Practical Uses Of Mindfulness During Organizational Change

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Submitted to the Program of Organizational Dynamics, College of Liberal and Professional Studies in the School of Arts and Sciences in Partial Fulfillment of the Requirements for the Degree of Master of Science in Organizational Dynamics at the University of Pennsylvania
Advisor: Dana S. Kaminstein

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Practical Uses Of Mindfulness During Organizational Change

Abstract
The Capstone examines whether mindfulness can be applied to help individuals and organizations cope with organizational change. Though mindfulness, defined as being fully aware in the present moment, has been examined in clinical, educational and other non-corporate settings, there remains a significant research gap towards understanding the potential uses and actual benefits of mindfulness in the workplace – particularly during organizational change.

Through this research, a Mindful Organizational Change Questionnaire was developed, based on both Eastern and Western constructs and statements thought to be most relevant to organizational change. Seventy-four (74) working professionals, across various industries, participated in this study between April and May 2016. This inquiry also included conducting fifteen (15) qualitative interviews with Change Leaders.

When triangulating the data, results indicated that, though participants have some natural capacity to be mindful, there is an opportunity for them to increase their levels of mindfulness during change, which may be highly beneficial.

Furthermore, when reviewing the quantitative data related to both mindfulness facets and change elements, Change Leaders scored consistently lower when compared with the Overall Averages. Likewise, Generation Ys scored higher than Change Leaders in all facets with the exception of “Positivity and Organizational Change.”

Thus, it can be concluded that mindfulness practices (such as meditation and other mindful interventions) could be extremely beneficial towards helping individuals and leaders cope with organizational change.

Keywords
Organizational Change, Mindfulness, Change, Leadership

Disciplines
Organizational Behavior and Theory | Training and Development

Comments
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PRACTICAL USES OF MINDFULNESS
DURING ORGANIZATIONAL CHANGE

by

Ann-Marie A. Behringer

Submitted to the Program of Organizational Dynamics,
College of Liberal and Professional Studies
in the School of Arts and Sciences
in Partial Fulfillment of the Requirements for the Degree of
Master of Science in Organizational Dynamics at the
University of Pennsylvania

Philadelphia, Pennsylvania

2019
PRACTICAL USES OF MINDFULNESS

DURING ORGANIZATIONAL CHANGE

Approved by:

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ABSTRACT

The Capstone examines whether mindfulness can be applied to help individuals and organizations cope with organizational change. Though mindfulness, defined as being fully aware in the present moment, has been examined in clinical, educational and other non-corporate settings, there remains a significant research gap towards understanding the potential uses and actual benefits of mindfulness in the workplace – particularly during organizational change.

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ACKNOWLEDGEMENTS

My most sincere appreciation is extended to Dr. Dana S. Kaminstein, my capstone course advisor, who guided me during this long journey, and to Dr. Alan M. Barstow, my capstone reader, for their interest and support during the preparation of this document. I would also like to thank the entire Organizational Dynamics program staff, especially Meredith Methlie and Rasheeda Hubert, for their support along the way.
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CHAPTER 1

INTRODUCTION

Background

Though “change” has always been an aspect of the human journey, it appears as if there are few means for effectively navigating through and coping with it, particularly in organizational settings. One new possibility to consider, which has been shown to have positive effects on physical and psychological well-being, and adopted by notable organizations, such as Google, are practices associated with mindfulness (defined as conscious awareness in the present moment). As mindfulness has not been studied extensively as a way to cope with change, my research question for this Capstone is:

*How can mindfulness be applied (i.e. tools, practices and behaviors) to help individuals and organizations cope with organizational change?*

This inquiry encompasses change leaders and employees’ at all organizational levels, who have sponsored, led, participated in and/or have been impacted by change (regardless of whether the change was viewed as either positive or negative). This has enabled me to obtain a perspective on this topic from multiple frames in understanding how mindfulness principles can be applied. And, while most mindfulness-related studies have been used in clinical, educational and other non-organizational settings, this research seeks to discover what specific mindfulness interventions might be mutually-beneficial for organizations and individuals involved in workplace change.

Other Research Goals

Throughout history, “change” has been a worthy challenge and focal point for reflection. As early as 500 BC, the ancient philosopher, Heraclitus noted that all things
will continue to change as it is never-ending (Mark, 2010). In the 1500s, Niccolo
Machiavelli advised leaders in *The Prince* of peoples’ natural resistance to change:

> And let it be noted that there is no more delicate matter to take in hand, nor more
dangerous to conduct, nor more doubtful in its success, than to set up as a leader
in the introduction of changes. For he who innovates will have for his enemies
all those who are well off under the existing order of things, and only lukewarm
supporters in those who might be better off under the new (Machiavelli, 1980, pg.
55).

Fast forward into the 21st century, it appears that “change has not changed”, with the
exception that the world has grown even more complex (Senturia et al., 2008; Rowland
and Higgs, 2008) and change has accelerated at an ever-increasing pace (Connor, 2006;
Rowland and Higgs, 2008; Kotter, 2012; Buckley, 2013). This can be attributed to
globalization, technological advances, changing markets, economic, production and
demographic shifts - to name a few (Rowland and Higgs, 2008) that are altering how
organizations operate and respond to change. Traditional business models and the prior
ways of doing things (i.e. structures, processes) no longer work in today’s dynamic
environment (Kotter, 2012). As new challenges continuously arise, organizations try to
adapt. “That is why the ability to incorporate big changes into the DNA of an enterprise
while driving operating results is a much sought-after competency” (Buckley, 2013, p. 1).

Additionally, what further propels this urgency to identify effective solutions for
leading organizational change, is a common belief that 70% of all change efforts fail.
This statistic has been frequently quoted by credible authorities over the years as a well-
known fact (Senturia et al., (Bain and Company) 2008; Rowland and Higgs, 2008; Keller and Aiken, McKinsey & Company 2009; Blanchard, 2010; Ashkenas, 2013; Kotter International Website, 2016). Contrarily, Hughes’ (2011) powerful research counters this notion, positing a lack of valid and reliable evidence to support a 70% failure rate; this is due to reasons such as change is ambiguous and context-dependent, that success or failure will vary based on individual perceptions, and not everything can be measured. Despite Hughes research, the 70% failure rate still prevails in the literature as it continues to be quoted in numerous, noteworthy publications.

Key reasons often cited as to why organizational change fails, are because individuals are not involved in understanding the business case for change nor are they engaged in implementing it (Blanchard, 2010). Kotter contends in his 1995 Harvard Business Review article, “Leading Change: Why Transformation Efforts Fail” that well over 50% of the 100 companies he’s observed, have failed to establish a great enough sense of urgency during the first phase of change. Kotter attributes this failure to managers undervaluing the effort it takes to move people out of their comfort zones, having a false belief that urgency has increased, being impatient with the desire to move forward and having more managers, rather than leaders, leading change.

Whether or not the “change failure rate” is at 70, or some other percentage rate, it is quite clear that our world today is becoming even more complex and people are still having difficulty coping with change. Based on my 30+ years of human resources and change management experience, it seems highly likely that organizations will put even
more pressure on leaders and individuals in the future to increase and accelerate the pace of change, while also ensuring that the change is sustainable. Moreover, individuals, whether leading change and/or impacted by it, are faced with the additional challenge of understanding and coping with the change themselves, even if they do not fully understand the need for change or are inundated with competing priorities. Taking it a step further, an assumption I have based on my experience, is that change becomes even more difficult when individual fears and anxiety levels are not addressed. If common questions such as “Why do we need to change?” “What is the impact of the change on me?” and, “How will I be supported during this change (e.g. training, etc.)?” remain unanswered, people will believe that they have little or no control over the change. This is more likely to happen when individuals are “told” to change without a choice and/or not being involved in the change (Langer and Moldoveanu, 2000, Keller and Aiken, (McKinsey & Company) 2009; Kotter, 2016). Thus, they might feel uncertain about their future and may try to resist the change through past routines and ways of doing things, as an example (Langer and Moldoveanu, 2000; Blanchard, 2010; Aviles and Dent, 2015).

The impact of change on humans is eloquently described in Alvin Toffler’s prophetic book, *Future Shock* (1970). It highlights the stress and confusion that individuals experience when they are overwhelmed with change and are unprepared to cope with it. Toffler posits, that the accelerated pace of change has personal, psychological and sociological consequences. “Unless man quickly learns to control the
rate of change in his personal affairs as well as in society at large, we are doomed to a massive adaptational breakdown” (Toffler, 1970, pg. 2). Because there is an incongruence between the increased rate of change and an individual’s capacity to respond to it, this “gap” increases even more. Surprisingly, though written in 1970, this book further reinforces today’s business case for my research topic. I believe that change has become like multiple tidal waves – a tsunami, with people even more stressed and overwhelmed by it, and without any solutions for effectively dealing with it. Thus, new and fresh approaches to coping with organizational change, such as mindfulness, urgently need to be discovered, researched and investigated to determine their applicability and effectiveness in the workplace.

Though the benefits of mindfulness (primarily accomplished through sitting meditation by paying attention to one’s breath, but also through yoga, tai chi, qigong, etc.) have been shown to enhance attention, awareness, emotional regulation, positive relationships, coping skills and reduce stress and anxiety (all key aspects or effects of organizational change), most of these studies have been conducted in clinical or non-organizational settings. However, as a result of the benefits associated with mindfulness, there has been a growing interest in its’ potential applications in the workplace. Though rigorous organizational studies are severely limited, a few recent ones suggest that mindfulness can improve one’s well-being at work in a number of ways – improved psychological health, performance (i.e. greater productivity), teamwork and job satisfaction with less burnout, stress, anxiety, conflict, negativity, absenteeism, and turnover (Kabat-Zinn, 1982; Baer 2003; Baer et al., 2004 & 2008; Baer et al., 2011;
Pirson, Langer et al., 2012; Hart et al., 2013; Janssen et al., 2015; Good et al., 2016; Yu et al., 2017, Kersemaekers et al., 2018). Additionally, it may also lead to greater self-compassion, engagement and resilience (Good et al., 2016), all of which can support individuals, as well as their respective organizations.

Based on these promising outcomes, it would be “mindless” not to further investigate this worthy topic and learn more about mindfulness - what practices might assist people (and also organizations) during turbulent times of change, how it is measured and its’ potential impact. Also, it will be interesting to understand the practicality of applying meditation and other mindful practices in an organizational setting.

Assumptions & Goals

To bring to conscious awareness any potential biases that I may have prior to fully embarking on this research, I will disclose some key assumptions that exist at the present time. One assumption is that, I believe there are practical ways that organizations can apply mindfulness during change which benefit individuals, leaders and organizations, though I am unaware how these are/can be employed in the workplace. Another assumption is that only a few organizations apply mindfulness in the workplace, let alone use it specifically as a practice to help individuals lead and/or manage change. This may be because companies are reluctant to consider mindfulness as stigmas might exist (e.g. it’s too “Zen” or “way out there”), they may not know how it can be applied, and/or it may be viewed as too personal to practice in the workplace. In addition, I believe that
mindfulness, through the use of meditation, can help individuals cope with unsettling organizational changes. As clinical studies indicate positive results regarding one’s overall well-being and reducing stress (Walach, 2006; Hart et al., 2013), I believe it can benefit organizations.

Finally, another assumption that I have, is that leaders cannot “manage” change in people – this “choice” has to come from within the individual. In my experience, I’ve realized that people need to feel that they have some degree of control, autonomy and involvement in the change as opposed to being in a prolonged state of uncertainty and being “told” rather than asked what they need to do. When people have more choices and involvement, there is greater acceptance of change and ownership in the success of the outcomes, should they choose to embrace it. However, this is a shared responsibility, as organizations and their leaders can also choose to lead and implement change in compassionate, thoughtful and inclusive ways that can help organizational members more readily cope with it. I believe that mindfulness might enhance this “human side” of change.

Brief Overview of the Literature

While mindfulness, has become popular over the past few years, there is more general information about this topic (over 66,100,000 results on Google as of June 18, 2017; 141,000,000 on October 14, 2018) than peer-reviewed sources on “mindfulness” (i.e. 21,900 results on Google Scholar as of June 18, 2017 and 38,400 as of October 14, 2018). It is interesting to note the proliferation of general and peer-reviewed articles since 2017. Likewise, a search on “organizational change” generated 343,000 peer-
reviewed articles in 2017, compared to 352,000 articles as of October 2018. There were even less peer-reviewed outcomes (15,800 in June 2017 compared to 21,300 in October, 2018) when combining “mindfulness and organizational change”. However, when I actually reviewed the first ten pages of peer-reviewed results, none (0) of the articles pertained to mindfulness and organizational change. Rather, the search produced articles on either “mindfulness” or “change” or on “organizations” or “peer-reviewed”. On the surface, it seems as if the majority of the literature is not peer-reviewed nor deeply investigated, as linkages between “mindfulness” and “organizational change” appear to be loosely joined at best or non-existent.

Similarly, based on this appraisal of peer-reviewed literature, there appears to be a limited amount of information on mindfulness as it’s applied in the workplace. While the majority of research has been clinical in nature, these studies, in general, include small numbers of meditators and larger sample sizes of non-meditators, with limited diversity related to race, gender, culture, occupation, etc. This is not surprising, given a recent study (Olano et al., 2015) which indicated that only 13.1% of US adults engage in mindfulness practices (e.g. meditation, yoga, tai chi, qigong), the majority of which are women. Men are only half as likely to participate, whereas, there was lower engagement among Hispanics and African Americans in mindfulness practices (Olano et al., 2015).

What I also found at a high level, was that numerous mindfulness constructs exist, each with their own strengths and limitations, rather than a common one (Bishop et al., 2004; Baer 2006, 2011). Additionally, research outcomes, drawing from empirical evidence and/or various self-reporting instruments, primarily in clinical settings,
indicated that mindfulness had positive effects on well-being. However, research-based applications of mindfulness in workplace settings were limited with only a few notable exceptions. There were even fewer peer-reviewed studies related to both mindfulness and organizational change. Most of these investigations were based on a systematic review or synthesis of the literature and more theoretical in nature. There was a scarcity of qualitative, quantitative, and mixed methods research in this field and no longitudinal studies were found in the literature. Thus, there was and still is, a tremendous opportunity for further research in this field.

Research Methods

In response to a full review of the literature and the lack of studies related to mindfulness and organizational change, I conducted my own investigation, using both qualitative and quantitative methods of inquiry. Behavioral-based interviews were conducted with fifteen (15) change leaders. The purpose was to learn about change leaders’ specific thoughts, feelings, actions and behaviors when leading organizational change. These internal and external responses were then coded to ascertain if they were linked with identifiable facets of mindfulness (e.g. awareness of self, others and the environment, acceptance without judging, non-reactivity, etc.), which might be beneficial practices when leading successful organizational change. Additionally, a survey questionnaire was developed by drawing on established mindfulness constructs and statements which, I believe, would be highly applicable to the context of workplace change. The primary target population for this survey was a diverse group of seventy-four (74) working professionals enrolled in the Masters of Science Organizational
Dynamics Program at the University of Pennsylvania. All of these approaches will hopefully culminate in identifying core mindfulness practices, tools and insights that may be useful during organizational change.

Overview

This research paper is organized as follows.

Chapter 2 includes a full review of the literature with a strong emphasis on peer-reviewed research. This section includes common definitions of mindfulness and change, the nature and pace of change, reactions to change and how people cope with it. In addition, the benefits of mindfulness will be discussed, along with core definitions, as well as, a summary and comparison of existing mindfulness constructs and their levels of reliability and validity (with details located in the Appendix). This is followed by a review of suggested and/or current applications of mindfulness in the workplace, how it can benefit people and organizations and then, how it is used (or theoretically could be applied) specifically in relation to organizational change. Research assumptions and gaps in the literature will also be addressed.

Chapter 3 will review the research methodology and the data collection process employed to obtain key insights relevant to my main research question. As both qualitative and quantitative instruments (interviews and questionnaires) were a pivotal part of this research, a discussion of how these tools were developed and the attempt to triangulate both sets of data are also included in this Chapter and the Appendix.

Examining the raw data from multiple angles, Chapter 4 reveals the key qualitative and quantitative findings.
Finally, Chapter 5 provides an in-depth analysis of the data and an interpretation of the results, compared with the literature. Limitations of the research, as well as practical implications regarding how mindfulness can be applied during workplace change will also be discussed. This will be followed by recommendations for future research and ending with key conclusions and insights.

Summary:

This Chapter introduced the ubiquitous and problematic nature of change throughout history and identified the main purpose of this paper which is to explore practical uses of mindfulness during organizational change. As change is occurring at a faster pace and becoming even more complex, due to globalization, new technologies and other factors, the impact on people is even more dramatic today than it was in the past. This, coupled with the inability to effectively measure organizational change success/failure rates, presents a compelling business case for further examination of new approaches, specifically mindfulness and its related practices, to help individuals and organizations better cope and adapt to change.
CHAPTER 2
LITERATURE REVIEW

Introduction

This Chapter will begin with a review of common definitions of organizational change, and discuss whether or not the pace of change is accelerating. This will be followed by reactions to change and how people typically cope with it. Next, the notion of mindfulness (i.e. conscious awareness in the present) will be discussed from both Eastern and Western perspectives – What are the benefits? How is it defined and measured? I will then examine, based on the literature, how mindfulness is currently being used (or could potentially be used) in organizations. Next, and at the heart of this research, I will discuss how mindfulness is being utilized in the workplace to cope with organizational change. Throughout this entire chapter, literature gaps will be identified.

Organizational Change Defined

It was enlightening to learn that there is not a common definition of “organizational change” in the literature. Unlike most change authors, Deborah Rowland and Malcolm Higgs endeavored to define change in their 2008 book, *Sustaining Change* as “efforts to fundamentally improve the performance and functioning of an entire organization, which requires the letting go of past attachments and behavior and moving toward a new and different way of operating” (pg. 21). In Rowland’s latest book, *Still Moving – How to Lead Mindful Change*, change is more succinctly defined as “the disturbance of repeating patterns” (2017, pg. 218). This, relates to the disturbance in the *external* system or organization that needs to change and the *internal* way in which one perceives and responds it. This appears similar with William Bridges view that change is
situation, whereas transition is psychological as people “internalize and come to terms
with the details of the new situation that the change brings about” (2003, pg. 3). Both
authors consider the human aspect of change – how one perceives and copes with it.

Is the Pace of Change (Still) Accelerating?

As mentioned in Chapter 1, there are many credible change researchers who
believe that the pace of change is accelerating (e.g. Kotter, 2012; Buckley, 2013).
non-stop, requiring people to be in a continual state of adaptation. The world has
become increasingly complex as a result of social, economic, political and technological
changes. This, in turn, has impacted how businesses operate as they adopt and
implement new operating models to stay ahead of the competition (Rowland and Higgs,
2008; Buckley, 2013; Rowland, 2017; First, 2017), further complicating one’s ability to
cope with this environment. As a result, a new neurological affliction was discovered -
Attention Deficit Trait (ADT) (Hallowell, 2005), attributed to people who have trouble
prioritizing, staying organized and focused and making good decisions. Thus, it may be
even more difficult to implement organizational change in today’s ever-changing
environment, as well as, how organizational members cope with and adapt to it.

Though it’s been theorized that the pace of change is accelerating, it is difficult to
prove it, especially when examining the quantifiable measures (The Economist, 2015).
Despite a few statistics which support that the pace is increasing (e.g. the annual growth
rate of patents for the last 5 years averaged 11%, compared with a long-term average rate
of 6 percent), most of the indicators cited by The Economist (2015) suggest otherwise.

For instance:

- The rate of new consumer-product launches is slowing down or declining
- Production speed (“work-in-progress” to sales points) is slowing down
- In 2014, large American companies held 29 days of inventory, slightly less than in 2000. While inventory ratios improved in the 1990s, they have deteriorated since 2011
- The odds of a company exiting the S&P 500 index in any given year is about 1:20; the same rate as it has averaged for 50 years; half of these exits are due to takeovers
- New firm creations are near their lowest since records began
- Large “passive” fund managers such as BlackRock and Vanguard have grown larger in the past decade and their holding patterns are indefinite
- The median tenure of CEOs was 5 years in 2014, up from 3 years in 2007 (The Economist, 2015 (online version))

The Economist (2015) attributes this perception of accelerated change to the overload of information and data that is now available, fortified by the frequency of new technologies being introduced. Interestingly, Bridges posits that “the hardest thing to deal with is not the pace of change but changes in the acceleration of that pace (2009, p. 102).” Any change in the pace (whether acceleration or deceleration), will make it difficult for people to adapt as people are torn between the status quo (habit, stability) and novelty.

So what does one make of all of this? In my opinion, whether or not the pace of change has accelerated or not, it certainly feels like it. And I wonder, based on the overflow of information and technological advances, if the number of priorities on business leaders’ “to do” lists have become even more burdensome as a result. Perhaps the pace of change is not accelerating as validated by the aforementioned indicators. Rather, expectations and the number of demands required to keep up with the pace of
change have increased, let alone stay ahead of it. This environment of continuous change appears to be quite challenging for one to stay focused. Perhaps, ADT (Attention Deficit Trait) is the “new normal.”

Causes of Organizational Change-Related Stress

Given this dynamic environment and people being heavily relied upon to effectively lead and execute organizational change, it is important to examine the causes of stress and how one copes with it. Research consistently indicates that uncertainty (lack of control) and stress are closely associated with organizational change as it can result in anxiety, loss of status and/or job, reduced autonomy, extra work, increased conflict, and threats to one’s psychological well-being (Judge et al., 1999; Chauvin et al., 2013; Smollan, 2015). Thus, it is important to understand the stress-related factors that contribute to change and how one can successfully cope with it.

Chauvin and colleagues (2013) used the Job Content Questionnaire (JCQ) to examine five (5) factors that contributed to psychological stress during organizational change: psychological demands (e.g. excessive workload, lack of time to do it), decision latitude (e.g. ability to make decisions, having a “say”, variety and creativity of work), supervisor support (e.g. pays attention, is helpful and concerned), co-worker support (e.g. friendly, helpful, competent) and organizational difficulties (e.g. conflicting demands, lack of information, useless processes, unclear responsibilities). What they found, in a study of 973 employees from the University of Strasbourg, was that “psychological demands” were the primary predictor of stress during organizational change, while “organizational difficulties” was a secondary factor (Chauvin et al., 2013).
Similarly, Smollan (2015) examined causes of stress before, during and after organizational change, while also considering that some degree of stress is present in any job. In addition to increasing stress, organizational change can also reduce stress or have little impact on it. Based on a literature review of both qualitative and quantitative studies, the most common workplace stressors include interpersonal conflict (poor relationships and communication, lack of support), increased workload (empirical studies have shown that organizational change often increases workload (Smollan, 2015)), too stringent or arbitrary policies, and inadequate resources – many of which are intensified by organizational change as it is typically initiated to increase productivity and reduce costs (Smollan, 2015). Additionally, Smollan (2015) found that “injustice” (unfairness) triggered negative emotions during change.

In a small study of 31 clinical and non-clinical workers within a public healthcare environment in New Zealand, Smollan (2015) discovered that the transition phase (which begins when respondents become aware of the change) was the most stressful. This was because it created job uncertainty among employees (layoffs, re-deployments, applying for new roles) and stress caused by seeing others lose their jobs, lack of information (reasons for the change nor its’ impact was communicated) and management support and when employee engagement (limited input, participation and consultation) was discouraged. Smollan (2015) found that stress increased post-implementation due to heavier workloads with fewer resources and required building new relationships and skills, with continued job uncertainty.
One way to determine if change is successful is to review individual responses to change (Oreg et al., 2011). Oreg et al., (2011) coded specific reactions to change (Table 1), as well as, antecedents and consequences (Table 2), based on a 60-year review (1947-2007) of over 700 published articles, resulting in 79 quantitative studies.

Table 1. People’s Reactions to Change (Oreg et al., 2011)

<table>
<thead>
<tr>
<th>Affective Reactions (how change participants feel)</th>
<th>Cognitive Reactions (what they are thinking)</th>
<th>Behavioral Reactions (what they intend to do in response to change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress, anxiety, fatigue, lack of control, negative emotions (tired, depressed, worried, angry, fearful), positive emotions (e.g. pleasantness, acceptance), change-related satisfaction, commitment</td>
<td>Sense-making (what do participants believe the change means), rating of change effectiveness, decision satisfaction, change commitment, support for the business strategy, openness to change (looking at it as an opportunity, cognitive avoidance - not thinking about the change), perceived fairness</td>
<td>Actively involved in change activities, seeking information, feedback, withdrawal behaviors (quitting, giving up, absenteeism), intentions of resisting or supporting, commitment to the change, openness and acceptance, coping, innovation receptivity</td>
</tr>
</tbody>
</table>
Table 2. Reactions to Change – Antecedents & Consequences (Oreg et al., 2011)

<table>
<thead>
<tr>
<th>Pre-Change Antecedents (reasons for certain reactions to change which existed prior to the introduction)</th>
<th>Change Antecedents (post-change attitudes/outcomes)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recipient Characteristics</strong> (that predict and explain their reactions)</td>
<td><strong>Change Process Variables</strong></td>
</tr>
<tr>
<td>-Locus of Control – an increased sense of control improved peoples’ reactions to change</td>
<td>-Participation/Involvement</td>
</tr>
<tr>
<td>-Self-Efficacy – higher levels were associated with acceptance of change, commitment and greater coping</td>
<td>-Communication/Informed</td>
</tr>
<tr>
<td>-Neuroticism</td>
<td>-Perceived Justice/Fairness</td>
</tr>
<tr>
<td>-Affectivity (positive vs. negative) – negative emotions were associated with negative appraisals of change</td>
<td>-Leader Support</td>
</tr>
<tr>
<td>-Tolerance for Ambiguity</td>
<td>-Manager’s Change Competence</td>
</tr>
<tr>
<td>-Self-Esteem</td>
<td></td>
</tr>
<tr>
<td>-Openness to Experience</td>
<td>Perceived Benefit/Harm:</td>
</tr>
<tr>
<td>-Conscientiousness</td>
<td>-Anticipation of Negative or Positive Outcomes (downsizing, workload, job/office design, autonomy, schedule, complexity, loss of control)</td>
</tr>
<tr>
<td>-Motivational Needs – achievement and growth</td>
<td>-Job Insecurity</td>
</tr>
<tr>
<td>-Demographic variables – age, gender</td>
<td>-Career Impact</td>
</tr>
<tr>
<td><strong>Context:</strong></td>
<td>-Financial Rewards/Changes in Compensation</td>
</tr>
<tr>
<td>-Supportive Environment/Perceived Participation</td>
<td>-Organizational Practices</td>
</tr>
<tr>
<td>-Trustworthy Management &amp; Organizational Commitment &amp; Integrity</td>
<td></td>
</tr>
<tr>
<td>-Culture (fit with Values) &amp; Climate (communication, flexible policies)</td>
<td></td>
</tr>
</tbody>
</table>
Table 1 depicts how organizational members are internally processing the change (what they are feeling and thinking – whether positive, negative or with mixed emotions) and how they respond to the change (what they will do). Table 2 represents Pre-Change Antecedents, which include internal characteristics (e.g. self-efficacy) and context (e.g. supportive work environment) which existed prior to the introduction of the change and influence one’s reactions to it. This is mitigated by Change Antecedents (i.e. process variables), such as leadership support or lack thereof, that effect change outcomes (i.e. Change Consequences), such as one’s level of commitment to the change and attitudes, behaviors and reactions towards adapting to the change or resisting it.

Though these tables are mitigated by inconsistencies in researchers’ interpretations of terminology, definitions, and phases, Oreg et al., (2011) still recommends that these insights will provide practical direction towards improving reactions to change and reducing resistance.

Coping with Organizational Change

Folkman, Lazarus and colleagues (2008) also examined ways in which people cope with change and defined “coping” as “cognitive and behavioral efforts to deal with experiences (internal and external) that tax or exceed one’s resources” (Fugate et al., 2008, p. 1). It is contextual based on how the individual appraises his/her situation - what is at stake and how one responds to the stressful encounter (i.e. what they view as options for coping). Judge et al., (1999), developed an instrument used to measure seven (7) dispositions or traits that were most closely related to coping with change.
Table 3: Seven (7) Dispositions for Coping with Change (Judge et al., 1999)

<table>
<thead>
<tr>
<th>Traits/Definitions</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of Control - One’s perception of his/her ability to have control over their own lives. An internal locus of control indicates a person believes they have more control over their environment and successes, whereas, an external focus indicates they have less control since this is mitigated by external factors (e.g. chance, powerful others)</td>
<td>These 4 traits were combined into 1 of 2 Factors, entitled “Positive Self-Concept”, which can be developed and altered</td>
</tr>
<tr>
<td>Self-Efficacy - Belief in oneself that s/he has the right skills (i.e. cognitive, social, emotional and behavioral skills) to execute a course of action to accomplish a particular objective. An example: “When I make plans, I am certain to make them work.”</td>
<td></td>
</tr>
<tr>
<td>Self-Esteem - A holistic perception of personal competence and worthiness - the extent to which one believes that s/he is capable, significant, successful and worthy</td>
<td></td>
</tr>
<tr>
<td>Positive Affectivity (PA) - A tendency to experience positive emotional states, characterized by well-being, confidence and calmness, energy, gregariousness and affiliation; associated with overall psychological well-being and health</td>
<td></td>
</tr>
<tr>
<td>Openness to Experience - Linked with intelligence, perceptiveness, creativity, imagination, tolerance, culturedness and inquisitiveness – associated with effective coping and adjustment; high scorers on this trait tend to be tolerant and inquisitive when confronted with novel situations (as well as actively seeking out such situations) (Judge et al., 1999)</td>
<td>One of the Big 5 personality traits These 3 traits were combined into 1 of 2 Factors, entitled “Risk Tolerance” which are less malleable than “Positive Self-Concept”</td>
</tr>
<tr>
<td>Tolerance for Ambiguity (Uncertainty) - A tendency to perceive or interpret ambiguous situations as “desirable” as opposed to viewing these as sources of “threat”. An example: “I do not like to get started in group projects unless I feel assured that the project will be successful.” In one study “comfort with ambiguity” was a characteristic of successful change agents (Judge et al., 1999)</td>
<td></td>
</tr>
<tr>
<td>Risk Aversion - Associated with a security orientation as opposed to seeing risk in terms of potential gains. An example: “I am not willing to take risks when choosing a job or a company to work for.”</td>
<td>Negatively related to coping</td>
</tr>
</tbody>
</table>
Table 3 depicts these seven (7) traits for positively coping with change, with the exception of “Risk Aversion” which negatively relates to coping abilities. Both “Positive Affectivity” and “Tolerance for Ambiguity” were the two strongest traits associated with positively coping with change. These seven traits were then divided among two factors, “Positive Self-Concept”, consisting of Locus of Control, Self-Efficacy, Self-Esteem and Positive Affectivity and “Risk Tolerance”, entailing, Openness to Experience, Tolerance for Ambiguity, and Risk Aversion. The two factors further illustrate how individuals may perceive change, based on certain personality traits and risk tolerance and, thus, respond to it (whether positively or negatively).

Judge et al., (1999) cautioned that, though it may appear beneficial to employ people with these traits, one should consider a diverse workforce with a blend of traits (e.g. risk adverse and risk tolerant). Additionally, some traits, which comprise the “Positive Self Concept” factor, can be developed and altered, whereas “Risk Tolerance” traits are less malleable.

A more common approach to better comprehend how people cope with stressful encounters, such as change, starts with a cognitive appraisal/evaluation of the situation to determine how the experience relates to the individual’s well-being (Folkman, Lazarus et al., 1986). The individual will initially assess what is at stake (is there a benefit, potential harm, loss and/or risk to the individual?) and then determine if anything can be done to realize the benefit or overcome the potential harm/threat. Coping options could be to (Folkman et al., 1986):

- Alter the situation (change or do something about it)
- Accept it
• Seek more information before acting
• Hold back from acting impulsively/being counterproductive (by praying, jogging, etc.)

These appraisal/evaluation steps will converge to establish whether or not the situation is significant to the individual’s well-being (i.e. what is at stake and the risk). Coping options are then employed to regulate stressful emotions and alter the situation if it is causing distress.

Folkman, Lazarus et al., (1986) developed eight (8) coping scales that provide a range of strategies for coping with stress:
<table>
<thead>
<tr>
<th>Coping Strategy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confrontative Coping</td>
<td>Aggressive efforts to alter the situation (standing one’s ground, fighting for what one wants, trying to get the person to change his/her mind). This suggests a degree of hostility (expressing anger towards the person who caused the problem, risk-taking)</td>
</tr>
<tr>
<td>Distancing</td>
<td>Detaching oneself from the situation (didn’t let it get to me, tried to forget about it or see the positive side). More of an emotional-based response</td>
</tr>
<tr>
<td>Self-Control</td>
<td>Regulating one’s feelings (keeping feelings to oneself, not burning bridges, leaving things open and trying not to act too hastily or follow the first hunch)</td>
</tr>
<tr>
<td>Seeking Social Support</td>
<td>Efforts to seek informational support (speak with someone to find out more about the situation or who could do something about the problem) and emotional support (empathy and understanding) from someone</td>
</tr>
<tr>
<td>Accepting Responsibility</td>
<td>Acknowledge one’s own role in the problem (criticizing oneself, realizing the problem was brought on by oneself or trying to make things right (apologizing, or doing things differently next time)</td>
</tr>
<tr>
<td>Escape-Avoidance</td>
<td>Wishful thinking that the situation would go away or disappear. Or trying to make oneself feel better by eating, drinking, smoking, avoid people, sleeping more. More of an emotion-based response</td>
</tr>
<tr>
<td>Planful Problem-Solving</td>
<td>Cool, deliberate problem-focused efforts to alter the situation (knowing what has to be done and doubling efforts to make things work) coupled with an analytic approach to solving the problem (plan of action and different solutions)</td>
</tr>
<tr>
<td>Positive Re-Appraisal</td>
<td>Efforts to create positive meaning by focusing on personal growth (changed or grew as a person in a good way, coming out of the experience better than I went into, found new faith) – this may also be influenced by the outcome of an encounter rather than vice versa</td>
</tr>
</tbody>
</table>
What the researchers found was, when the coping situation was work-related, “self-control” and “planful problem-solving” were often strategies used to reduce workplace stress. When the situation was viewed as changeable, “accepting responsibility”, “confrontative coping”, “planful problem-solving” and “positive reappraisal” strategies were employed; these latter two approaches were also found to be most effective in leading to satisfactory outcomes when situations were viewed as changeable. It was found that “positive reappraisal” may facilitate problem-focused forms of coping. Equally important, in encounters that were viewed as less changeable “distancing” and “escape-avoidance” were used as more emotion-based ways of coping. Though unsatisfactory outcomes were associated with “confrontative coping”, it does not always lead to a negative outcome as all of these strategies are context-dependent and based on the skill level that is employed.

Fugate et al., (2008) examined the role of positive and negative emotions in coping with organizational change. Though previous research by this team indicated the benefits for employing positive emotions (i.e. confidence, security, hopefulness, eagerness, etc. – “control strategies”) during change, a more recent examination by Fugate et al., (2008) revealed that there was not support for the value of positive emotions (though only 141 employees within a single organization were studied). The researchers’ interpretation was that there were limited benefits in only emphasizing the “positives” of organizational change. Fugate et al., (2008) also found that when employees view change negatively (i.e. a potential threat or harm in pay, job security, etc.), this is often associated with reduced control and increased escape coping strategies.
These negative emotions were linked with increased sick time, resistance to change, reduced performance and the potential for turnover.

As such, the authors recommend the following actions to help employees’ cope with organizational change: Communicate change in a way that addresses concerns about the potential threats/harms, reduce uncertainty through employee involvement so people can influence the process, understand their roles and have greater control over their future (Fugate et al., 2008). The authors also advocate for managers to be role models by demonstrating productive coping strategies and sharing their own concerns and experiences, as well as recognizing small “wins” to increase positive emotions and commitment (Fugate et al., 2008).

This section defined organizational change, based on Rowland’s and Bridges’ perspectives, as an overarching definition seems to be nonexistent in the literature. Next, though it appears as if the pace of change is accelerating, there is limited quantifiable data supporting this assertion. Rather, there is an abundance of information, overloading one’s capacity to effectively function in the workplace, let alone, cope with change. As uncertainty and stress are closely associated with change, possible causes of stress and workplace conditions and behaviors that exacerbate uncertainty and stress were also covered. Finally, individual traits and organizational factors, influence perceptions of change and how one responds and copes with it. Though the literature describes positive management strategies and actions that can be effectively applied to mitigate stress and uncertainty, one would believe that more change initiatives would be successful. As this does not appear to be the case, I will now explore an alternative approach by examining
the mindfulness construct to determine if this may be useful for individuals when coping with change.

**Mindfulness – Overview and Benefits**

Mindfulness has been of growing interest since the 1970s. This is because studies, primarily in the fields of psychology, medicine, education and neuroscience, have shown that mindfulness interventions have positive effects on physical (e.g. chronic pain, illness, and insomnia) and mental well-being (e.g. reduced anxiety, stress and depression). It has also been associated with enhanced emotional regulation and greater cognitive flexibility (Feldman, 2006, Baer, 2011, Pirson, Langer et al., 2012; Hart et al., 2013, Good et al., 2016).

A 2015 Harvard study reported that participants in an eight week mindfulness-based program used 43 percent fewer medical services than they had in the prior year (The Times, 2017). Mindfulness has also been associated with improved breathing rates, heart rhythm, and the deceleration, stalling or even reversal of brain degeneration as a result of aging, reduced inflammation and symptoms associated with, rheumatoid arthritis, multiple sclerosis, fibromyalgia, psoriasis, dementia and HIV (Hyland et al., 2015; Good et al., 2016; The Times, 2017). One study, using magnetic resonance imaging (MRI), revealed that mindfulness produced increases in parts of the brain that can reduce anxiety, increase happiness and boost the immune function (Davidson, Kabat-Zinn, et al., 2002).

Mindfulness has also been linked with improved information processing, retention and problem-solving through greater creative divergent/convergent thinking (Good et al.,
It has also been associated with improving one’s attention and concentration. As the mind wanders approximately 50% of the time (Killingsworth & Gilbert, 2010), studies have shown that regular meditators are less distracted, can quickly notice when the mind wanders and be more adept at re-focusing on the present (Baer, 2003; Good et al., 2016).

Finally, higher levels of mindfulness have also been associated with less over- and under-engagement (e.g. rumination, thought-suppression), greater emotional intelligence (Feldman, 2006), a positive attitude and improved mood (Hyland et al., 2015). Mindfulness may also promote better coping skills, reduce maladaptive/avoidant behaviors and foster acceptance of reality in a non-judging way (Kabat-Zinn, 1982; Baer et al., 2003, 2004, 2008). Magnetic Resonance Imaging (MRI) has shown that by observing and labeling negative emotions without reacting to them, can reduce negative experiences and alter the brain by shrinking the amygdala, resulting in a less active limbic system (Hulsheger et al., 2013; Good et al., 2016).

Though there is an ongoing debate that improved emotional regulation can diminish reactions to positive stimuli, this appears to be a minor consequence based on the body of evidence that mindfulness can improve and support overall well-being (Good et al., 2016). Equally important, mindfulness also appears to be extremely beneficial in helping people manage anxiety, stress, fear and uncertainty – all common reactions to organizational change.
Mindfulness – Two Schools of Thought

A review of mindfulness literature identifies two schools of thought. The most popular, advanced by Jon Kabat-Zinn (Baer, 2011; Hart et al., 2013; Siegling & Petrides, 2014), is rooted in ancient Eastern philosophical and cultural traditions of Buddhism, with meditation as a key practice. Through meditation, one cultivates positive qualities such as wisdom, patience, clarity, compassion and reduced suffering (Kabat-Zinn, 1994; Baer et al., 2004). Studies suggest that regular (weekly) meditation practice is a better predictor of current mindfulness levels than accumulated practice over a number of years (Chadwick, 2008; Bergomi, 2015). Contrarily, the less popular (rarely mentioned in the research), Western view of mindfulness was pioneered by Ellen Langer in the 1980s, who conceived mindfulness from a socio-cognitive, information processing perspective (Weick and Sutcliffe, 2006 as cited in Andrei et al., 2016).

Eastern View & Definition

One of the earliest definitions of mindfulness, from an Eastern standpoint, was described by Nyanaponika Thera as “moment-to-moment awareness without judgment” (Haigh et al., 2011, p. 11). This was further refined by Jon Kabat-Zinn and is the most commonly used and cited definition of mindfulness found in the literature (Cardaciotto et al., 2008; Baer, 2011) though other operational definitions do exist (Black, 2011).

Simply put:

Mindfulness means paying attention in a particular way: on purpose, in the present moment and non-judgmentally (Kabat-Zinn, 1994, p.4)

He believes that everyone has the capacity to be mindful; it can be cultivated and exercised like a muscle (Kabat-Zinn, 2015). Being fully awake and seeing things as they
are in the *present* are key elements of mindfulness. Preoccupations with the past can result in regrets; concerns about the future can lead to worries of things that have not happened (Kabat-Zinn, 2013).

When we commit ourselves to paying attention in an open way, without falling prey to our own likes and dislikes, opinions and prejudices, projections and expectations, new possibilities open up and we have a chance to free ourselves from the straitjacket of unconsciousness (Kabat-Zinn, 1994, pg. 6)

Brown and Ryan (2003) define mindfulness as “receptive attention to and awareness of present moment events and experiences” (Hyland et al., 2015, p. 581). *Awareness* is the “radar” that monitors the internal thoughts, feelings, sensations and external (i.e. sights, sounds, smells, events) environment, whereas, *attention* heightens awareness of internal or external stimuli. One may be aware but not always attentive.

Meditation, is a common practice (Jha et al., 2007) by which one can deepen their attention and awareness (Kabat-Zinn, 1994) of thoughts and emotions to attain greater levels of mindfulness. During meditation, participants are asked to bring an open, curious and compassionate attitude, without expectations and:

- focus their attention on stimuli that are observable in the present moment, such as the breath or sounds that can be heard...If thoughts, emotions…arise, participants are instructed to observe them...in an accepting, non-reactive and non-judging (e.g. neither good/bad, true/false) stance even if the thoughts and feelings are unpleasant (Baer et al., 2008, 2011)

If the mind wanders, participants are ask to return their attention back to their breath. Thoughts may be labeled as positive and are observed and accepted (without judging or ruminating) as they come and go. As a result, one becomes more aware, focused and responds in a more detached way.
Mindfulness Based Stress Reduction (MBSR) training, founded by Kabat-Zinn in 1979, is an effective form of meditation used in clinical settings (Walach, 2006; Hart et al., 2013). The goals of MBSR are to increase awareness of automatic and habitual patterns that induce stress and learn techniques to reduce it, so as to enhance and sustain well-being (Lau et al., 2006). MBSR training, in general, is an 8-week program (Hyland et al., 2015). Participants meet weekly for 2 hours of instruction and then practice independently for 45 minutes per day, 6 days a week. An all-day support and feedback session is held during the 6th or 7th week. Mindful eating, walking, yoga and body scanning practices are also employed (Baer, 2003).

Eastern mindfulness practices foster greater awareness and attention in the present. Individuals are more attuned to their environment and can observe and regulate thoughts and emotions in an open and less-judgmental manner, which reduces stress and enhances well-being. Meditation is the most common practice used towards achieving mindfulness. Mindfulness-Based Stress Reduction (MBSR), has proven to be effective in clinical settings.

Western View & Definition

Alternatively, the Western view of mindfulness, originated by Ellen Langer, is defined as:

A state of conscious awareness in which the individual is implicitly aware of the context and content of information (Langer, 1992, p. 289). It is the process of drawing novel distinctions…as long as it is new to the viewer. This …makes us more aware of the context and perspective of our actions than if we rely on distinctions and categories drawn in the past (Langer and Moldoveanu, 2000, pp. 1-2).
Table 5: Mindfulness vs. Mindlessness (Langer)

<table>
<thead>
<tr>
<th>Mindfulness</th>
<th>Mindlessness</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>A heightened involvement and wakefulness in the present</em> (Langer &amp; Moldoveanu, 2000)</td>
<td><em>“When the lights are on and nobody’s home”</em> (Langer, 1989, p. 11)</td>
</tr>
<tr>
<td>Novelty – seeking and creating new categories for structuring perception by re-categorizing the way events/impressions were originally stored in memories. By drawing distinctions there is higher capacity and openness to view new Information and events from multiple perspectives based on context. “<em>Contexts control our behavior and our mindsets determine how we interpret each context</em>” (Langer, 1989, p.35). One is guided but not governed by rules and routines.</td>
<td>Learned information is, primarily, provided in absolute (e.g. “must be”) vs. conditional terms (e.g. “could be”). There is less awareness of context and rigid, over-reliance on old categories, scripts, and premature cognitive commitments (unconditional truths) drawn from the past. This is a result of allowing habits, rules, etc. to govern one’s behavior with little or no awareness of the present. One takes in information at “face value” or acts on autopilot without thinking critically or exploring other possible options, uses and applications.</td>
</tr>
</tbody>
</table>

For Langer, mindfulness is a learning and goal-oriented approach that can be linked with enhanced attention, creativity and problem-solving (Langer, 1989; Langer et al., 2000; Baer 2003). Many of her studies show that being on autopilot can negatively impact performance, cognitive functioning, psychological well-being, and even longevity (Langer, 1989, 1992, 1997; Hart et al., 2013). Langer’s approach to fostering mindfulness is done through brief, instructional interventions in everyday life. Mindlessness is “interrupted” when people are asked to consider information and events from new perspectives which may increase learning, creativity and a heightened state of awareness (Haigh et al., 2011; Hart et al., 2013). Her techniques encourage one to break away from old patterns of accepting information at face value (mindless behavior) and to critically consider alternative possibilities. Langer links her research to the workplace by positing that:
Fatigue, conflict and burnout can all result from being mired in old categories, trapped by old mindsets….For the employer and employee alike, mindfulness may increase flexibility, productivity, innovation, leadership ability and satisfaction” (Langer, 1989, p.133).

The purpose of mindfulness, according to Carson and Langer (2006) “is to increase cognitive and behavioral control, thereby facilitating people’s capacity to tolerate uncertainty, be less reactive, and more flexible, and to experience a more meaningful engagement with their environment” (Hart et al., 2013, p. 454). “Control” has been shown to reduce stress and improve overall health (Langer and Moldoveanu, 2000). Thus, it appears as if the Langerian view of mindfulness might also be valuable in helping people cope with organizational change.

Similarities & Differences

Some researchers (Feldman, 2006, footnote) see a “considerable overlap” between the Eastern and Western views of mindfulness (e.g. focused attention to one’s environment, viewing situations from various perspectives). Contrarily, other researchers (Chaskalson, 2015) see these constructs as being more different than similar, as more dimensions are included in the Eastern approach such as metacognition, present-centeredness, kindness, etc. (Chaskalson, 2015). Below is a summary of similarities and differences based on the literature:
Table 6: Eastern (Langer) vs. Western (Kabat-Zinn) Mindfulness Approaches

<table>
<thead>
<tr>
<th>Similarities</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Present-oriented conscious awareness and self-regulation of attention (Hart et al., 2013)</td>
<td>- Different historical and cultural backgrounds</td>
</tr>
<tr>
<td>- Both mention that limited conscious awareness can lead to mindlessness/autopilot (Kabat-Zinn, 1994)</td>
<td>- Eastern mindfulness is achieved through meditation – internally-focused and contemplative and non-striving - allowing thoughts and feelings to come and go</td>
</tr>
<tr>
<td>- Positive effects on well-being</td>
<td>- Western mindfulness - does not include meditation; emphasis is on paying attention to external stimuli</td>
</tr>
<tr>
<td>- Openness to possibilities</td>
<td>- Though both believe mindfulness can facilitate creativity, there is more emphasis on this from a Western perspective</td>
</tr>
<tr>
<td>- Non-Judgmental/Moralistic – e.g. doing the right thing can be achieved through meditation (Hart et al., 2013). Similarly, Langer’s approach deters rigid thinking and stereotypes</td>
<td></td>
</tr>
</tbody>
</table>

Given these similarities, it was surprising to note that Langer was blatantly omitted from the majority of peer-reviewed mindfulness literature, which consistently focuses on the Eastern view. This observation was validated in an article authored by Hart et al., (2013):

Regardless of evident areas of convergence between them (Langer and Kabat-Zinn), the two strands of research have been running in parallel for more than 30 years, scarcely addressing each other’s work, and with almost no attempt to merge them or clarify their relationship (Hart et al., 2013, P. 453)

While it is clear that both Eastern and Western approaches provide considerable benefits and, given the increased popularity and interest in mindfulness, it is quite puzzling why these two pioneers have not fully acknowledged one another in their research nor have attempted to collaborate. This exacerbates the ability to measure one’s level of mindfulness.

Assessing & Measuring Mindfulness:

Psychometric tools (surveys, questionnaires) and studies are primary ways to measure mindfulness (Hyland et al., 2015). However, this is complicated due to a lack of
a common definition of mindfulness and disagreement among researchers regarding the various facets/dimensions of mindfulness. From an Eastern perspective, Bishop and colleagues (2004) endeavored to establish one operational definition of mindfulness which consisted of: a) self-regulation of attention, and, b) a posture of curiosity, openness, and acceptance towards one’s experiences in the present (Bishop et al., 2004). Though this perspective is frequently mentioned in the literature, it is not widely accepted as the sole operational definition. As a result, there are several psychometrically sound, reliable and valid self-reporting Eastern instruments (e.g. the FFMQ as per Aikens et al., 2014) still in use today, as well as, Langer’s Western version (Baer, 2006, 2011). This is depicted in the following table, which provides a high level overview of existing instruments (in the left-hand column) and their respective dimensions (on the horizontal lines). Details regarding each instrument, including their strengths and limitations, are covered in the Appendix:
### Table 7: Summary of Dimensions/Facets Covered in 10 Mindfulness Scales

<table>
<thead>
<tr>
<th>Mindfulness Scales</th>
<th>Eastern Versions</th>
<th>MAAS</th>
<th>FMI (latest version)</th>
<th>KIMS</th>
<th>FFMQ</th>
<th>CAMS-R</th>
<th>SMQ</th>
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**Facets:**
- a) Novelty Seeking (having an open and curious orientation to one’s environment),
- b) Novelty Producing
- c) Engagement

This section covered, Eastern (9) and Western (1) scales that measure various facets (e.g. observe, awareness, acceptance) of the mindfulness construct. Due to a lack of one cohesive operational definition, the scales may be narrow (e.g. MAAS measures two facets) or broader in scope (e.g. FFMQ measures five facets) and their respective dimensions and definitions will vary by instrument. Some statements and scales are reversed-scored, have overall scores and/or sub-scales with separate scoring (PHLMS).

Until attempts are made to bridge Eastern and Western concepts of mindfulness, there
will be continued debate over the most optimal instrument to use, though most are psychometrically sound.

It also appears, based on the literature, that more long-term studies with control groups need to be conducted with larger, broader (i.e. clinical, non-clinical, working professionals, meditators, non-meditators) and more diverse (i.e. gender, race, various cultures) populations beyond clinical settings (e.g. more data-driven organizational research). Then, in my opinion, this will further ensure that measurement instruments contain clear language that supports cultural, organizational and educational differences, along with vernacular that draws distinctions between meditators and non-meditators (e.g. how each respective group may perceive the word “observe”).

**Workplace Applications of Mindfulness**

Current interest in mindfulness research is rapidly increasing in organizational settings (Dane and Brummel, 2014; Hyland et al., 2015; Good et al., 2016). This is not surprising, given that mindfulness, via self-report measures, has been associated with reducing stress, enhancing attention and awareness, managing emotional responses and promoting psychological and physical health (Dane & Brummel, 2014; Hyland et al., 2015) – all outcomes that might also contribute to workplace effectiveness. Though most of this research has been conducted in non-workplace settings, as organizational research is scarce (Hulsheger et al., 2012) with limited empirical evidence (Dane and Brummel, 2014), preliminary results suggest that there are indeed potential benefits for the workplace (Hyland et al., 2015; Good et al., 2016; Janssen et al., 2018; Kersemaekers et al., 2018). Despite this gap, organizations of all kinds including Google, Aetna,
American Express, Ford Motor Company, Toyota, Apple, eBay, Facebook, Twitter, Yahoo, GE, IBM, Nike, 3M, Green Mountain Coffee, Hearst Publications, Hoffman LaRoche, General Mills, Deutsche Bank, Bank of America, Goldman Sachs, Black Rock, Mayo Clinic, Parliament, and the U.S. Army and Marine Corps have recently begun exploring mindfulness programs to improve organizational effectiveness (Reb and Choi, 2014; Aviles and Dent, 2015; Reb and Atkins, 2015; Wells, 2015; Hyland et al., 2015; Good et al., 2016). Also noted in the literature are early adopters, such as Medtronic, who had established a meditation room in 1974 with the intent to foster creativity.

Most corporate mindfulness programs have been adapted based on Kabat-Zinn’s Mindfulness-Based Stress Reduction (MBSR) program and have been re-designed to be more conducive to workplace settings (Hyland et al., 2015). Based on the literature, there appears to be some common approaches when developing organizational mindfulness programs. One popular approach is to apply traditional, concentrative meditation practices (i.e. breathing and sitting still in a silent state of awareness) in shorter durations (Aikens et al., 2014) with reduced frequency when compared to an eight- to ten-week MBSR program. Training venues typically include onsite or online programs or by holding an offsite retreat for executive-level members (Hyland et al., 2015). Another more corporate-oriented approach, focuses on integrating mindfulness practices with one’s daily work which may include mindful emails, mindful meetings, communications, breaks and mindful moments (Chaskalson, 2011, Reb and Choi, 2014;).
One study (Reb and Choi, 2014) combined these methods with a group of 30 employees within a European risk management services group to combat stress. This eight-week program was presented as “mental training” and provided scientific evidence to support mindfulness. It consisted of breathing and workplace application exercises (e.g. mindful emailing - taking three breaths after typing an email, reviewing it, imagining the recipient’s response to it, and altering it, if needed (Chaskalson, 2011). A survey conducted one year later revealed that 88% of participants had an increased ability to focus, while 82% were less distracted and 59% indicated improvements in handling stress and pressure.

The literature also indicates that there are questions and challenges as to how workplace mindfulness has strayed from its original Buddhist roots based on how it’s applied in the workplace. For instance, some critics have argued that mindfulness has become a fad and has been repurposed as a “way of doing” to achieve a result (e.g. efficiencies, focus, productivity, etc.) as opposed to a way of “being” (Wells, 2015; Purser and Milillo, 2015; Lieberman, 2015). Some questions that remain unanswered are, how truly effective are these modified programs? Are the same results gained as in MBSR? Or is key content lost and the program unsustainable? Are employees attending these programs because they want to? Or do they feel they must comply as a result of peer or organizational pressure?

Also, what is the optimal duration to meditate in which one can achieve maximum results? One study conducted by Hafenbrack, Kinias, and Barsade (2014), as cited in Hyland and colleagues (2015), demonstrated that a single 15-minute
mindfulness intervention positively impacted problem-solving skills. However, Jha and colleagues (as cited by Hyland et al., 2015) posit that longer durations may be more effective and provide sustainable results. It is obvious that more research is required to resolve these dilemmas.

The literature reveals numerous areas in which mindfulness appears to influence a variety of workplace outcomes – such as alignment with company goals, sense of purpose, improved productivity, communications, social relationships, emotional intelligence, resilience, teamwork, task performance, working memory, ethical decision making, enhanced creativity, innovation, problem solving, cognitive flexibility, compassion for and helping others, loyalty, commitment, workplace engagement and job satisfaction (Langer, 1989; Chaskalson, 2011; Dane and Brummel, 2014; Reb and Choi, 2014; Hyland et al., 2015; Good et al., 2016, Janssen et al., 2018; Kersemaekers et al., 2018). However, I will focus on the overarching themes as identified by Chaskalson (2011) and Good (2016) and, in my opinion, the ones that most closely relate to organizational change. Specifically, these areas are *performance, relationships, and well-being*; these will be intertwined with some of the above-mentioned workplace outcomes.

**Performance**

Though empirical research on the effects of mindfulness on workplace performance is rare (Dane and Brummel, 2014; Reb et al., 2013; Reb and Choi, 2014; Hyland et al., 2015; Good et al., 2016), there is preliminary evidence that links
mindfulness with improved job performance, ethical behavior, and safety (Hyland et al., 2015; Good et al., 2016).

In one workplace study using the FFMQ instrument (Baer et al., 2006), Reb and colleagues (2013), found that mindfulness was positively associated with job performance and negatively associated with absent-mindedness. Furthermore, not only were mindful employees able to perform better on their designated tasks, but also, were inclined to help other colleagues with their work. The researchers also found that mindful employees were less likely to engage in deviant or unethical behaviors (e.g. stealing, working fewer hours) which suggested they behaved in closer alignment with their values.

Reb and colleagues (2013) also looked at the work environment and the role it might play towards enabling or hindering mindfulness. They found that when employees were constrained with routine tasks and less autonomous, they were more absent-minded and less mindful. Likewise, Glomb et al., (2012) found that, although mindfulness practices might increase one’s effectiveness by decreasing behaviors related to working on “autopilot”, mindful behavior might be counterproductive when doing routine, mundane work tasks as in a production environment. Dane and Brummel (2014) also found (using the Brown and Ryan’s (2003) MAAS questionnaire though only the workplace-relevant statements were used), that in dynamic environments, mindfulness was positively related to job performance and negatively associated with turnover.

How exactly does mindfulness improve performance? Dane and Brummel (2014), posit that as mindfulness widens one’s attentional breadth (seeing a broader
range of stimuli as opposed to being focused on one specific target), this can be advantageous when a series of interdependent decisions must be made in real time. Likewise, stabilizing one’s attention suggests that mindfulness may reduce performance variability and improve safety by decreasing the number of errors due to attention lapses or distractions in routine work (Good et al., 2016).

A study, conducted by Jha and associates (2010), examined the effects of mindfulness training on working memory capacity (which is used to manage cognitive and attention-related demands and regulate emotions), among U.S. Marine reservists undergoing intensive pre-deployment training. What the outcomes suggested was that increased mindfulness training protected working memory capacity through greater attentional stability (focus) and positive affect when in highly stressful environments. In another study conducted by Jha, Krompinger and Baime (2007) with a small group (34) of University of Pennsylvania medical and nursing students, meditation training was associated with improved regulation of attention (able to be selectively attentive by directing and limiting attention) and greater alertness and vigilance. Interestingly, though most mindfulness outcomes are self-reported, in this study an online software tool was used to measure response times, etc.

As it is natural for the mind to wander (Killingsworth and Gilbert, 2010), the ability to concentrate and stay focused on the present moment rather than on the past or future, is an important attribute to cultivate. A 2015 study by Kuo & Yeh (Good et al.,
2016), showed that five (5) minutes of mindfulness practice can reduce the effects of interruptions and distractions by enabling one to more quickly refocus on simple tasks.

Mindfulness may also facilitate the pursuit of goals, though mindful individuals may react less intensively to goal feedback (Good et al., 2016). For instance, if positive feedback is provided, it is unclear what effect this may have on goals, though, as previously mentioned, it has been speculated in the literature that the level of enthusiasm and positivity might be diminished, as one’s emotions may be more regulated. When the feedback is negative, mindful individuals are less apt to self-criticize and feel guilty if goals are not attained (Good et al., 2016). One 2006 study, conducted by Seligman with a large insurance company, found that better sales performance was achieved by employees who practiced mindfulness than those who did not (Hyland et al., 2015). Good et al., (2016) recommend that the impact of mindfulness on sales force goal attainment and feedback should be further evaluated through longitudinal studies.

One in-depth example of how an organization has measured and improved productivity through mindfulness interventions is Aetna. After personally experiencing the benefits of mindfulness to ease pain after a skiing accident, Aetna’s CEO, Mark T. Bertolini began offering free meditation and yoga classes to Aetna employees to improve overall well-being. More than one-quarter (13,000 employees) of the 50,000 employee workforce participated in at least one class as of March, 2015. On average, participants reported a 28 percent reduction in stress, a 20 percent improvement in sleep quality and a 19 percent reduction in pain. Productivity-wise, employees gained an average of 62 minutes per week saving the Company $3,000 per employee or $39,000,000 per year
(based on the 13,000 who participated). This was measured through a questionnaire that assessed an employee’s ability to stay focused and on task.

Though one might argue that it is highly unrealistic for these cost savings to be realized by attending just one class (though demand subsequently rose and classes were overbooked), Bertolini partnered with his Chief Medical Officer to conduct a three-month research study of 239 employees that was published in The Journal of Occupational Health Psychology in 2012. One third practiced yoga, the other third practiced mindfulness (e.g. meditation) while the other third was a control group. At the end of the three months, it was self-reported in the yoga and mindfulness groups that there was a significant reduction in stress and sleep difficulties which was supported by tracking improved heart rate variability and cortisol levels (both are used to measure anxiety). In addition, medical claims per employee were reduced by 3 percent ($3 million) for the yoga and meditation groups, which were sustained, though other factors, such as a weight loss programs, etc. could also be attributed to these savings.

Relationships

Interpersonal skills are essential for workplace effectiveness (Good et al., 2016). Research indicates that mindfulness and emotional intelligence (EI) are positively correlated (Brown and Ryan, 2003) as meditation practices appear to increase EI, specifically in terms of greater self-awareness, self-management, social awareness and
relationship management, through heightened sensitivity, communication skills and awareness of others (Chaskalson, 2011; Hyland et al., 2015).

In addition, mindfulness also relates to observing thoughts and feelings without judgment and reaction (Reb et al., 2012). Studies by Beckman and colleagues (2012) and Beach and colleagues (2013) indicated that healthcare clinicians who received mindfulness training improved their communication skills through more active listening, greater awareness and being less judgmental of others – all of which improved the overall quality of their relationships with colleagues and clients (Good et al., 2016).

Though most of the research relating to interpersonal skills has been conducted in healthcare settings (Good et al., 2016), it is suggested in the literature, that mindfulness can foster greater teamwork, reduce team conflict and social undermining and promote effective conflict management in a number of ways: sustained attention and awareness to present events, a positive emotional tone, non-judgmental processing of within-team experiences and self-regulation of less reactive behaviors and emotions, such as hostility and anger (Good et al., 2016; Yu and Zellmer-Bruhn, 2017). This may lead to less impulsive reactions and more sound decision making with greater cognitive flexibility and reduced bias (Hyland et al., 2015). Mindfulness has been shown to improve relationships through greater compassion for self and others (Hyland, et al., 2015; Good et al., 2016), which has been linked with increased trust, support and cooperation (Reb and Choi, 2014).

Enhanced relationships, through mindful practices, may also benefit an organizational climate and encourage more trust and openness to sharing ideas.
Mindfulness promotes a non-judgmental stance, enabling one to evaluate data in a neutral, detached (witnessing) manner without immediately reacting or interpreting a situation as either positive or negative. This approach may promote a safer environment for employees to be open to constructive feedback and learning (Hyland et al., 2015), voice their opinions, and be more resilient to setbacks (Good et al., 2016). For example, if a boss is angry or abusive, the employee may observe his/her feelings without an immediate evaluation, judgment or interpretation of fear, self-blame or anger, based on past experiences or memories (Good et al., 2016).

However, it still needs to be determined if there are negative effects related to reduced emotional reactivity. Good et al., (2016) suggests that this could promote acceptance of abusive behavior by one’s supervisor and discourage more productive approaches such as changing jobs or filing a complaint. Critics also question whether organizations use mindfulness to calm, pacify, and subdue employee unrest, by helping them cope with the stress, rather than challenge the status quo, such as questioning an organization’s social and ethical-responsibility by addressing the systemic issues inherent in unhealthy or toxic organizational environments (Reb and Choi, 2014; Hyland et al., 2015; Purser and Milillo, 2015).

Well-Being

Well-being, both physical and psychological, is a major area of interest among mindfulness researchers as it has been associated with health and wellness. Stress is a serious public health issue (Hyland et al., 2015). The American Psychological
Association reported in 2014 that approximately 70% of Americans experienced symptoms of stress (Hyland et al., 2015). It was also estimated in a 1990 study, that stress accounts for up to $150 billion per year in healthcare and insurance costs, absenteeism and decreased productivity (Hyland et al., 2015). In 2004, the World Health Organization (WHO) estimated these costs doubled for American businesses to $300 billion. Thus, workplace stress results in reduced productivity, higher turnover, more errors and safety risks (accidents). Workplace stress is defined as:

response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities…where there is little opportunity to exercise any choice or control (over their work pace, methods for doing the work, hours and the work environment) and little support from others…which challenge their ability to cope. (Leka et al., 2004, WHO, pp. 3, 5, 6)

Stress is classified by the WHO into two categories - **Work Content** (e.g. monotonous or too much/little work, time constraints, lack of participation in decisions and inflexible schedules) and **Work Context** (e.g. job insecurity, status and pay, unclear roles, poor communications, relationships and leadership, bullying, work/life demands). While stress management training was listed (Leka et al., 2004) as a way to cope with stress, mindfulness was omitted.

Mindfulness is strongly connected with emotional regulation and well-being (Jha et al., 2010; Dane & Brummel, 2013; Hulsheger et al., 2013), as well as, with employee engagement (Dane and Brummel, 2013; Malinowski and Lim, 2015) and job satisfaction (Hulsheger et al., 2013), while reducing employee burnout (Hulsheger et al., 2013; Reb and Choi, 2014), anxiety (Reb and Choi, 2014), absenteeism and turnover (Dane and Brummel, 2013; Good et al., 2016). A few studies, such as one conducted by Roeser et
al., (2013), as cited in Good et al., 2016, have shown that mindfulness positively effects self-compassion, hope, optimism and positivity (Malinowski & Lim, 2015 using the FFMQ instrument (Baer, et al., 2006).

A study (Hulsheger et al., 2013), using the MAAS instrument, found that mindful individuals were able to observe stressful events in a detached and objective way, leading to greater job satisfaction; less mindful people may be overly-influenced by negative thoughts which may result in a distorted assessment of and negative reaction to events, resulting in reduced job satisfaction and greater potential for burnout (Hulsheger et al., 2013). In another study at Dow Chemical, using the FFMQ (Baer et al., 2006), an online workplace mindfulness program was effective in enhancing well-being by decreasing stress and improving resiliency, vigor (physical strength, emotional and cognitive energy) and engagement (Aikens et al., 2014).

Resilience is another form of workplace well-being (Good et al., 2016). It is the ability to bounce back after setbacks (i.e. adversity, failure) (Wells, 2015). It can be characterized by a readiness to face fears, a positive outlook and attending to unpleasant stimuli during stressful experiences (Stanley et al., 2011). Research suggests that resilience can be cultivated through mindfulness practices (Chaskalson, 2011; Stanley et al., 2011), enabling greater flexible cognition and a more adaptive evaluation of stressful events (such as organizational change). In turn, this fosters a faster recovery from workplace challenges, providing employees with perceived control through the use
of positive coping responses, promoting greater confidence and resilience (Stanley et al., 2011; Hulsheger et al., 2013; Good et al., 2016).

One study, involving the U.S. Marines (Stanley, et al., 2011), examined the impact of mindfulness practices on resilience. Using interviews and measurements, such as the FFMQ (Baer, et al., 2006), it was found that the more time participants practiced mindfulness, this capacity increased while stress levels were reduced. Team communications, cohesion and effectiveness improved. Individuals increased self-awareness, attention, concentration, coping behaviors, emotional regulation and relationships. Leaders, who reported greater self-awareness of their emotions, were more open to staff feedback (Stanley et al., 2011).

Walach and colleagues (2007) conducted research in a high demand customer service center and applied MBSR training over an 8-week period. While employees attained more awareness of work-related issues, they became more critical of their environment, though increased positive coping skills were employed. Other studies have indicated that people with more mindfulness, were less susceptible to stressful situations by using positive coping skills to respond to stress in a more adaptive way, with greater composure and less rumination (Grossman et al., 2004; Dane and Brummel, 2014; Gardhouse and Segal, 2015).

This section covered the limited body of research available on organizational mindfulness and its’ positive impact on attention, awareness and emotional regulation, improved performance, relationships and well-being. Workplace mindfulness is primarily practiced through “modified” meditation. Though a few studies indicate a
positive correlation with job satisfaction, turnover, stress, etc., larger sample sizes and longitudinal studies should be executed for further confirmation. Contrary evidence should also be reviewed to further examine if mindfulness could have a detrimental effect on workplace performance, etc.

Future research should focus on the purpose and content of workplace programs. Can Aetna’s success be sustained and replicated in other organizations? And, what is the intent of mindfulness programs? Is it to help employees? Or, is it to maintain power and influence and avoid addressing issues that cause stressful and toxic problems in the first place?

Mindfulness and Leadership

Good and colleagues (2016) claim that mindfulness is a popular element of leadership training in organizations with participants reporting outcomes such as improved listening, strategic thinking and innovation. Leaders, such as Apple founder, Steve Jobs regularly practiced meditation to stay calm and focused (George, 2014). Research also suggests that mindful leaders may be more attuned to employees’ non-verbal communication and emotional states, helping them better understand employee needs (Good, et al., 2016). This is important as Hyland et al., (2015) notes that, based on a 1988 study (McCall, Lombardo and Morrison), a lack of self-control, awareness and openness to feedback can derail leadership success. Though the positive effects of mindfulness have been studied in non-organizational settings, the impact on leaders and employees has yet to be examined in organizations (Good et al., 2016); though one
rare workplace study, conducted by Reb et al., (2012), using Brown and Ryan’s (2003) MAAS instrument, found that mindfulness in leaders was positively associated with employee well-being, performance and job satisfaction with reduced levels of burnout and improved relationships among staff (Reb and Choi, 2014).

Hunter and Chaskalson (2013) view mindfulness as a practical way to develop adaptive leaders and enhance well-being when facing challenging, stressful and changing environments. Specifically, challenges arise when a problem is new and unfamiliar, in which previous solutions or frameworks cannot be used to understand or solve a unique challenge. If leaders draw on past habits and actions without exploring new options and categories (similar to Langer), they and their teams will experience stress. Mindful leaders will recognize these automatic patterns and change course if needed (Hunter and Chaskalson, 2013; By et al., 2015).

Hunter and Chaskalson suggest that the capacity to be mindful is a “critical skill (for leaders) to be present and aware of themselves, others, and the world around them and recognize in real time their own perceptions (and their potential biases), their emotional reactions, and the actions they need to take to address current realities more effectively” (2013, p. 197). While they admit that there is a limited amount of research, they draw upon other fields (e.g. clinical and scientific) to advance their views. They indicate that mindfulness training creates changes in the brain that enable individuals to become more present, less reactive and more purposeful in thoughts and actions (Hunter and Chaskalson, 2013). This results in increased attention, awareness and working memory, along with a greater capacity for empathy, emotional intelligence (EI), self-
regulation, innovation, decision making and stress management (Hunter and Chaskalson, 2013). Chaskalson has also observed that mindfulness enables leaders to have greater control of their responses and be more able to manage change and uncertainty (Chaskalson, 2015).

Similarly, Caryn Wells (2015) proposes that mindfulness may reduce stress among educational-sector leaders and cultivate social and emotional intelligence. Based on research by Goleman, Boyatsis and McKee (2002), EI accounted for 85 to 90 percent of the difference in the success between superior leaders and those who were rated as average (Wells, 2015). Technical skills and intelligence (IQ) were less important than social skills as leaders who are mindful create hope and demonstrate attention, empathy and compassion (Wells, 2015). Wells also cites that mindfulness programs designed by physicians, Ronald Epstein and Michael Krasner (2013) for physicians, have demonstrated reductions in stress, increased resilience and improved quality of patient care.

This section covered mindfulness and its’ relationship to leadership development from Eastern and Western perspectives. Though there are few controlled and longitudinal studies in the field of organizational research that support reliable and valid evidence of outcomes, the researchers cited in this section, drew upon other areas, such as clinical studies and neuroimaging, to support their beliefs that mindfulness practices could enhance greater adaptive leadership, EI capabilities and resiliency in the workplace.

Mindfulness and Organizational Change
Aviles and Dent (2015) conducted a systematic review of the literature on mindfulness and organizational change. They speculated that mindfulness, through the benefits of increased cognition (i.e. heightened awareness, knowledge, understanding, perception and insight), could be extremely valuable when addressing the complexities and uncertainties associated with organizational change and perhaps, even improve its’ success rate. What they found was a serious shortage of scholarly (evidence-based research) literature on this topic. This was supported by only three articles on mindfulness and organizational change in 1997 and twenty-seven of the same identified in 2015 (Aviles and Dent, 2015). Most of the research was theoretically-based, drawing from studies in other fields, as opposed to actual organizational investigations, thereby, limiting the ability to conduct a meta-analysis (Aviles and Dent, 2015).

Though most of the literature examines mindfulness from an Eastern stance, Aviles and Dent (2015) focused on the Western viewpoint, highlighting Langer’s and Moldoveanu’s research (2000) from a cognitive perspective, thus, excluding Eastern mindfulness practices, such as meditation. Specifically, Langer and Moldoveanu (2000) indicate that mindless behaviors prevent individuals from effectively moving forward during organizational change (Aviles and Dent, 2015). This typically occurs when habits and past routines of doing things continue to be applied to new environments based on what was learned or successful in the past (Aviles and Dent, 2015; By et al., 2015). For new behaviors to emerge, an “unlearning” must occur. Mindfulness can facilitate this process (By et al., 2015) through conscious, unbiased engagement in the present which enables one to be more perceptive of new information, context, possibilities and multiple
perspectives (Langer, 1989; Aviles and Dent, 2015). When facilitating change, mindfulness can encourage leaders and employees to recognize when organizational processes are no longer appropriate, change them and question current values and behaviors (By et al., 2015). Langer and Moldoveanu (2000) found that, when studying mindfulness in organizations, increases in mindfulness were associated with improved creativity, retention of information and decreases in the number of accidents (Aviles and Dent, 2015). As changes in demographics, technology and other complexities continue to be a challenge, mindfulness can foster diverse and novel strategies towards problem solving and decision making, though Aviles and Dent (2015) note that these socio-cognitive aspects are often overlooked towards possibly supporting positive change outcomes.

Similarly, Higgs and Rowland (2010) found that leaders who were more successful in leading change, demonstrated greater levels of self-awareness and had an ability to work in the present moment. Likewise, leaders who failed at implementing change, focused on their egos and reinforced patterns that kept an organization “stuck”. Rowland and Higgs (2008) and Aviles and Dent (2015) all noted that interventions which enhanced self-awareness could improve a leader’s capacity to lead positive change. Aviles and Dent (2015) took this one step further by concluding that “mindfulness is strategically and organizationally more reliable when operationalized across all organizational levels” – not just amongst leaders (p. 48).

Aviles and Dent (2015) and Guido Becke (2014), view mindfulness as a basic principle of change, both cite Weick and Sutcliffe’s research (2007) within High Reliability Organizations (HRO), which emphasizes adaptability and catching and
preventing errors before they become catastrophes, particularly, in volatile and unpredictable environments (e.g. nuclear power plants, space exploration). HROs are grounded in mindfulness as there is an acute awareness and attention to detail and quality, reliability and productivity improvements (Becke, 2014). This “mindful infrastructure” (Becke, 2014) is based on five (5) key principles, with the first three (3) related to anticipating unexpected events and the latter two (2) focused on the ability to contain damages from unexpected events (Gartner, 2013; Becke, 2014; Aviles and Dent, 2015):

- Preoccupation with Failure
- Reluctance to Simplify Interpretations
- Sensitivity to Operations
- Commitment to Resilience
- Deference to Expertise

(See Appendix, Exhibit C for further clarification of these principles)

Aviles and Dent (2015) and Becke (2014), suggest that these principles can also be applied to non-HROs to increase their environmental awareness of the signals that could “aid, reduce or mitigate threats and challenges. These (principles) also provide a blueprint for organizations seeking to better prepare themselves, manage unexpected events and increase their resiliency when faced with uncertainty” (Aviles and Dent, 2015, p. 50).

While By and colleagues (2015) also agree that mindfulness can contribute to positive change outcomes, specifically by helping employees realize and accept the need to alter their values and behaviors (seeing things differently) and by separating the future from the past, in contrast with Aviles and Dent (2015) who support a Western perspective
of mindfulness, By et al., (2015) advocate the use of Eastern practices, such as meditation, to “unlearn” past practices and behaviors.

Researchers, such as Maria Gondo and colleagues (2013) and Christian Gartner (2013), have synthesized insights from the existing literature related to mindfulness and readiness for change. Gondo et al., (2013), contends that, though further exploration is needed, people can develop a “readiness for change” when they are mindful and recognize the need to alter entrenched behaviors and routines that are no longer suitable. They caution that traditional approaches to change readiness may actually hinder mindfulness during workplace change, as noted below.

According to Gondo and colleagues (2013), a key aspect of developing a readiness for change is to uncover the actual behaviors and actions that are no longer useful, then alter or modify them accordingly through trial-and-error learning, negotiation, etc. This is difficult to do when tacit assumptions are not identified and are perpetuated through undocumented organizational routines (e.g. practices which are supported by multiple people via relationships and/or communications as opposed to documented, standard operating procedures). These routines, stored in one’s procedural memory and difficult to access, can create an incongruence between one’s conscious belief that change is needed and the unconscious behaviors that reinforce these routines and hinder change (Gondo et al., 2013). To overcome this, individuals must be mindful. This means having an enhanced state of attentiveness and awareness (in the present moment) of any given situation as it unfolds. This enables one to better recognize the need to alter these tacit assumptions and routines (Gondo et al., 2013). Otherwise, though one may believe in the change, she/he may not be effective in implementing it.
These habits will not be identified through “top-down leadership prescriptions for change”, but rather, when people are mindfully implementing the change (Gondo et al., 2013, p. 37). This appears similar to Langer’s research, though she is not referenced in Gondo’s article.

Gondo and colleagues (2013) also highlight how three (3) existing actions/beliefs that are espoused to positively foster change, but may also reduce levels of mindfulness by focusing attention on conceptual categories versus attending to what is occurring in the present. The first belief is that systematic change planning will positively impact change; however clearly defined plans can actually hinder mindfulness by being too prescriptive and impede the surfacing of assumptions (Gondo et al., 2013). The second common change action is to create goals that promote desired behaviors and performance; however, Gondo and colleagues (2013) caution that this belief could discourage people from engaging in activities not tied to goals, but still could be valuable (e.g. continuous improvement, collaboration, customization, experimentation, improvisation, reflection, trial-and-error learning). Instead, attention is focused on goals; obstacles are overcome through workarounds rather than by investigating their root causes or integrating them with other key activities. Lastly, rewarding success helps obtain buy-in and provides alignment between individual and organizational goals. This facilitates readiness for change (Gondo et al., 2013). However, significant research has demonstrated that incentive pay initiatives are only effective in routine, simple, non-complex work environments (Gondo et al., 2013). Incentivizing a particular goal can create blind spots towards the broader purpose; it may prevent the mindful attention and engagement of addressing issues and fine-tuning and/or uncovering those activities that
hinder change - especially when issues are outside the scope in which one is rewarded (Gondo et al., 2013). Rather, Gondo et al., (2013) suggest that incentives focus on mastering new skills or techniques that would advance the change.

Drawing from HROs, Gondo et al., (2013) identify ways that organizations can develop a readiness for change through mindful behaviors and practices. Research indicates “that mindfulness is triggered by some element of surprise, or a perception of a difference” (Gondo et al., 2013, p. 45). Interruptions in daily routines and patterns could surface assumptions and facilitate unlearning. Also, when change is framed as “dramatic” versus “business as usual”, people are engaged in more mindful activities, such as trial-and-error learning (Gondo et al., 2013). Another approach is to routinize mindfulness and create ambiguity by “underspecifying decision structures” (Gondo et al, 2013). Gondo et al., (2013) also suggest that managers act as “pollinators” by sharing how other departments are engaging in change. In addition, the use of simple rules and guidelines that are not finite, can encourage individuals to experiment with novel responses to ambiguous situations (Gondo et al., 2013). Finally, the researchers recommend introducing enough structure that supports the change without providing too much structure that could stifle mindfulness. However, Gondo and colleagues (2013) caution that future research is required, as uncertainty and ambiguity created by these approaches might derail participant support through reduced control and self-efficacy. As such, Gondo et al., (2013) recommend that one acquires a better understanding of the interrelationship between mindfulness and change readiness, specifically the role that mindfulness plays in altering routine behaviors and facilitating change, and how
readiness can help shape beliefs, essential to clarifying reasons why the change success rate is so low.

Christian Gartner (2013) also contends that mindfulness is crucial for enhancing readiness for change at both individual and organizational/collective levels. This is because mindfulness encourages flexibility (e.g. seeing opportunities versus threats) with improved perceived control and ability to manage the change (e.g. coping with contradictions and negative thoughts) (Gartner, 2013). At a collective level, “it is argued that mindfulness is the result of processes of organizing that establish readiness-increasing organizational cultures which are characterized by learning, open communication (including active listening and exchange of information), supportive working relationships (including commitment to resilience) and participative decision-making” (Gartner, 2013, p. 53). Citing Holt and colleagues (2007), Gartner describes readiness for change as “the extent in which individuals are cognitively and emotionally inclined to accept, embrace and adopt a particular plan to purposefully alter the status quo” (p. 54). Despite differences in the Eastern and Western constructs, Gartner (2013) references both perspectives when describing how mindfulness can enhance change readiness. Drawing from these two strands, Gartner opines that mindful employees’ a) perceptions of change are open and flexible and viewed from multiple angles, b) are more aware of pessimistic thinking patterns and are likely to alter them, c) perceive their ability to manage change successfully and function well on the job, d) can regulate behaviors with less frustration, resistance and defensive or aggressive responses – which lead to more effective goal attainment, e) have greater perceived control and acceptance of change, and, f) have higher levels of positive emotions (Gartner, 2013).
Gartner (2013) also provides suggestions on how mindfulness can be enhanced to increase change readiness. At the individual level, he recommends meditation and MBSR training, along with mentoring, critical incident discussions, exercises in outcome-focused versus process-focused thinking patterns, categorization processes, understanding learning styles and employing a variety of Langerian interventions focused on goal-oriented cognitive and behavioral tasks. For example, to encourage different perspectives and contexts, one might say, “this new organizational setup could enhance effectiveness” (Gartner, 2013, p. 64) as opposed to “This is the new effective organizational setup” (Gartner, 2013, p. 64). At a collective level, Gartner (2013) recommends utilizing Weick and Sutcliffe’s (2007) five HRO principles (as previously mentioned). Companies can also implement routines that encourage individuals to be more aware of potential failures, anomalies, etc. so these are brought to the forefront, train in recovery skills, hire skilled temporary workers (to provide diverse perspectives), and ensure positive employee relations (Gartner, 2013).

As resistance to change is recognized as one of the biggest obstacles and threats towards organizational change, Avey and colleagues (2008) examined the impact that mindfulness and positive employees can have on change. In a study of 132 employees across diverse organizations and roles, Avey et al., (2008) found that employees’ psychological beliefs, expectancies and appraisals (i.e. hope, efficacy, optimism, resilience – what the authors term as “psychological capital”) are a source of positive emotions, attitudes and behaviors. Employees who are higher in psychological capital are more likely to exhibit these (i.e. more engagement and citizenship while less deviant and cynical) during change. Furthermore, mindfulness (which is defined as a “heightened
attention and awareness of their thoughts and feelings” (Avey et al., 2008, pp. 57 and 65), was found to interact with psychological capital to predict positive emotions. For example, when psychological capital is low, a high level of mindfulness appeared to compensate for this, with employees experiencing more positive emotions.

Lastly, Hyland and colleagues (2015) indicate that mindfulness can assist organizations in reducing resistance to organizational change (perhaps leading to better success rates) and helping employees cope with it. This is because higher levels of acceptance are associated with greater perceptions of control and can also alleviate the stress associated with a loss of control. Also, mindfulness promotes not only emotional regulation and objectivity with less reactivity and defensiveness during threatening or fearful situations, but also, encourages greater flexibility and openness to new ways of thinking and being (Hyland et al, 2015).

This chapter began with an overview of organizational change. While the pace of change may not increasing, as supported by economic indicators, an overload of information, based on technological advances, have placed greater demands on people, compromising their ability to focus and cope with this “new normal”. As uncertainty (lack of control) and stress are closely associated with organizational change, this chapter covered a full review of the possible causes of stress and coping strategies that organizational members can employ when dealing with it. Likewise, organizations can also apply inclusive and engaging strategies that mitigate worker stress, fears and uncertainty during change. However, there is still a tremendous opportunity for improving the execution of change in a manner this is mutually beneficial for both organizations and their members.
This discussion was then followed by an examination of Eastern and Western mindfulness concepts as an alternative approach towards helping people and their organizations cope with change. Unfortunately, the inability to bring these two similar yet different strands of research together, has resulted in a lack of a common operational definition and promulgated the development of multiple measurement instruments, which were described in this Chapter. A discussion then ensued regarding the number of corporations, such as Google, Aetna, American Express, Ford Motor Company, Toyota, Apple, eBay, Facebook, Twitter, Yahoo, GE, IBM, Nike, 3M, Green Mountain Coffee, Hearst Publications, Hoffman LaRoche, General Mills, Deutsche Bank, Bank of America, Goldman Sachs, Black Rock, the US Army and Marine Corps, that have re-designed mindfulness programs so they are more palatable for the workplace; though there is an ongoing debate over whether these modifications (shorter meditations when compared to MBSR, mindful emails, etc.) compromise program effectiveness. Finally, workplace applications of mindfulness were covered, though the research is limited. This was followed by a review of mindfulness and organizational change, in which studies are even more limited and theoretical in nature.

To summarize, based on the literature review covered in this Chapter, Eastern and Western mindfulness practices may benefit individuals and organizations during workplace change. However, it is quite evident that, though there is a significant amount of research on organizational change and some recent studies related to potential applications of mindfulness in the workplace, there is a scant amount of peer-reviewed literature and evidence regarding mindfulness and its relationship to organizational change. This is a significant gap, considering that most of this research is based on a
systematic review or synthesis of existing literature, rather than through additional studies. More rigorous research including quantitative (surveys), qualitative (interviews, observational) and longitudinal studies need to be urgently conducted to further investigate and validate this relationship. I will address this gap through my own qualitative and quantitative research, which will be covered in the following chapters.
CHAPTER 3

METHODOLOGY

Introduction

This Chapter will review the research methodology and data collection process that was employed to better understand how mindfulness practices can be applied to help individuals cope with organizational change, thereby, increasing organizational effectiveness. I will begin with a review of my research question, goals and mixed-methods approach, used as a critical part of this study. This will be followed by a discussion of the development and sequencing of the interviewing tool and questionnaire, along with details regarding sample sizes and groups. Finally, data analysis methods and limitations of this study will be examined and precede concluding points.

Research Question and Study Goals

As mentioned, my guiding research question entails learning how mindfulness practices (i.e. tools and behaviors) can be applied to help individuals cope with organizational change. As most studies about mindfulness practices have been researched in clinical and other non-corporate settings, I would like to identify ways in which mindfulness can benefit individuals, managers who lead and/or are impacted by organizational change, as well as, organizations. Based on the aforementioned value of mindfulness, my goals are to investigate what specific practices might assist companies and their members during organizational change, understand how mindfulness is measured and its’ potential impact. I also endeavor to explore whether applying
meditation and other mindfulness practices in an organizational setting are realistic and practical.

**Methodology (Mixed-Methods Approach)**

To answer these questions, I chose a mixed-methods methodology, using both qualitative and quantitative instruments. Basically, mixed methods research, is “an approach to knowledge that attempts to consider multiple viewpoints, perspectives, positions and standpoints… (it) is an intellectual and practical synthesis based on qualitative and quantitative research” (Johnson et al., 2007, pp. 113 & 129). Johnson et al., (2007) assert that this approach provides the most complete, defensible and useful research results. Through mixed-methods, one can obtain more robust data and triangulate the results from more than one source to identify areas of convergence, which will further validate the results (Johnson et al., 2007). This was especially important for me, given the limited amount of peer-reviewed and quantifiable research in the literature regarding both workplace mindfulness (in general), as well as, mindful (ness) organizational change since most of the research appeared to be more theoretical in nature. Another reason for using a mixed-methods approach was because I had access to a qualitative interview instrument, as a result of participating on Deborah Rowland’s research team for her book, *Still Moving: How to Lead Mindful Change* (2017). It was also relatively easy to design a quantitative survey questionnaire, based on the number of existing quantitative measurements – drawing from both Eastern and Western concepts and utilizing questions that were most pertinent to the workplace and organizational change. Thus, the combination of qualitative and quantitative methods enabled me to
obtain a holistic perspective from multiple frames to better understand whether meditation and mindfulness could be applied during organizational change.

**Sequencing of Methods**

When I initially began this journey, I knew much more about organizational change than I did about mindfulness. Prior to initiating my research, it was quite fortuitous to be introduced by my advisor to Deborah Rowland, a pioneer in leadership thinking, practice and mindful change leadership and, who is also co-author, with Malcolm Higgs, of *Sustaining Change: Leadership That Works* (Wiley 2008). Deborah, based in the UK, was initiating research for her second book, *Still Moving: How to Lead Mindful Change* (2017), about mindful change leadership and how leaders lead large scale, complex change in mindful ways. Based on our mutual passion for and interest in this topic, Deborah asked me, early on in this Capstone, to be a part of her research team. This involved conducting qualitative Behavioral Event Interviews (BEI) with c-suite and other leaders, who have lead organizational change. As many of these leaders were globally-based, the majority of these interviews were conducted over the phone, though some were completed in person, when the participants were based locally. Given this unique and important access to change leaders, the qualitative portion of this study was initiated prior to developing my quantitative research instrument and subsequently launching an online survey.

**Sample Groups**

As mentioned, a mixed-methods approach was employed in response to a lack of research specifically related to mindfulness and organizational change. Behavioral-based interviews were conducted with fifteen (15) change leaders, primarily sourced through
Deborah Rowland’s network of contacts within both for-profit and not-for-profit organizations. Thus, this was a purposive sampling technique that was non-random and grounded in qualitative research (Etikan et al., 2015). Purposive sampling is useful when the researcher “decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience” (Etikan et al., 2015, p. 2). In this case, many of Rowland’s contacts lead large organizational change efforts, some global in scope, and were available and willing to participate in this study.

A survey questionnaire was also developed by drawing on established mindfulness constructs and statements which, I believed, would be the most applicable within the context of workplace change. The primary target population for this survey was a diverse group of approximately 250 students enrolled in the Masters of Science Organizational Dynamics Program at the University of Pennsylvania, of which the majority of these students were working professionals. This population was representative of a convenience (nonprobability) sampling (Etikan et al., 2015), as I wanted to obtain as many working adults in my sample group as possible in the least amount of time, and at no cost. Resources were also available at this institution to help support the development and execution of this survey. These approaches will culminate in identifying core mindfulness practices, tools and insights that may be useful during organizational change.

**Interview Protocol**

Purser and Milillo (2015) assert that Jon Kabat-Zinn admitted that self-report instruments cannot accurately measure mindfulness. They cite that, another option might
be the use of in-depth interviews to outline detailed descriptions and experiences of mindfulness for mapping and interpretation that focuses on outcomes and measures physical or psychological changes that occur as a result. This supports the use of an alternative research method, in addition to the mindful change survey instrument.

The purpose of these interviews was to learn about change leaders’ specific thoughts, feelings, actions and behaviors when leading organizational change. These internal and external responses were reviewed to determine linkages with identifiable facets of the mindfulness construct and, thus, might be beneficial practices when leading successful organizational change.

The confidential Interview Protocol Form and Data Collection Sheet, located in the Appendix (Exhibit F, were developed by Deborah Rowland prior to our introduction and used in all fifteen (15) of my Behavioral Event Interviews (BEIs). Upon review with and comments from my Advisor, I subsequently contacted Deborah and requested her permission to change a few of the open-ended interview questions to avoid double-barreled ones (Fowler, Jr., and Cosenza, 2008), clarify a question and add one more at the end of each interview, as well as, edit her preliminary communication to interview participants, to avoid providing too information that might bias participant responses. Specifically, I suggested that we provide examples to the interviewee of mindful practices that were within the scope of the construct (e.g. meditate, yoga, etc. vs. thinking, jogging) and added a statement that asked for three adjectives that come to mind when thinking about mindfulness. Deborah agreed with these modifications which are reflected in the Exhibits.
The Interview Protocol Form (Exhibit F) was less structured than the semi-structured format that I was accustomed to for hiring and organizational diagnostic purposes. Participants were asked to describe, in general, their thoughts, feelings and other behaviors linked to mindful organizational change, focusing on a change event that occurred within the past two (2) years. To prompt memory recall (Miller, et al., 1987), as studies indicate that 20% of critical details of a recognized event are forgotten after the first year with 50% irretrievable after 5 years (Hassan et al., 2005), participants received advance notice. This was done through an “Invitation to Participate” and a “Reminder letter for the Upcoming Interview” (Exhibit G) which described the topic, what to expect and prepare for (i.e. interested in hearing 1-2 key change stories). This provided the participant with time to recall and reflect on the details of their “change story”.

My coding approach for these interviews was based on actions and comments described by the participant that related to the various facets of mindfulness (awareness, non-judging, etc.), drawn from both Eastern and Western perspectives. Though, as indicated, there are potential issues of memory recall based on a two-year timeframe, I was mindful not to “lead the witness”. This is also why I had requested that the open-ended mindfulness questions be added at the end of the interview so as not to influence participant responses during the interview nor taint Deborah’s protocol and research in any way. It was my hope that a key output of this qualitative research would be to identify possible tools or best practices that leaders and individuals can apply during workplace change.

Telephone and in-person Interviews took approximately 1 to 1.5 hours, depending on the length of the participants’ change stories. The interviews were taped via phone
and then uploaded onto a confidential site in which they were transcribed. Consent was obtained by all interviewees and participation was voluntary. The Interview protocol included a script requesting the participants’ permission to tape the interview and described how the data would be used. It was also conveyed that individual information and responses would be kept confidential and limited to the research team. All data was reviewed and scrubbed (e.g. eliminating details about the companies they worked for, etc.) to protect anonymity before being reported in this research.

Survey Development

As previously mentioned in Chapter 2, there are multiple Eastern versions of mindfulness measurement instruments to choose from (see Table A1 and Exhibits A & B in the Appendix for a detailed review of each instrument). One will notice from Table 7, that it is difficult to determine which measurement tool to use, based on the variations in scope and dimensions measured. Depending on which questionnaire is used, the definitions for the same-labeled facets/dimensions may also vary across instruments (e.g. the “awareness” component of the MAAS instrument is defined differently than the one used in the PHLMS). Language can also be mis-interpreted or interpreted differently in meditating versus non-meditating groups who may be less familiar with mindfulness concepts and terminology (Baer, 2011; Bergomi et al., 2013). While most instruments are trait-based (i.e. assumes people have a baseline of mindfulness and is a skill that can be improved through regular meditation practice (Kabat-Zinn, 2003; Brown and Ryan, 2003; Davis 2009; Baer, 2011; Siegling and Petrides, 2014), a few are state-based, like the TMS instrument, which measures mindfulness before, during and after meditation,

To further complicate matters, some questionnaires are narrowly-focused concepts of mindfulness (e.g. MAAS); others are multi-faceted and/or the result of several mindfulness questionnaires that have been consolidated (e.g. FFMQ), while another scale attempts to look at most of the commonly cited instruments towards identifying a complete mindfulness construct (CHIME). Some statements or facets are reversed-scored; others have sub-scales with separate scoring (PHLMS) while some have overall scores. In my opinion, it would be beneficial to measure the sub-scales separately to help identify what facets an individual might want to improve on, as well as, a total score to measure one’s overall mindfulness capacity.

Langer’s Western assessment tool, the Langer Mindfulness Scale (LMS) is either considered as a separate construct from the Eastern version (Siegling and Petrides, 2014) or is construed as a subset of the Eastern model (Hart et al., 2013). However, the LMS is one of two questionnaires (the other is the Eastern FFMQ (Baer, 2006, 2008) used by Langer’s and Kabat-Zinn’s research teams respectively (Hart et al., 2013), with the LMS14 moderately to significantly correlating with facets of the FFMQ (Pirson, Langer et al., 2012). Moreover, the LMS14 and FFMQ, as well as, other Eastern assessments, such as the MAAS, KIMS and CAMS-R, are confirmed as valid and reliable instruments when measuring mindfulness (Brown and Ryan, 2003; Baer, 2008; Pirson, Langer et al., 2012; Bergomi, et al., 2013; Siegling and Petrides, 2014).

In order to meet sound quality standards, Qu and colleagues (2015) advise that the instrument should have high reliability (accuracy) with a measure of >.70 or greater
and high construct and convergent validity, which means that the tool is favorably correlated with other mindfulness measures and distinguished from other unrelated constructs (discriminant validity). Also, a high criterion-related validity is important to confirm relationships between mindfulness and related outcomes are measured simultaneously (concurrent validity) and sequentially (predictive validity) (Qu et al., 2015).

Qu and associates evaluated eight key mindfulness measures (i.e. FMI, MAAS, KIMS, TMS, FFMQ, CAMS-R, SMQ and PHLMS), all of which are based on the Eastern construct. Contrary to Siegling and Petrides (2014) analysis that the FFMQ, KIMS and CAMS-R appeared to be the best options, with the MAAS being the least comprehensive, the MAAS and PHLMS instruments were noted by Qu and colleagues as the top two respectively, based on the aforementioned quality criteria. Hyland and colleagues indicated that, though the MAAS and FMI are the most popular tools that are used, the MAAS has been criticized for its narrow focus on solely the “attention” and “awareness” facets, while ignoring other dimensions such as “acceptance”, etc. (Hyland et al., 2015). Unfortunately, the Langer Mindfulness/Mindlessness Scale (LMS) was omitted from Qu’s research.

As my research is organizationally focused, I reviewed the measurement tools that were most utilized in the workplace studies indicated in Chapter 2. It appears as if the FFMQ and MAAS were the instruments most frequently cited in these studies.

This section summarized the various, existing mindfulness questionnaires, many of which are valid and reliable. Though there appears to be disagreement among
researchers regarding which questionnaire to use, this is not surprising given the lack of one comprehensive mindfulness construct.

**Mindful Change Questionnaire**

The questionnaire that I developed, took 10-15 minutes to complete and was drawn from several mindfulness and non-mindfulness constructs. This was pre-tested by a small “pilot” group of seven (7) diverse working professionals to ensure statement and rating clarity, objectivity and relevance to organizational change prior to launch.

Initially, Deborah Rowland piloted a questionnaire as part of her own research though she ultimately decided to use just the interview tool, as her instrument could not be validated. I inquired as to whether she had personally developed the survey questions or obtained them from another source. She mentioned that, although she had created a few of the questions, she used the FFMQ (Baer, et al., 2006, 2008) as her primary source. Some of the reasons Deborah cited were that it was the most popular, valid and broad measurement of mindfulness. I would wholeheartedly agree, given that the FFMQ is a consolidation of multiple mindfulness measurement instruments, including the KIMS (originated by Baer), FMI, MAAS, CAMS and SMQ, and is found to have good internal consistency, high construct, convergent and discriminant validity and high reliability (Baer, 2008). According to Bergomi et al., (2013) and Pirson and Langer (2012), the FFMQ appears to be comprehensive for the general population and the most representative of other (Eastern) mindfulness measures. Thus, I also used the FFMQ as my primary source (Exhibit B) in developing my survey instrument. However, I also included a few of Rowland’s statements from her pilot survey, as well as, from Langer’s Western construct (see Table A1 in the Appendix). I chose statements which I believed
were the most workplace- and change-relevant, covering the multiple facets of mindfulness (e.g. awareness, non-reactivity) and applicable to both leaders and individuals leading and/or impacted by change. As such, I modified a few statements from their original sources to achieve this goal and ensured simple and clear language that avoided multi-barreled statements. Additionally, I augmented this survey with a few statements that focused on assessing one’s psychological outlook (e.g. positivity) when coping with organizational change. The final questionnaire is located in the Appendix (Exhibit D). Details, regarding the origin of and rationale for including each question are covered in Exhibit E.

As the questionnaire is a self-report instrument and subject to potential biases (see “Limitations” below), I created an “Introduction” section for this survey. This provided context for my research and indicated that participant responses would be consolidated to preserve anonymity. In addition, participants were not required to divulge personal information, including names, social security numbers or other data that might identify them.

In addition, some survey statements were similar with others and/or were reversed-scored. This was to potentially uncover any inconsistencies in participants’ responses to related statements.

As previously mentioned, the target population consisted of graduate students who were primarily working professionals, including business leaders (executives and managers) and individual contributors from diverse industries and organizations. The survey was voluntary and launched online in April of 2016, with weekly reminders to
complete it over a 4-week period. As a result, out of approximately 250 respondents, 30% (74 responses) participants completed the survey.

Analysis

The quantitative portion of the data was reviewed in the aggregate with simple averages reported for each numerically-scored item. As some of the statements were reverse-scored (6) as part of the “Acting with Awareness” facet, these were also noted accordingly. Consistency of responses was evaluated across similar statements, with any differences highlighted. In addition, the data was reviewed against the particular mindfulness facet/dimension that the statement was intended to cover to identify any additional trends and patterns. Responses to the open ended questions in the survey were qualitatively examined to determine the most common and frequent responses and any trends.

For the qualitative interviews, a coding system was used to organize participant responses by each mindfulness facet, primarily drawn from Baer’s et al., construct from an Eastern perspective and Langer’s Western perspective. Other researchers that influenced the development of my coding system included Brown and Ryan’s facets from their MAAS instrument, as well as Cardaciotto’s et al., PHLMS instrument. As a result, the mindfulness facets that were covered in this research were Awareness, Acceptance/Non-Judging and Non-Reactivity. From a Western view, Novelty Seeking (having an open and curious orientation to one’s environment and Novelty Producing (the capacity to construct new meanings or experiences) were drawn from the Western LMS construct. Also noted from these interviews were key outcomes of mindfulness, compassion and empathy, as well as, negative feelings associated with organizational
change, uncertainty, stress and anxiety. The purpose for doing this was to link actions, thoughts and behaviors with mindfulness and change outcomes. Once the facets were identified, letters in the alphabet were used to identify each participant anonymously. In addition, the page number, paragraph and sentence for each relevant behavior and/or action were also included in this classification system.

Limitations

There are challenges associated with using retrospective instruments (i.e. surveys, interviews), which Huber and Power (1985) define as “accounts of facts, beliefs, activities and motives related to past events” (p. 171). Reported data can be inaccurate and incomplete – whether intentional or not (Huber and Power, 1985). For instance, participants may lack the information to appropriately respond to a survey question but may try to answer the question anyway (Fowler, Jr., and Cosenza, 2008). Or, respondents may intentionally not want to provide an accurate answer, especially if there is a risk, if disclosed or a need for social desirability (Miller et al., 1997; Stone et al., 1998; Fowler, Jr., and Cosenza, 2008). Another obstacle with retrospective assessments involves memory recall. The degree of accuracy and reliability of participant responses are influenced by the elapsed time of the event, the impact it had on the individual (Fowler Jr., and Cosenza, 2008) and memory lapses (Miller, et al., 1987). Multiple studies have shown that memory is malleable, with details misremembered, distorted or forgotten (Hassan et al., 2005). This is because the brain may not notice the details and not store it in one’s memory; new information is added as facts, altering what is re-stored in the brain and may change one’s perception of the event (Hassan, 2005; Kaasa et al.,
2011). The longer the elapsed time, the greater the likelihood of inaccurate recalls (Hassan, 2005).

Even with recent events, there is a potential for one to emphasize the first and last actions taken (i.e. primacy and recency effect) and potentially fabricate a false analysis, if the respondent is unclear as to why she or he took particular actions (Stone et al., 1998). To overcome this, a shorter reference period might provide a more accurate recall, as well as, by maintaining a daily diary or report and encouraging the respondent to indicate s/he cannot remember (Miller et al., 1997; Stone, et al., 1998; Fowler, Jr., and Cosenza, 2008), if this is the case. Retrieval cues or probing about actions associated with a topic, might also improve recall (Fowler, Jr., and Cosenza, 2008).

Finally, Miller and colleagues (1997) advise researchers to focus on facts and specific events, rather than opinions or beliefs to avoid cognitive and social desirability biases. They also recommend using assessments that are demonstrated to be valid and reliable. These factors, along with memory recall, were all considered when developing the appropriate research tools for my research project.

Other limitations to this study include the use of convenience and purposive sample groups, as these may not be diverse enough and representative of the general population. Additionally, the total number of actual respondents in this mixed-methods approach are relatively small (15 – qualitative portion; 74 for the quantitative survey). Additionally, the quantitative portion does not distinguish between meditators and non-meditators, to determine if one group may be more proficient in mindfulness practices during organizational change than the other group; thus, this study is assuming that mindfulness is more trait-based as opposed to state-based. Given there is not one
cohesive mindfulness construct, facets were pulled from a few different instruments, including the Western version. However, given these limitations, the outcomes may hypothesize potential uses of mindfulness and provide further direction for future studies consisting of larger and more diverse sample sizes.

Conclusion

This section covered the methodology used to address my research question, which is to identify practical uses of mindfulness during organizational change. A mixed-methods approach was employed as research related to mindfulness and organizational change was limited and for purposes of triangulating and further validating the qualitative and quantitative data. A purposive sampling technique that was non-random was employed when conducting behavioral-based interviews with fifteen (15) change leaders.

Drawing upon established mindfulness constructs and statements that would be the most applicable to organizational change, a survey questionnaire was also developed. The origin and content design of each instrument was described in detail, as well as, the rationale for sequencing the qualitative instrument before the quantitative one. The primary target population for this survey was a diverse group of approximately 250 students enrolled in the Masters of Science Organizational Dynamics Program at the University of Pennsylvania. This population was representative of a convenience sampling. Out of this number, seventy-four (74) participants responded.

Anonymity and confidentiality were reinforced in the instruments and analyses (through coding) of the outcomes to preserve personal information and minimize any concerns regarding how the information was used. Though the sample groups are
relatively small which may not be reflective of the general population along with other noted limitations to this research, this appears (based on the peer-reviewed literature) to be the first study pioneered in the fields of mindfulness and organizational change.
CHAPTER 4

REVIEW & ANALYSIS OF KEY FINDINGS

Introduction

This Chapter will report the findings obtained from both the quantitative and qualitative research. I will initially consider each type of data separately to discover recommendations to my primary research question which is:

*How can mindfulness be applied (i.e. tools, practices and behaviors) to help individuals cope with organizational change?*

This will then be followed by concluding points and results based on an overall review of the data.

Quantitative Data

As previously mentioned, the primary target population for the quantitative portion of my research consisted of approximately 250 students enrolled in the Masters of Science Organizational Dynamics Program at the University of Pennsylvania, of which the majority of these students were working professionals. This population was representative of a convenience (nonprobability) sampling (Etikan et al., 2015), as I wanted to obtain as many working adults in my sample group as possible in the least amount of time, and at no cost. As a result, 74 students (30%) fully participated (i.e. answered all of the questions) in an on-line survey. Of these 74 participants, 35 were females (47%) while 39 (53%) were males, directionally representing the US population of 50.9 and 49.1 percent respectively as reported in 2010 by the US Census Bureau. The majority of these participants (59) were Caucasian, representing 80 percent of
respondents and greater than the overall Caucasian percentage in the US (63.7% Caucasian) as reported by the US Census Bureau (2010). The remaining 20 percent included six (6) people who self-identified as Asian/Pacific Islanders, three (3) Hispanic/Latinos, one (1) Black/African American and five (5) who self-identified as “Other” which might include races such as Native Americans and Alaskans, or two (2) or more races. This 20 percent (non-Caucasians) is less representative of the US population (approximately 37%) as indicated by the US Census Bureau (2010).

In addition, nine (9) out of 74 participants hold Bachelor’s degrees, while 29 completed some post-graduate coursework, with the majority (36) having Master’s or MBA degrees.

Twenty-six percent (26%) or 19 of the participants were born from 1946 to 1964 (Baby Boomers), while forty-six percent (46%) or 34 were born from 1965 to 1980 (Generation X) and, twenty-eight percent (28%) or 21 were born from 1981 and 1997 (Generation Y). A summary of the generations and their respective characteristics, including their openness to change, are as follows:
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>This group is characterized by valuing job security, a stable work environment and are hardworking and loyal to their companies. They are idealistic and driven as they value having a high degree of power in the organization. Also called the “me generation”, they can be individualistic and selfish, and tend to be competitive. They “live to work” and define themselves by their professional accomplishments. They are excellent mentors, believe in teamwork and consensus building and are goal-oriented. They view their work and career as highly important and started the “workaholic movement” in which commitment and job achievement are measured by working hours. The members of this generation expect feedback, need to be appreciated, and are motivated by position, money, perks, and prestige.</td>
<td>This group, the “latchkey generation” is characterized as more independent, resourceful, and self-sufficient than Baby Boomers. This is a transitional generation, loyal to tradition and new technology. They are highly comfortable with change and diversity and see it as normal. Gen X’s are characterized as cynical, pessimistic and individualistic. They are less loyal and committed to a single employer as they are motivated to improve their career and will likely seek out more challenging options (higher salary, improved benefits) at other companies. Gen X’s are skeptical and unimpressed with authority. If given the freedom to do so, Gen X’s will work hard, are highly motivated and will achieve results as they do not like being micro-managed. They require immediate, continuous feedback, are responsible, eager to learn new things, care about their personal development, and like a variety of work. They want a flexible work environment and skill-based promotions. They value a strong work-life balance and “work to live” as their personal values and goals are more important to them than work. They are technologically adept, creative and will tend to think more globally than Baby Boomers.</td>
<td>Millennials are confident, self-reliant, motivated and highly tech savvy, as they are used to having technology in their lives and often use it to multi-task, complete work quickly, research and problem solve. They will tend to look for an answer to the question “Why” (thus, Gen “Y”) when they are confronted with a problem/situation. Gen Y’s are highly adaptable and have a large capacity for change and can keep pace with it though they can also be impatient and dislike waiting. They respect diversity as they were born into a globalized world and will think more globally than the other generations. Y’s are lifelong learners, valuing training, skill development and education, coaching and mentoring, as they enjoy gaining knowledge and being exposed to multiple work tasks and opportunities. They want responsibility and input into decision-making. Gen Y’s expect quick promotions and may change jobs if not promoted. The Ys are unafraid of becoming unemployed as they trust their families who are ready to support them. They rely on friends/family when making career decisions, enjoy working in teams and making group decisions and having fun in the workplace. They will challenge authority, do not like hierarchy and are not impressed by job roles/titles; rather, they want a manager who believes in them. Gen Y’s are ambitious, driven and demanding with high expectations to rapidly advance. Like Gen X, they “work to live” and want a flexible workplace and schedule, to enjoy a work-life balance. They have an entrepreneurial spirit, are innovative and want to make a difference. They place a high value on trust and transparency. Despite typically being characterized as optimistic, one recent study (Wong, et al., 2008), indicated that Gen Y’s characterized themselves to be the least optimistic of these three generations. The authors suggest that this may be due to seeing past generations fail or not meet their goals and/or be more aware that things can go wrong; thus, Gen Y’s may be more cautious and worried about their own future.</td>
</tr>
</tbody>
</table>
Work-related demographics for participants, consisted of the following information: Average company size was about 875 employees. Out of the 74 participants, the majority were employed in the Not-for-Profit (11), Healthcare (10), or Business & Professional Services (10) sectors. This was closely followed by participants who worked in the Financial (9) and Higher Education (9) fields, as indicated in Table 9 below:

Table 9: Survey Participants by Type of Industry (N=74)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td>10</td>
<td>10</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Hotel &amp; Entertainment</td>
<td>Machinery &amp; Equipment</td>
<td>Media &amp; Publishing</td>
<td>Technology</td>
<td>Telecommunications</td>
<td>Transportation</td>
<td>Utilities</td>
<td>Not-For-Profit:</td>
<td>Other:</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>11</td>
<td>20 (9 of which were higher education)</td>
<td></td>
</tr>
</tbody>
</table>

Participants averaged approximately 20 years of work experience. Of the 74 participants, 42 (57%) reported being “Managers and above” and averaged eleven (11) years of management experience. Twenty-eight (28 or 38%) participants self-identified as “Individual Contributors”, followed by 4 (5%) who indicated their roles as “Consultants”. Participant-related experience regarding organizational change was quite interesting as people averaged playing three (3) of the following change roles as indicated in Table 10 below:

Table 10: Survey Participants’ Roles in Relationship to Organizational Change

| I have sponsored Organizational Change | 43 (58%) |
| I have led change | 52 (70%) |
| I have managed and implemented change | 60 (81%) |
| I have been directly impacted by change | 68 (92%) |
Also depicted in the above Table, is that a substantial percentage of the sample group (92%) has been directly impacted by organizational change. This leads to the likelihood that, no matter what role one has in an organization, almost everyone has been impacted by change.

Shown below, are average scores obtained from the 74 participants based on their responses to 27 statements (of which 6 are reversed-scored) presented in the Mindfulness and Organizational Change Questionnaire (Exhibit D). Each statement is also categorized by a designated mindfulness facet or change-related element. It is important to note that separate averages were compiled for each facet/element statement, along with an overall average for each category. Separate averages were also compiled for each generational sub-group (i.e. Baby Boomers, Generation X and Generation Y). As the latter group (Gen Y) consistently scored better when compared with the overall average scores and responses from Change Leaders (those who have both sponsored and led change), these scores are depicted separately in the foregoing results.

Table 11 depicts the Mindfulness Facet of “Acting with Awareness”, as defined by key researchers. Note that some of the following statements are reversed-scored:
Table 11: Acting with Awareness – Average Scores

<table>
<thead>
<tr>
<th>Mindfulness Statements in Survey (Based on a 5-point Likert Scale: 1) Never or Very Rarely True 2) Rarely True 3) Sometimes True 4) Often True 5) Very Often or Always True)</th>
<th>Overall Average Score “R” = reversed scoring</th>
<th>Gen Y Avg.</th>
<th>Change Leaders (sponsored &amp; Led Change) Note: Sponsored Change only in ( )</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am able to pay close attention to one thing for a long period of time</td>
<td>3.35</td>
<td>3.57</td>
<td>3.34 (same with Sponsors only)</td>
</tr>
<tr>
<td>I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there (R)</td>
<td>2.63 (R)</td>
<td>2.67 (R)</td>
<td>2.61 (R) (2.56 – Sponsors only)</td>
</tr>
<tr>
<td>At any moment, I am conscious of the choices I make</td>
<td>3.99</td>
<td>4.10</td>
<td>3.95 (same)</td>
</tr>
<tr>
<td>I find myself preoccupied with the future or the past (R)</td>
<td>3.22 (R)</td>
<td>3.38 (R)</td>
<td>3.19 (R) (3.18 – Sponsors only)</td>
</tr>
<tr>
<td>I find myself listening to someone with one ear while doing something else at the same time (R)</td>
<td>3.17 (R)</td>
<td>2.95 (R)</td>
<td>3.13 (R) (3.12 – Sponsors only)</td>
</tr>
<tr>
<td>I find it difficult to stay focused on what’s happening in the present (R)</td>
<td>2.62 (R)</td>
<td>2.52 (R)</td>
<td>2.60 (R) (same)</td>
</tr>
<tr>
<td>It seems I am “running on automatic” without much awareness of what I’m doing (R)</td>
<td>2.61 (R)</td>
<td>2.38 (R)</td>
<td>2.58 (R) (same)</td>
</tr>
<tr>
<td>I find myself doing things without paying attention (R)</td>
<td>2.67 (R)</td>
<td>2.48 (R)</td>
<td>2.65 (R) (2.64 – Sponsors only)</td>
</tr>
<tr>
<td>I am sensitive to non-verbal cues when interacting with others</td>
<td>4.21</td>
<td>4.24</td>
<td>4.17 (4.18 – sponsors only)</td>
</tr>
</tbody>
</table>

Awareness Averages:
Non-Reversed Scores (3) 3.86 3.97 3.82
Reversed Scores (6) 2.82 2.73 2.79
Table 11 indicates that average scores for “Awareness” fall approximately in the “high middle” of the 5-point Likert scale (whether reversed-scored or not), meaning, they are not on the extreme high-or low ends. Additionally, Generation Y participants scored better on 7 out of the 9 statements when compared with both Overall Averages and Change Leader scores, while Overall Averages slightly (.03 - .04) surpassed Change Leader scores. One would expect that Change Leaders’ scores would be higher than the other two categories, but this was not the case.

Table 12 illustrates another key Mindfulness Facet of “Non-Judging/Acceptance”, as defined by key researchers. None of the statements in this category were reversed-scored:

**Table 12: Non-Judging/Acceptance – Average Scores**

<table>
<thead>
<tr>
<th>Mindfulness Statements in Survey (Based on a 5-point Likert Scale: 1) Never or Very Rarely True 2) Rarely True 3) Sometimes True 4) Often True 5) Very Often or Always True)</th>
<th>Overall Average Score</th>
<th>Gen Y Avg.</th>
<th>Change Leaders (sponsored &amp; Led Change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I avoid telling myself that I should have thought differently</td>
<td>2.78</td>
<td>2.52</td>
<td>2.75 (2.74 – Sponsors only)</td>
</tr>
<tr>
<td>When interacting with others, I seek to understand before I evaluate</td>
<td>3.92</td>
<td>4.00</td>
<td>3.88 (same)</td>
</tr>
<tr>
<td>When faced with disturbing situations or obstructions during change, I see these as helpful resources that can lead to insights rather than barriers towards progress</td>
<td>3.53</td>
<td>3.57</td>
<td>3.49 (3.52 – Sponsors only)</td>
</tr>
<tr>
<td>I avoid telling myself that I should have responded differently</td>
<td>2.84</td>
<td>2.86</td>
<td>2.82 (same)</td>
</tr>
</tbody>
</table>

**Non-Judging Averages:**
Non-Reversed Scores (4) 3.27 3.24 3.24

Source & Definition:
Baer: (KIMS) being accepting or non-evaluative of thoughts and emotions about present moment experiences (i.e. refraining from applying labels such as good/bad, etc.) to allow reality to be as it is without attempts to avoid, escape or change it.
Cardaciotto et al. (PHLMS) open stance towards those experiences while refraining from attempts to escape or avoid them.

Note: Highlighted scores indicated the highest (or lowest if reversed-scored) one out of the 3 groups
Scores in this category are significantly lower (by .50 - .60) than the non-reversed scored items that were covered in “Acting with Awareness”. Table 12 indicates that average scores for “Non-Judging/Acceptance” fall approximately in the “lower middle” of the 5-point Likert scale. Additionally, though Generation Y participants scored better than the other 2 groups in three (3) out of the four (4) statements, though the overall average for this group was slightly (.03) lower than the Overall Average and equal to the average score for Change Leaders. Again, one would expect that Change Leaders’ scores would be higher than the other two groups.

Table 13 describes the Mindfulness Facet of “Describing”, as defined by key researchers as labeling experiences with words. None of the statements in this category were reversed-scored:

Table 13: Describing – Average Scores

<table>
<thead>
<tr>
<th>Mindfulness Facet – Describing</th>
<th>Overall Average Score</th>
<th>Gen Y Avg.</th>
<th>Change Leaders (sponsored &amp; Led Change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mindfulness Statements in Survey (Based on a 5-point Likert Scale: 1) Never or Very Rarely True 2) Rarely True 3) Sometimes True 4) Often True 5) Very Often or Always True)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can easily put my thoughts into words</td>
<td>3.88</td>
<td>4.05</td>
<td>3.84 (3.81 – Sponsors only)</td>
</tr>
<tr>
<td>Even when I’m feeling terribly upset, I can find a way to put it into words</td>
<td>3.71</td>
<td>3.57</td>
<td>3.68 (same)</td>
</tr>
<tr>
<td>Describing Averages: Non-Reversed Scores (2)</td>
<td>3.80</td>
<td>3.81</td>
<td>3.76</td>
</tr>
</tbody>
</table>
Table 13 shows that average scores for “Describing” fall approximately in the “high middle” of the 5-point Likert scale. Additionally, Generation Y participants scored better on one of two statements (“I can easily put my thoughts into words”) and closely matched (.01) the Overall Average but their score was significantly lower (-.14) when it came to “putting feelings into words when feeling terribly upset”. Again, average scores for Change Leaders were slightly lower than the Overall and Generation Y averages.

Table 14 represents the Mindfulness Facet of “Non-Reactivity”, as defined by key researchers as not getting trapped in one’s thoughts and feelings but “letting them go”.

None of the statements in this category were reversed-scored:

Table 14: Non-Reactivity – Average Scores

<table>
<thead>
<tr>
<th>Mindfulness Facet – Non-Reactivity</th>
<th>Overall Average Score</th>
<th>Gen Y Avg.</th>
<th>Change Leaders (sponsored &amp; Led Change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source &amp; Definition:</td>
<td>Baer: (FFMQ) not getting trapped in thoughts and feelings – allowing to let them go</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note: Highlighted scores indicated the highest (or lowest if reversed-scored) one out of the 3 groups</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mindfulness Statements in Survey (Based on a 5-point Likert Scale: 1) Never or Very Rarely True 2) Rarely True 3) Sometimes True 4) Often True 5) Very Often or Always True)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I notice my feelings and emotions without having to react to them</td>
<td>3.55</td>
<td>3.52</td>
<td>3.52 (3.47 – Sponsors only)</td>
</tr>
<tr>
<td>I consciously make time during disturbing situations to process what’s going on</td>
<td>3.43</td>
<td>3.61</td>
<td>3.40 (3.44 – Sponsors only)</td>
</tr>
<tr>
<td>In difficult situations, I can pause without immediately reacting</td>
<td>3.67</td>
<td>3.71</td>
<td>3.64 (3.66 – Sponsors only)</td>
</tr>
<tr>
<td>Non-Reactivity Averages: Non-Reversed Scores (3)</td>
<td>3.55</td>
<td>3.61</td>
<td>3.52</td>
</tr>
</tbody>
</table>

Table 14 reveals that average scores for “Non-Reactivity” fall approximately in the “middle” of the 5-point Likert scale. Generation Y participants scored better overall
(.06 -.09) than the other two groups. Again, Change Leaders’ overall average score was lower than the Overall Average and Generation Y average.

Table 15 depicts the Mindfulness Facet of “Observing”, as defined by key researchers. Though some aspects of the definition, in my opinion, are similar to “Awareness” (e.g. present moment awareness), none of the statements in this category were reversed-scored:

Table 15: Observing – Average Scores

<table>
<thead>
<tr>
<th>Mindfulness Statements in Survey (Based on a 5-point Likert Scale: 1) Never or Very Rarely True 2) Rarely True 3) Sometimes True 4) Often True 5) Very Often or Always True)</th>
<th>Overall Average Score</th>
<th>Gen Y Avg.</th>
<th>Change Leaders (sponsored &amp; Led Change) Note: Sponsors only in ()</th>
</tr>
</thead>
<tbody>
<tr>
<td>I pay attention to changes in my work environment (i.e. visual, verbal cues, trends) that may have meaning during organizational change</td>
<td>3.93</td>
<td>4.05</td>
<td>3.90 (same)</td>
</tr>
<tr>
<td>I intentionally stay aware of my feelings and how they affect my behaviors and actions</td>
<td>3.64</td>
<td>3.86</td>
<td>3.61 (3.62 –Sponsors only)</td>
</tr>
<tr>
<td>Observing Averages: Non-Reversed Scores (2)</td>
<td>3.79</td>
<td>3.96</td>
<td>3.76</td>
</tr>
</tbody>
</table>

Table 15 indicates that average scores for “Observing” fall approximately in the “high middle” of the 5-point Likert scale (similar to the non-reversed scores under “Awareness”). Additionally, Generation Y participants scored better on both statements.
within this facet when compared with both Overall Average and Change Leader scores. Overall Generation Y averages were .17 - .20 higher than the Overall Averages and Change Leader scores respectively.

Table 16 covers two of three key facets of Langer’s (Western) Mindfulness Scale (LMS) – Novelty Seeking and Novelty Producing. The third facet, Engagement, was omitted as the definition appeared to be similar to and redundant with the statements covered in Self-Awareness:

Table 16: Western Construct – Average Scores

<table>
<thead>
<tr>
<th>Source &amp; Definition:</th>
<th>Western: Langer Mindfulness Scale (LMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Novelty Seeking (NS) – an open and curious orientation to one’s environment to learn something new</td>
</tr>
<tr>
<td></td>
<td>Novelty Producing (NP) – the capacity to construct new meanings or experiences to learn more about the current situation</td>
</tr>
<tr>
<td></td>
<td>Note: Highlighted scores indicated the highest (or lowest if reversed-scored) one out of the 3 groups</td>
</tr>
<tr>
<td>Mindfulness Statements in Survey (Based on a 5-point Likert Scale: 1) Never or Very Rarely True 2) Rarely True 3) Sometimes True 4) Often True 5) Very Often or Always True)</td>
<td>Overall Average Score</td>
</tr>
<tr>
<td>I like to investigate things (NS)</td>
<td>4.22</td>
</tr>
<tr>
<td>I make many novel (new, different, original) contributions (NP)</td>
<td>3.67</td>
</tr>
<tr>
<td>Western Averages: Non-Reversed Scores (2)</td>
<td>3.95</td>
</tr>
</tbody>
</table>

Unlike participant scores for the Eastern Mindfulness facets which fall, on average, in the “middle” of the 5-point Likert scale, Table 16 indicates that for the Western construct, average participant scores for all three groups (Overall, Generation Y and Change Leader
90

Averages) fall on the “high end” of the 5-point Likert scale. As with the Eastern construct, again, Generation Y participants scored better on both facets when compared with the other two group scores. Overall Generation Y averages were .05 - .12 higher than the Overall Averages and Change Leader scores respectively.

Table 17 illustrates scores related to having good control over behaviors and actions during organizational change. This is important, as if one believes they have some “control” over change, people are better able to cope with change (Langer and Moldoveanu, 2000; Fugate et al., 2008).

<table>
<thead>
<tr>
<th>Source &amp; Definition:</th>
<th>Non-Reactivity &amp; Organizational Change – Average Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Control” has been shown to reduce stress and improve overall health (Langer and Moldoveanu, 2000). Fugate et al., (2008) found that when employees view change negatively (i.e. a potential threat or harm), this is often associated with reduced control and increased escape (negative) coping strategies.</td>
<td></td>
</tr>
<tr>
<td>Note: Highlighted scores indicated the highest (or lowest if reversed-scored) one out of the 3 groups</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mindfulness Statements in Survey (Based on a 5-point Likert Scale: 1) Never or Very Rarely True 2) Rarely True 3) Sometimes True 4) Often True 5) Very Often or Always True)</th>
<th>Overall Average Score</th>
<th>Gen Y Avg.</th>
<th>Change Leaders (sponsored &amp; Led Change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe I have good control over my behaviors during organizational change</td>
<td>3.78</td>
<td>3.76</td>
<td>3.74 (3.73 – Sponsors only)</td>
</tr>
<tr>
<td>I believe I have good control over my actions during organizational change</td>
<td>3.83</td>
<td>3.81</td>
<td>3.79 (3.82 – Sponsors only)</td>
</tr>
<tr>
<td>NR &amp; Change Averages: Non-Reversed Scores (2)</td>
<td>3.81</td>
<td>3.79</td>
<td>3.77</td>
</tr>
</tbody>
</table>
Table 17 shows that scores fall in the “high middle” of the 5-point Likert scale, with Generation Y scores falling slightly below (.02) the Overall Average scores; again Change Leader scores continue to lag behind these other two groups (.02).

Finally, Table 18 assesses “Positivity” in relation to Organizational Change, as this is one of the strongest traits associated with positively coping with Change (Judge et al., 1999):

Table 18: Positivity & Organizational Change – Average Scores

<table>
<thead>
<tr>
<th>Positivity &amp; Organizational Change</th>
<th>Overall Average Score</th>
<th>Gen Y Avg.</th>
<th>Change Leaders (sponsored &amp; Led Change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mindfulness Statements in Survey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Based on a 5-point Likert Scale: 1) Never or Very Rarely True 2) Rarely True 3) Sometimes True 4) Often True 5) Very Often or Always True)</td>
<td>4.11</td>
<td>4.03</td>
<td>4.07</td>
</tr>
<tr>
<td>I am generally positive and optimistic</td>
<td>4.21</td>
<td>4.10</td>
<td>4.17 (4.19 – Sponsors only)</td>
</tr>
<tr>
<td>I believe I can positively effect change</td>
<td>4.11</td>
<td>4.05</td>
<td>4.06 (4.10 – Sponsors only)</td>
</tr>
<tr>
<td>I am generally able to effectively deal with work-related changes that come my way</td>
<td>4.01</td>
<td>3.95</td>
<td>3.97 (3.99) – Sponsors only</td>
</tr>
<tr>
<td>Positivity &amp; OC Averages: Non-Reversed Scores (2)</td>
<td>4.11</td>
<td>4.03</td>
<td>4.07</td>
</tr>
</tbody>
</table>

Table 18 indicates that scores fall on the “high end” of the 5-point Likert scale, with Generation Y scores falling below (.06 - .08) the Overall Average scores; interestingly, Change Leader scores are slightly higher than Generation Y scores (.01 - .04) though they continue to lag behind the Overall Averages (.04 - .05).
Finally, Table 19 highlights the Top 5 and Bottom 5 scoring statements covered in the Questionnaire, based on the Overall Average:

Table 19: Highest/Lowest Averages by Facet & Statement

<table>
<thead>
<tr>
<th>By Facet (excludes Reversed-Scored Statements)</th>
<th>Top 5 Statements</th>
<th>Bottom 5 Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positivity &amp; Org. Change (4.11)</td>
<td>I like to investigate things (Western – Novelty Seeking) - 4.22</td>
<td>I avoid telling myself that I should have thought differently (Non-Judging/Acceptance) – 2.78</td>
</tr>
<tr>
<td>Western (Langer) Mindfulness (3.95)</td>
<td>I am sensitive to non-verbal cues when interacting with others (Awareness) – 4.21</td>
<td>I avoid telling myself that I should have responded differently (Non-Judging/Acceptance) – 2.84</td>
</tr>
<tr>
<td>Acting with Awareness (3.86)</td>
<td>I am generally positive and optimistic (Positivity &amp; Change) – 4.21</td>
<td>I am able to pay close attention to one thing for a long period of time (Awareness) – 3.35</td>
</tr>
<tr>
<td>Non-Reactivity &amp; Change (3.81)</td>
<td>I believe I can positively effect change (Positivity &amp; Change) – 4.11</td>
<td>I consciously make time during disturbing situations to process what’s going on (Non-Reactivity) – 3.43</td>
</tr>
<tr>
<td>Describing (3.80)</td>
<td>I am generally able to effectively deal with work-related changes that come my way (Positivity &amp; Change) – 4.01</td>
<td>When faced with disturbing situations or obstructions during change, I see these as helpful resources that can lead to insights rather than barriers towards progress (Non-Judging/Acceptance) – 3.53</td>
</tr>
<tr>
<td>Observing (3.79)</td>
<td>At any moment, I am conscious of the choices I make (Awareness) – 3.99</td>
<td>“Lowest” Reversed-Scored Statements (from Acting with Awareness):</td>
</tr>
<tr>
<td>Non-Reactivity (3.55)</td>
<td></td>
<td>I find myself preoccupied with the future or the past (3.22 R)</td>
</tr>
<tr>
<td>Non-Judging/Acceptance (3.27)</td>
<td></td>
<td>I find myself listening to someone with one ear while doing something else at the same time (3.17 R)</td>
</tr>
</tbody>
</table>
As depicted in Table 19, “Non-Reactivity” and “Non-Judging/Acceptance” are the lowest rated categories, of which four (4) out of the bottom five (5) statements are drawn from these two facets.

Two open-ended questions were also included in the Questionnaire. The first question asked, “What three (3) words come to mind when hearing the word “Mindfulness”? The top response (30 out of 74 participants) was “Awareness”. This was followed by eighteen (18) participants who stated “Thoughtful”, with fourteen (14) indicating “Present”, nine (9) who indicated “Calm” and eight (8) who said “Focused”, The words “Conscious”, “Intention”, “Listening”, and “Peaceful” were also articulated by 6 participants respectively and are depicted in the Wordle below:

Figure 1: Key Words Associated with Mindfulness (Quantitative Data)
Interestingly, perhaps because of the current availability of literature on mindfulness, there appears to be a good understanding of what mindfulness is as opposed to what I hypothesized in Chapter 1 (e.g. it’s too “Zen” or “way out there”).

The second open-ended question posed to participants was to identify what two practices were critical when leading organizational change. Top responses were as follows and appeared to be closely aligned with Kotter’s approach (1995) to organizational change:

- Communication – clear, frequent, repeated and transparent (11) – (43 responses)
- Listening (13 responses; also was mentioned when defining mindfulness above (6))
- Engaging/Involving Others in the Change – ensure buy-in and collaboration – (12 responses)

Other responses indicated a sense of “being” as opposed to “doing”:

- Reflection (6)
- Empathy/Respect for Others (4)
- Honesty (4)
- Patience (3)
- Positive Mindset (2)

In summary, the quantitative scores for the Eastern Mindfulness Facets were not significantly low or high (3.65 average for all facets), while overall scores for the Western (Langer Mindfulness Scale (LMS)) construct were .30 higher (3.95) on a 5-point Likert scale. Scores related to “Positivity” and “Organizational Change” were the highest scores overall in the entire survey (4.11), while scoring related to “Non-Reactivity” and “Organizational Change” was on the “high middle” end (3.81). Generation Ys scored higher than both Change Leaders and the Overall Averages on both the Eastern and Western Mindfulness constructs with the exception of the “Non-Judging/Acceptance”
facet in which their scores were equal to that of Change Leaders and lower than the Overall Average. Likewise, when examining the change elements, Generation Ys scored lower (.02) than the Overall Average but slightly higher than Change Leaders (.02) in relation to “Non-Reactivity and Organizational Change”. However, one facet in which Generation Ys scored lower than both groups (.04 -.08) was associated with “Positivity and Organizational Change”. Finally, though unexpected, Change Leaders lagged behind the Generation Ys and Overall Averages in most categories.

Qualitative Data (interviews)

Behavioral-based interviews were conducted with fifteen (15) large scale change leaders, primarily sourced through Deborah Rowland’s network of contacts within both for-profit and not-for-profit organizations. Deborah Rowland, a pioneer in leadership thinking, practice and mindful change leadership, is the co-author, with Malcolm Higgs, of Sustaining Change: Leadership That Works (Wiley 2008). Deborah, based in the UK, was initiating research for her second book, Still Moving: How to Lead Mindful Change (2017), about mindful change leadership and how leaders lead large scale, complex change in mindful ways. As mentioned, this was a purposive sampling technique that was non-random and grounded in qualitative research (Etikan et al., 2015). As many of these leaders were globally-based, the majority of these 1-hour to 1.5 hour interviews were conducted remotely, though three (3) were conducted in person.

The purpose of these interviews was to learn about change leaders’ specific thoughts, feelings, actions and behaviors when leading organizational change in an attempt to link these actions to mindfulness. Participants were asked, in preparation of
the interview, to think of one or two change stories, which they led, that occurred within
the last two (2) years. Their responses were coded by facet, primarily drawn from Baer’s
et al., Eastern mindfulness construct and Langer’s Western perspective to determine
possible linkages with mindfulness. Other researchers that influenced the development of
my facets and coding system included Brown and Ryan’s MAAS instrument, as well as,
Cardaciotto’s et al., PHLMS instrument. As a result, the mindfulness facets that were
covered in this research included **Awareness**, **Non-Judging/Acceptance** and **Non-
Reactivity**. From a Western view, **Novelty Seeking** (having an open and curious
orientation to one’s environment) and **Novelty Producing** (the capacity to construct new
meanings or experiences) were drawn from the Western LMS construct. Also extracted
from these interviews was data related to negative outcomes of organizational change
(and inversely related to mindfulness), such as, uncertainty, stress and anxiety. Finally,
participants were asked to self-report on their success or failure of their change. As a
result, mindful change practices might be identified that could influence positive
organizational change outcomes.

Of the fifteen (15) Change Leaders, nine (9 or 60%) were females and six (6 or
40%) were males. Out of these fifteen, 3 (20%) were active meditators – two (2)
females practiced daily Eastern meditation and one (1) male was a daily practitioner of
transcendental meditation. Another male was a former meditator as he “didn’t have the
discipline that was required” to continue his practice. Table 20 provides more
information regarding these participants and their change stories.
Table 20: Interview Participant Demographics

<table>
<thead>
<tr>
<th>Participant (* indicates meditator)</th>
<th>Race</th>
<th>Age of Change Story (years ago started and ended from date of the actual interview)</th>
<th>Change Success Rating (self-reported – Scale of 1-5 with “5” as the highest rating)</th>
</tr>
</thead>
</table>
| #1 Female (*daily meditator) AS   | Caucasian  | Started: 1.5 years ago
                     Ended: Ongoing                                                      | 4 Medium Scale; Highly Complex Change                                           |
| #2 Male (*former meditator) ABC   | Hispanic   | Started: 6 years ago
                     Ended: 3 years ago                                                      | 5 (based on KPIs qualitative and quantitative) Large Scale; Highly Complex Change |
| #3 Male MW                        | Caucasian  | Started: 3.5 years ago
                     Ended: this year                                                        | 5 (based on KPIs qualitative and quantitative) Large Scale; Highly Complex Change |
| #4 Female ANH                     | African American | Started: 5.5 years ago
                     Ended: < 1 year ago                                                     | 5 (based on KPIs qualitative and quantitative) Large Scale; Highly Complex Change |
| #5 Female AMF                     | Caucasian  | Started: 3.5 years ago
                     Ended: 3 years ago                                                       | 5 Large Scale; Highly Complex Change                                            |
| #6 Female ANS                     | Caucasian  | Started: 5 years ago
                     Ended: Ongoing                                                          | 4.5 Large Scale; Highly Complex Change                                          |
| #7 Male BB                        | Caucasian  | Started: 4.5 years ago
                     Ended: 3 years ago                                                       | 5 Large Scale; Highly Complex Change                                            |
| #8 Female CB                      | Caucasian  | Started: 3 years ago
                     Ended: < 1 year ago                                                     | 4 Small Scale; Relatively Simple                                               |
| #9 Male MB                        | Caucasian  | Started: 6 years ago
                     Ended: 4 years ago                                                       | 5 (based on KPIs qualitative and quantitative) Large Scale; Complex Change      |
| #10 Male (*active meditator) KC    | Caucasian  | Started: 4 years ago
                     Ended: <1 year ago                                                       | 5 (based on KPIs qualitative and quantitative) Large Scale; Complex Change      |
| #11 Female DM                     | Caucasian  | Started: 4 years ago
                     Ended: 2 years ago                                                        | 4.2 Large Scale; Complex Change                                                |
| #12 Male HM                       | Asian      | Started: 4 years ago
                     Ended: 2 years ago                                                        | 5 Large Scale; Complex Change                                                 |
| #13 Female (*active meditator) KM  | Asian      | Started: 5 years ago
                     Ended: 2 years ago                                                        | 5+ Medium Scale; Moderately Complex Change                                      |
| #14 Female JW                     | Caucasian  | Started: 6 years ago
                     Ended: <1 year ago                                                       | 5 (based on KPIs qualitative and quantitative) Large Scale; Highly Complex Change |
| #15 Female JB                     | Caucasian  | Started: 4 years ago
                     Ended: 3 years ago                                                        | 5 (based on KPIs qualitative and quantitative) Medium Scale; Moderately Complex Change |

The majority (11) of these participants were Caucasian (73%), while the remaining four people (27%) consisted of two Asians, one Hispanic and one African American. Nine (60%) were Americans, while the other six (6) comprised of 4 Europeans, one (1) Hispanic from South America and one (1) who was Arabic.

As mentioned earlier in this thesis, studies indicate that 20% of critical details of a recognized event are forgotten after the first year with 50% irretrievable after 5 years.
(Hassan et al., 2005). Though participants received advanced notice to recall a change story which occurred over the last two years, only one participant (#1) provided a story within this timeframe. Instead, change stories averaged a start date of 4.4 years before the time of the interview and ended 1.6 years (on average) prior to the interview date. This is concerning as, more than likely, participants did not have a sharp or accurate recollection of the facts and actual details and events of their full change stories.

Also previously noted, though the 70% change failure rate is clearly debatable (Hughes, 2011), it was astonishing that 100% of participants’ change stories were self-reported as successful (73% of the ratings were a “5”; the remaining 27% were a “4”), at least from the perspective of the change leader. Though some outcomes were supported by articulated metrics (50%) as indicated in Table 20 under “Change Success Outcomes”, Hughes (2011) posits that change success is determined by individual perceptions and context and not everything can be measured. I question whether these overwhelmingly positive results could be attributed to participants’ recall bias, based on the age of their stories and/or the desire not to be perceived as vulnerable to mistakes and errors, but rather, as an effective and confident leader.

Awareness

The same definition of Awareness, used in the quantitative portion of this research, was also applied to this qualitative analysis. Acting with Awareness is a major part of mindfulness as it includes paying close and full attention to present moment events, without being distracted or on “autopilot”. All fifteen (100%) participants
demonstrated positive examples of Awareness, which included self-awareness, awareness of others and/or their environment.

In the following quote, an executive illustrates self-awareness when using humor in order to avoid resistance to change. “You have to give (feedback) with humor. If I would have screamed or yelled or really got mad, I think there would be resistance” (AMF 2, personal communication, August 12, 2015).

Another aspect of Awareness includes an awareness of others. By building relationships with people and teams, one can leverage their strengths and involve them in the change. This executive explains this concept in more detail:

At the end of the day, we are in the people business, so everything is about relationships. So how can I rely on a team of people that I don’t know? I must get to know them...understand their strengths, opportunities for growth and what is it that is burning...what is that inside of them that maybe they’re afraid of, or they’ve always wanted to do, or they’ve never been asked about?...If you don’t have a level of curiosity about that, then it’s just not multi-dimensional. Human beings are multi-dimensional, so you’re only looking at one dimension of it and that could only possibly be what you get out of it. (KM med 40, personal communication, September 16, 2015)

Lastly, awareness of the environment is another important aspect of Awareness.

This executive demonstrates a 360 assessment he conducted to evaluate the current environment before moving forward with change:

I would call phase one a blueprinting phase.... A part of that process involved customer feedback, employee feedback, going out and asking the organization - What do you like about what we’re doing right now? What do you think we should be thinking more about? How do you think these changes should be possible? And the last part of was, externally, what's going on? So, what are other companies outside of our industry, outside of our space, what are leading companies doing? Benchmarking..., trying to figure out where are we today, and where do we see this world moving. (KC med 9, personal communication, July 28, 2015)
Following is an example of an executive, being self-aware of her negative thoughts and feelings, keeping those in check, while remaining respectful and aware of others while in the midst of having to make a key change decision:

It was very uncomfortable for me because I think I had hit my limit of being patient, and I’m a very patient person. So, I had hit my limit. I felt like we had these conversations before…. I remember feeling like I should be respectful in trying to find a balance. But at the same time, he’s just not cutting it in his role…I think at this point, I had made that very distinctive decision of having to go into a different mode of managing him out and setting myself up for that to happen. (JB 44, personal communication, July 2, 2015)

Lastly, is an example of a leader being aware of herself, and the influence she can have on others and her environment:

I have the advantage of 40 years in this particular field. I think when you build competencies of who you are and your character (determines) how you will behave in the work place. Maybe I wasn't always right….But it's who I am and that's how I do it…For me, the lessons learned is that you live through them and can put your head on the pillow and sleep. You're still worried about a million other things, but that ability to assess how you behave in a situation will help others behave in a certain way. (DM 15, personal communication, June 25, 2015)

Likewise, while all participants demonstrated positive Awareness, both meditators and non-meditators also revealed opportunities for increasing their Awareness (12 interviewees (80%)). For instance, one executive reflects on the importance of leadership during change, while also reflecting on her own shortcomings as a leader:

I think a lot of companies fail because the leadership at the top is not a team and doesn’t act as a team; employees are not stupid…they see right through it. However, “being aware of (my) detrimental leadership style…it’s not the leader that I want to be. And so, I’ve been working on that from different angles and I’m very conscious of that” (AS med 1, personal communication, September 8, 2015)
Another contradictory example relates to organizational change and the notion that it is continuous and one needs to stay on top of it:

I’m a big believer…when everything is changing around you…you better not keep doing the same old thing. You better not presume you have it all figured out because most people don’t. (At the same time, he) saw two things…a front-line organization that I thought was a real strength and not being leveraged, and that we could do better. This thought stuck there for another year…until I had the conviction to say that we’re making this a priority (MW 1, personal communication, June 19, 2015)

Other instances included a lack of sensitivity to others (due to a lack of self-awareness, until feedback was provided), an important component for leading positive organizational change:

We were also getting feedback at the time (that)…we spent way too much time on the head…the rational reason for change…and we were not spending enough time on the heart of change. So, part of this message was to try to create a more emotional connection… (KC med 13, personal communication, July 29, 2015)

Lastly,

People said, you're very, very good, but you're very, very direct. Sometimes that directness can be misinterpreted for anxiety or intenseness and can be very intimidating. This was an interesting insight…it’s always hard to get criticism… In retrospect, I tended to do that afterwards. (MB 37, personal communication, July 9, 2015)

Non-Reactivity

Similarly, as demonstrated above and also aligned with the quantitative data, some participants were skillful at managing their internal and external reactions to change while, in some instances, these same individuals also demonstrated negative reactions – getting trapped in their thoughts and feelings and not being able to let go of them. While the frequency of positive examples of Non-Reactivity was articulated by
only 8 participants (over 50 percent), the number of negative reactions was even less (5 participants or 33 percent).

For instance, one executive, in the midst of a funding crisis, maintained levelheadedness while searching for alternative resources:

We knew that we needed to diversify our revenue sources…I had already been taking steps to make that happen. We hadn't implemented a plan yet, but I had already been meeting with other prospective funders…. I remember feeling like, "Okay, this is a push we needed to accelerate that plan instead of feeling like, oh my God, we're going to fall apart…This is the impetus for developing more aggressive strategies and reworking our plan. (ANH 20, personal communication, October 16, 2015)

Likewise, after a choice was made, this same executive expressed serious regrets over her decision and chastised herself for making them:

I think what was happening was this feeling like buyer’s remorse, after having transitioned to this organization, and then within six weeks later we lost funding. And here you are with this organization that you would not have chosen if it weren't for that funding. And I kicked myself. I had such a hard time, beating up on myself for making a decision based on that factor, for being afraid to reject that organization and stick to what I believed in my heart would be best for us. (ANH 34, personal communication, October, 16, 2015)

Another example of Non-Reactivity and Reactivity are reflected in the following examples. The first example describes an executive not reacting to a board member’s very different perception of the timing and pace of the change:

Our (board member) seemed finally won over to the idea… Then I said, so in what kind of timeframe do you envisage this happening? And he replied, oh, in about ten years. Okay, so he's kind of bought in, but maybe not very much…. we were looking to move much faster than that. In the end, we did. I probably laughed. A little bit of humor. Honestly, I think we could probably do it quicker than that. The moment passed. I didn't want to turn it into a big confrontation. It was a victory that he agreed. (JW 42, personal communication, August 14, 2015)
However, as unexpected hurdles surfaced during the implementation process, this same executive began to have serious doubts about her ability to implement the change:

We should have started going live, but the contracts were not finalized. My #2, who had been leading this, had just given up and left to work for another company. All the naysayers were having a field day saying it couldn’t be done…. I was thinking, gosh, maybe I won’t be able to make this work, even if it is the right thing to do. I had some major doubts along the way. I coped and just kept working on it… I was doing massive cheerleader stuff on the outside…the more doubts I had, the more cheerleading I did. (JW 17, personal communication, August 14, 2015)

Non-Judging/Acceptance

Another facet of Mindfulness, Non-Judging and Acceptance, emphasizes accepting thoughts and emotions without judging them as good or bad or trying to escape, avoid or change reality. This area was interesting as the results were inversely related to the Awareness and Non-Reactivity outcomes. Specifically, there were more negative examples that were identified in the transcripts by eleven (11) participants than positive ones (6 participants) and appeared to be stress- or anxiety-related or based on a need to manage uncertainty by maintaining control. First, I will provide some sound examples of what positive Acceptance/Non-Judging looks like. The first one depicts a recognition that both the head and the heart are important factors to consider during organizational change and acceptance by the executive that, though the heart was not his tendency to pay attention to, he made sure he did so with his teams in the midst of change:

(Regarding a Task Oriented Approach) Because people are busy they don't have time to complain and bitch, but I also think one must keep in mind that when you create task-orientation, you can create a monster. So, you must recognize that sometimes you can lose the feeling that comes with it, that you're always reporting on task and not touching base with the feelings people may have. Because I'm
happy when the tasks are going well, you tend to move on to the next subject, rather than touch into people's feelings…You have to make sure that's still on the table. That’s why I would always walk around the plants and really try to talk to the people on the floor. How do you feel about this? Have we done some things that are better? Are we still lacking in other areas? So, they really feel they have a voice. (BB 26, personal communication, June 16, 2015)

Another example, relates to an executive’s acceptance of her clients’ point of view, though this did not prevent her from thinking outside of the box for innovative solutions in changing her clients’ mindset:

So, we just realized that it was silly to pay agencies for sourcing candidates; who would also market them to all of their other clients, to make money off of them. So, this was the concept that we wanted to get away from. We needed to prove ourselves. We can't say to a manager, "Well, we're not going to work with an agency not because we don't want to pay for it, but because there's all these good business reasons why it doesn't make sense. We wanted that to become the exception versus the norm, and it was the norm. (JB 43, personal communication, July 2, 2015)

Finally, another executive reflects on the reality of peoples’ openness to organizational change:

Well the problem, it's truly my opinion now, a big corporation, a lot of people are working in the company not for the sake of the company, but for their own sake. Which means that sometimes you want to transform an organization, people don't care. You see it…what you care about is your own priority, your own agenda, and if people challenge too much against your own agenda, they fire, they block you, you end up having a fight that you shouldn't be having. (HM 23, personal communication, July 16, 2015)

Contrary to accepting “what is” without judgement, is the narrative of an executive who was very frustrated for being questioned by the Board:

I sometimes give myself a high five for not ripping the head off some of them, because they’re so stupid with some of the questions they had. I laugh about it and encourage the rest of the team not
to be demotivated. (MB 37, personal communication, July 9, 2015)

In another example, an executive, in an attempt to maintain control and ensure buy-in from others regarding his vision, convinced his team that his way was the best way, as opposed to hearing alternative options and taking an inclusive stance towards hearing others’ viewpoints:

I spent a lot of time on the price of ownership. It wasn’t good enough to say, I know you don’t agree with that, but I’m just going to spend time to convince you that this is the right thing to do. That took months. A lot of time was spent with my direct reports and making sure that they picked people that they felt would carry their vote. They picked people whose opinion would matter and I had the final pick over that team. (KC 22, personal communication, July 28, 2015)

Finally, the following is one of many examples of people having regrets or anxiety over how they reacted or handled a particular situation, rather than accepting it for what it is:

There are things you would like to do better and (it) would have been around how (internal) people are handled in the (change) process. Some of it might have been a little more corporate courage with our board chair, being firmer with him about how he should have treated our people. And on the other hand, maybe not. I don’t know that it would have looked like I was defending them (people) too much. I don’t know how that would have gone over, but sometimes I feel like I should have said more to him. (DM 23, personal communication, June 25, 2015)

Stress, Anxiety & Uncertainty

Following are more examples of participants’ experiencing stress, anxiety and uncertainty during organizational change. In the following example, is an executive experiencing all of these in the midst of an important decision she had to make regarding the future of her organization:
I was struggling with what I felt was right for XX. There was a feeling and a vision that I had but it seemed that there was something I believed internally that was best and right for XX, under my leadership. There were other factors that were influencing whether what I was feeling was right or causing me to question. I was constantly sort of oscillating. I was just ambivalent. It was a struggle between facts that were in my head and feelings that were in my heart. So, it was that constant war or battle going on between those two realities. (ANH 2, personal communication, October 16, 2015)

The following describes an executive in a new country with a “charge” to change the way his organization will partner with a Fortune 500 company (a David and Goliath situation) that would negatively impact the latter and strain their relationship:

I feel fear, especially when working in a new position in a different country. It was my highest position that I had in my life… But the same time, I knew I was doing what I should do and that's what I need to survive. When I know I'm doing my job in my best way, and I'm doing this in a very honest way to provide the best result to my company, that's what I need. And the consequences will come. The fact that I will maybe squeeze the challenge or damage it by the decisions that I take is one fact. The other factor is that it will not stop me to do what I must do. (ABC former med 20, personal communication, July 26, 2015)

Another example of an executive in the midst of a key organizational change, depicts the uncertainty, anxiety and stress associated when one has to moderate multiple stakeholders' concerns, needs and agenda:

This was a real downer moment. I was engaging the different members and negotiations were going around the clock for weeks on end…and the issues ranged from the sublime to the ridiculous. They were genuine debates but people were even arguing over where a comma was placed in the agreements. I had never attempted anything like this before, so there were some real dark days for me. I kept a diary. This was quite interesting. I started thinking, oh my God. I started really feeling worried about all of this, and I wasn't feeling good when I woke up and went to work. (JW 16, personal communication, August 14, 2015)

In my opinion, there appeared to be a keener, articulated, awareness among meditators (as opposed to non-meditators) of these negative feelings, which in turn,
resulted in a calmer, more productive response to change, including taking some potential risks, while in the midst of stress, anxiety and uncertainty. Two examples of this follow:

We had four job families that we created and mapped all 800 jobs around the world. Talked about competencies, how people would be selected into those new roles…This was by far the hardest part to manage them through, because some would have a role, and about 25% of them would not. You’re also having to manage through about a year and half of uncertainty. Will I have a job? It’s never been tried before….we usually don't do global things very well. And then the sustainment piece of this was how do you (ensure) the right feedback loops and mechanisms to make sure that the change is actually working relative to your expectations and promises. (KC med 9, personal communication, July 28, 2015)

The other:

I still had this nugget, this beat-up point in my brain that leaders had to have a strong front, more stoic than vulnerable. Okay, this is who I am, and I am not just a leader, how I show up in the world. I was still afraid to share on that level of personal information of, Hey, I'm going through a really, really difficult time, and I'd never crossed this bridge before and I'm scared. I'm going to need your help. I never laid out like that before. I was nervous in talking with the team and saying that I'm strong and capable, but I also want them to know my emotional state, because it's important that they know that it's a little wobbly right now, and that doesn't mean I'm going to steer the car off the cliff. I really could use everybody's help. And I will do my part and get everybody else shored up too. That was another really good meeting, where people came up afterwards and shared their stuff, lessons that they had learned. It was truly remarkable in that sense. (KM med 40, personal communication, September 16, 2015)

**Compassion & Empathy**

As previously noted, compassion for others and empathy are outcomes of mindful practices which can influence positive organizational change outcomes. As such, it is important to note that 66% or ten (10) of the participants demonstrated this capacity when recounting their change stories. Some remarkable examples are as follows:

There was the earthquake in X, and we all stopped everything we were
doing to help our clients. And for me, it was a kind of devotional story I used….We were a great insurance company because we just flew to X put up tables, shelves, mobile homes, and we started to welcome people 24/7 to have them sit in so they are not lost, and help them quickly get some money because they had no homes, no water, nothing. And this is how you take care of your clients. You don't ask for a policy number and questions and questions. It's by putting yourself really into the life of your clients. (HM 15, personal communication, July 16, 2015)

Another example:

I really believe in people finding what their highest contribution is because there's a sense of such satisfaction and reward for themselves. And I've had teams from that point now come back to me and say, oh my goodness. It really resonated with me to hear that. I'd never been told that in my work environment. You take the whole person who shows up think about their highest contribution. You don't take a job description, which is a static thing, and impose it on a human being. (KM med 40, personal communication, September 16, 2015)

**Western Perspective of Mindfulness**

From a Western Perspective, using Langer’s construct, twelve (12) out of fifteen (15) participants provided solid examples of Novelty Seeking (i.e. demonstrating an open and curious orientation and perceiving situations as opportunities to learn something new) and Novelty Producing (i.e. constructing new meanings and experiences by uncovering or generating new information that enables one to learn more about a current situation). As with the quantitative data, these Western attributes appear to be more common and natural to participants than some Eastern aspects of Mindfulness (e.g. Non-Judging/Acceptance, etc.). Following is an example of how an executive who used Novelty Seeking to change the leadership from an “I” to “We” thinking team:

But I still had to deal with how do we get people from that 'I' culture to a 'we' culture? I decided I'd try something somewhat novel. I discussed with the leadership team about each of them taking on essentially a global excellence role. So, the guy in Europe would be
responsible for global commercial excellence. The guy who was a good manufacturing guy, not necessarily a great commercial guy, took on global operations. I did not do this in a team meeting. I went to the individuals and discussed it with them first, because I wanted to get buy-in from each. (BB 57, personal communication, June 16, 2015)

Another executive used Novelty Producing when “branding” their internal talent acquisition function as an alternative to using external recruitment firms:

We started to think about, how can we brand this, to raise awareness, to change mindsets? We really wanted to earn credibility and help managers see that using an agency didn't need to be their first thought when they had a job opening. Their first thought should be looking at their own internal recruiting team as subject matter experts who are capable to provide them with talent.. There were different kinds of battles that we had to overcome with different groups. What we realized was we really have something unique that we're starting to build. We're becoming good at it...it’s taking some trial and error but we're learning and improving. Branding and messaging - I would call that our secret sauce (which) enabled us to change mindsets. (JB 58, personal communication, July 2, 2015)

Other executives, used a combination of both Novelty Seeking (NS) and Novelty Producing (NP) when attempting to improve the customer experience and re-designing a company into a more brand-oriented one, respectively:

I went on Undercover Boss (NS). I had to crawl...you get a lot of dirt. You’re just trying to show, looking I’m willing to do whatever you do… (As a result), I wanted to change the customer experience (NP). (MW 51, personal communication, June 19, 2015 interview)

Another stated:

I started SWAT teams. And it's a direct page out of the playbook that I invented.. to turn ourselves from X to a brand company. You can only do that by strategic long-range planning. I asked for volunteers...somebody from every group to have representation. There’s a SWAT team leader and I'm going to be the champion for all three, but I'm not going to be the leader. When we met, I said, you have a day job and this is your other job. You are brand manager. This is about the whole more than the parts...you're thinking bigger …across the company. We set up monthly calls with the EU counterparts. And then all of a sudden, they start saying, wow, this
SWAT team is really kicking it…Over the last three years, the SWAT teams have been replicated. Now there's a global SWAT team. I brought this notion into the company as a response almost in a defensive way to be offensive. (ANS 55, personal communication, July 14, 2015)

As with the quantitative data, an open-ended question, “What three (3) words come to mind when hearing the word “Mindfulness?” was included in the interviews. The top responses (4 out of 15 participants) were “Being Present” (4; and mentioned by two (2) of three (3) meditators) and “Reflection” (4), followed by “Compassionate & Empathetic” (3), which was mentioned by two (2) out of three (3) meditators. The following words, “Honesty”, “Intention”, and “Thoughtful” were articulated by 2 participants respectively, as depicted in the Wordle below. “Present” was also mentioned by 14 participants in the quantitative group. Interestingly, “Awareness” was omitted by this interview group, though it was mentioned by 30 respondents in the quantitative questionnaire. Perhaps “Awareness” was interpreted by some respondents as being synonymous with being “Present”.

Figure 2: Key Words Associated with Mindfulness (Qualitative Data)

I will now summarize both the qualitative and quantitative findings in this Chapter. Out of eighty-nine (89) participants, (74) are enrolled in the Masters of Science Organizational Dynamics Program at the University of Pennsylvania of which most are working professionals who responded to the quantitative (survey) portion of this research. Ninety-two (92%) of this group has been directly impacted by workplace change. The remaining 15 are large scale Change Leaders from all over the world who participated in the qualitative (interviews) segment of this inquiry.

The quantitative portion was organized by a designated mindfulness facet or change-related element based on a 5-point Likert scale. Separate averages were compiled for each facet/element statement, along with an overall average for each category. Upon review of the Eastern Mindfulness construct, the “Awareness” facet received the highest
overall score (3.86) when compared with the other Eastern facets: “Describing” (3.80), “Observing” (3.79), “Non-Reactivity” (3.55) and “Non-Judging/Acceptance” (3.27).

The highest-rated statements within the Eastern construct were: a sensitivity to non-verbal cues when interacting with others (4.21 – Awareness) and having a conscious awareness of the choices that one makes (3.99 – Awareness). This was followed by an attention to changes in one’s work environment (e.g. visual, verbal cues, trends) that may have meaning during organizational change (3.93 – Observing) and when interacting with others, seeking to understand before one evaluates (3.92 – Judging/Acceptance).

As “Non-Reactivity” (3.55) and “Non-Judging/Acceptance” (3.27) received the “lowest” overall scores, it is not surprising that the lowest-rated statements in the entire survey are derived from these particular facets: a) I avoid telling myself that I should have thought differently (2.78 – Non-Judging/Acceptance), b) I avoid telling myself that I should have responded differently (2.84 – Non-Judging/Acceptance). Additionally, “consciously making time during disturbing situations to process what’s going on” (3.43 - Non-Reactivity) and “when faced with disturbing situations or obstructions during change, I see these as helpful resources that can lead to insights rather than barriers towards progress” (3.53 - Non-Judging/Acceptance) were also included from these categories in the “Bottom 5”.

Though the facet of “Awareness” had the “highest” overall score for the Eastern construct, this category also contained some statements that were “sometimes true” or rated in the lower middle as a result of reversed scoring. For example, it was only “sometimes true” for participants to pay close attention to one thing for a long period of time (3.35), being preoccupied with the future or the past (as opposed to the present
(3.22-R)), and listening to someone with one ear while doing something else at the same time (3.17-R).

In addition, Generation Y’s scored higher than both the Overall Average and Change Leaders’ scores in 17 out of 20 statements listed in both the Eastern and Western constructs, though not as high as the Overall Average in the two Change elements. Change Leaders consistently lagged behind the Overall Average and Generation Y scores in all categories though higher than the Generation Y scores when related to “Positivity and Organizational Change”. One would expect that Change Leaders’ scores would be higher than the other two groups in all mindfulness and change facets.

The Western version of Mindfulness (i.e. Langer Mindfulness Scale – LMS) was used to measure two key facets – “Novelty Seeking” and “Novelty Producing”. Though only two statements were a part of this construct, the Overall Average (3.95) for this facet was higher than any of the Overall Averages reported in the Eastern construct. The highest scoring statement in the entire survey, “I like to investigate things” (4.22) was derived from the “Novelty Seeking” facet. Thus, is was not surprising that average participant scores for all three groups fell on the “high end” of the 5-point Likert scale. Again, Generation Y’s scored better (4.00) than the other two groups (Overall Average – 3.95), with Change Leaders’ scoring slightly lower (3.91) than the others.

Upon review the Organizational Change elements, “Positivity and Organizational Change” was the highest scoring facet in the entire survey (4.11), while “Non-Reactivity & Organizational Change” averaged 3.81. Change Leaders’ scores (3.77) slighted trailed behind Generation Y scores (3.79), which were slightly below (.02) the Overall Average (3.81) in the latter facet.
Upon review of both the qualitative and quantitative data, while Change Leaders’ survey scores were below the Overall Averages, 73% of the 15 Change Leaders’ who were interviewed, reported, from their perspective, that their “change success” score, based on their change story, was a “5”, the highest rating, while the remaining 27%, conveyed another high score of “4”. Unfortunately, this same question was not posed to Change Leaders’ in the quantitative portion of this research in order to potentially triangulate responses.

The top three words that survey participants used to describe “Mindfulness” were “Awareness” (30 out of 74 participants), “Thoughtful” (18/74), “Present” (14/74), while the fifteen Change Leaders who were interviewed, indicated “Being Present” (4 out of 15 participants), “Reflection” (4/15), followed by “Compassionate and Empathetic” (3/15). As such, there appears to be a good understanding of what is meant by Mindfulness based upon the literature.

Aligned with the quantitative portion of this research, interviewees provided sound examples of “Awareness” of themselves (i.e. thoughts and feelings), others and their environment while also revealing opportunities to improve their awareness of self, others and their environment. Likewise, interviewees, while skillful at managing their internal and external reactions to change, also articulated negative examples of “Non-Reactivity”, though there were more negative examples than positive ones provided relating to “Non-Judging and Acceptance”. This correlates with the quantitative results as this facet received the lowest overall score (3.27) in the survey. In addition, the interviews provided many robust examples of Change Leaders (both meditators and non-
meditators) experiencing stress, anxiety and uncertainty, while also, some demonstrated empathy and compassion for others during organizational change.

The next and final Chapter will analyze and triangulate these qualitative and quantitative findings in more detail, as well as, provide recommendations for practical applications of applying mindfulness during organizational change.
CHAPTER 5
ANALYSIS OF KEY FINDINGS & CONCLUDING POINTS

Introduction

This Chapter will begin with an analysis and interpretation of the mixed methods approach (i.e. using both quantitative and qualitative data) employed in this research to better understand how mindfulness practices can be applied to help individuals and organizations cope with organizational change. This information will also be triangulated to identify potential areas of convergence or divergence in order to further validate the results (Johnson et al., 2007). A discussion of how this data connects (or doesn’t link) with the literature covered in Chapter 2, will be integrated into this analysis. This will be followed by a discussion of the limitations of this research, practical implications and future research recommendations. Finally, this chapter will end with concluding points and personal insights.

Data Analysis & Interpretation (including triangulation and relevance with the existing Literature)

I chose a mixed-methods approach, using both qualitative and quantitative instruments, in an attempt to review the data from multiple angles in order to obtain holistic insights. Thus, I will be comparing and contrasting the quantitative with the qualitative outcomes. In addition, I will be comparing these insights with the existing literature. This was important, especially given the limited amount of research related to mindfulness and organizational change.

Awareness & Observing Facets
As noted in Chapter 2, “Awareness” is a core aspect of mindfulness from both Eastern and Western perspectives. Being fully awake and seeing things as they are in the present are key aspects of mindfulness. Preoccupations with the past can result in regrets; concerns about the future can lead to worries of things that have not happened (Kabat-Zinn, 2013). Brown and Ryan (2003) posit, that while “Awareness” is the “radar” and “attention” heightens awareness of external and internal stimuli; one may be aware but not always attentive. Likewise, Langer also references the importance of “Awareness” when she describes mindfulness as being “heightened involvement and wakefulness in the present” (Langer & Moldoveanu, 2000).

Although “Awareness” was overall, the highest rated facet in the Eastern Mindfulness construct, and, in my opinion, is closely related to “Observing” based on the researchers’ definition which emphasizes “attention”, survey participants, nevertheless, indicated opportunities for increasing their awareness. While paying attention to non-verbal (4.21 - Awareness) and visual cues in the work environment (3.93 Observing) and being conscious of the choices one makes (3.99 - Awareness) were highly rated, other descriptors of “Awareness” statements were not as strong. Namely, one opportunity that was revealed was to enhance one’s focus and concentration. This was depicted by neither a high nor low score in the following statement: “I am able to pay close attention to one thing for a long period of time” (3.35). Similarly, “distraction” (including not focusing or concentrating on one thing in the present) and a lack of “listening” appeared to be key themes as participants sometimes observed themselves listening to someone with one ear while doing something else at the same time (3.17 R) and being
“preoccupied with the future or the past” (3.22 R). While “listening” was cited in this research as a key word related to mindfulness and also ranked as the second most important change practice, it appeared as if survey and interview participants did not always apply this attribute based on their responses. “Distraction” is also aligned with Hallowell’s (2005) observation that people have trouble prioritizing, staying focused and organized in today’s complex environment of continuous change resulting in what he calls, “Attention Deficit Trait” (ADT - p. 19).

As the literature indicates (Chapter 2), studies have also shown that Mindfulness practices have been associated with improved attention and concentration, namely, through mindfulness practices one becomes more adept at noticing when the mind is wandering and is able to quickly return to the present moment (Baer, 2003; Good et al., 2016). Moreover, mindfulness may help stabilize one’s attention and reduce performance variability and improve safety by decreasing the number of errors due to attention lapses or distractions and improving alertness during interruptions (Good et al., 2016).

Similarly, out of the 15 Change Leaders who participated in the interviews, though 100% demonstrated self-awareness, awareness of others and/or their environment, the majority (80%) also provided contrary examples of times when they lacked awareness. Jon Kabat-Zinn (2015) asserts that everyone has the capacity to be mindful. Thus, the findings suggest that there is clearly an opportunity for participants to cultivate greater awareness, attention and observation in the present should they so choose.

Non-Judging/Acceptance
As the literature indicates, Mindfulness promotes a non-judgmental stance, enabling one to evaluate data in a neutral, detached (witnessing) manner without immediately reacting or interpreting a situation as either positive or negative. This approach may promote a safer environment for employees to be open to constructive feedback and learning (Hyland et al., 2015), voice their opinions, and be more resilient to setbacks (Good et al., 2016). Contrarily, “Non-Judging and Acceptance” (3.27), which emphasizes accepting thoughts and emotions without judging them as good or bad or trying to escape or change reality, was the lowest rated facet in the entire survey. This applies to both the quantitative and qualitative results which appeared inversely related to positive outcomes. For instance, when examining the quantitative data, three (3) statements within this particular facet were included in the “Bottom 5” statements as self-reported by participants. Specifically, this was demonstrated by the “rarely true” ratings in the areas of “avoiding to tell oneself she/he should have thought (2.78) and responded (2.84) differently” and “viewing disturbing situations or obstructions during change as helpful resources that could lead to insights rather than barriers towards progress (3.53 “sometimes true”).

In the interviews, more negative examples of “Non-Judging and Acceptance” were provided by eleven (11) participants, than positive ones. These inverse examples appeared to be related to a strong desire to manage and control change and minimize uncertainty. The responses appear to correlate with a low “Risk Tolerance Factor” as cited by Judge et al., (1999) which includes a lack of tolerance for ambiguity (e.g. an executive viewing questions from others as “stupid”), a lack of openness to experience
and risk aversion (e.g. an executive who spent a lot of time convincing his team to go along with his vision and ensuring he had the final say over who they picked on their teams (rejecting others’ opinions or non-engagement). Alarmingly, this is a factor that Judge et al., (1999) contends is less changeable and more difficult for people to develop.

Non-Reactivity

Mindfulness can also foster self-regulation of less reactive behaviors and emotions, such as hostility and anger (Good et al., 2016; Yu and Zellmer-Bruhn, 2017) which may lead to less impulsive reactions and more sound decision making with greater cognitive flexibility and reduced bias (Hyland, et al., 2015). Thus, it was important to examine this facet based on its importance to the mindfulness construct. “Non-Reactivity” (3.55), as defined by key researchers, as not getting trapped in one’s thoughts and feelings but “letting them go” was the second lowest rated facet. Participants reported that it was sometimes difficult to “make time during disturbing situations to process what is going on” (3.43 and in the Bottom “5”), “pause without immediately reacting in difficult situations” (3.67) and notice one’s feelings and emotions without having to react to them (3.55). While, there were some positive examples from Change Leaders’ at managing their internal and external reactions (e.g. levelheadedness, use of humor) to change, some of these same leaders also reported difficulty in the midst of crisis and uncertainty. Key themes that emerged included being harsh and self-critical of oneself and expressing self-doubt over one’s abilities to lead and implement change, especially in situations in which participants perceived a lack of control.

These behaviors are aligned with the literature as three of the seven dispositions required for coping with change (Judge, et al., 1999) include a belief in oneself that they
have the right skills (Self-Efficacy), a sense of personal competence and worthiness (Self-Esteem) and a sense of calmness and positive emotional state (Positive Affectivity). Also, another disposition, Locus of Control, denotes having a sense of control over change which can improve one’s reactions to it (Oreg et al., 2011). These strategies make up the “Positive Self-Concept Factor” (Judge, et al., 1999). Unlike the “Risk Tolerance Factor”, the “Positive Self-Concept Factor” can be developed and altered (Judge, et al., 1999). This aligns with Folkman, Lazarus et al., (1986) coping strategies which include “Self-Control”, “Positive Reappraisal”, and “Planful Problem Solving” – of which the latter two they believe are changeable.

Describe

Describe was defined by Baer et al., (2006) as being able to put one’s experiences, thoughts, feelings, etc. into words and is strongly associated with good mental health. As the mindfulness facet is strongly related to Emotional Intelligence (EI), with “Describe” as the most important element towards understanding this relationship (Baer et al., 2006), it was important to include this facet. Though most participants reported that they could “easily put their thoughts into words” (3.88), it was slightly more difficult to do so “when they were terribly upset” (3.71). In my opinion, this .17 difference between these two statements correlates with the results related to “Acceptance/Non-Judging” and “Non-Reactivity”. Specifically, when participants are calm and do not label their negative thoughts and feelings as “good” or “bad”, they tend to be less reactive and more adept at describing their experiences. However, when under stress, it appears as if it becomes more difficult to express oneself.

Western Mindfulness Construct – Langer Mindfulness Scale (LMS14)
In this construct, only two (2) out of fourteen (14) statements in the LMS were utilized in the survey, mainly for brevity purposes, but also because some of the statements appeared to be redundant with one another. For instance, the two statements used in the survey related to Novelty Seeking (NS - a curious orientation and openness to learn new things) and Novelty Producing (NP - the ability to construct new meanings or experiences to learn more about a current situation) which were:

I like to investigate new things (NS) – 4.22 overall average

I make many novel (new, different, original) contributions (NP) – 3.67 average.

Thus, including other statements such as “I generate few novel ideas (NP), “I am very creative” (NP), “I am very curious” (NS) or “I like to be challenged intellectually” (NS) from the LMS14 would not have provided any further insights towards mindfulness and change (in my opinion).

In addition, the third facet of the LMS14, “Engagement” was excluded from this survey.

“Engagement”, defined as being aware of and noticing environmental changes included such statements as “I seldom notice what other people are up to”, I am rarely aware of changes”, “I am rarely alert to new developments”. These appeared to be redundant with the “Observing” and “Awareness” facets from the Eastern construct, which were included in the survey, such as, “paying attention to changes (visual, verbal cues, trends) in my work environment that may have meaning during organizational change” (3.93 – FFMQ/Rowland “Observing” Facet) and “being sensitive to non-verbal cues when interacting with others” (4.21 – PHLMS/Rowland “Awareness”) and “finding it difficult to stay focused on what’s happening in the present” (2.62 (R) – MAAS/FFMQ
“Awareness”). However, in retrospect, including a few redundant statements from the LMS14 “Engagement” facet for cross-comparison purposes from both Eastern and Western constructs, would have been interesting to examine any scoring differences.

The Overall total score for the Western LMS construct was 3.95, compared with a total score of 3.69 for the Eastern construct which, again, included the following facets: “Awareness”, “Describing”, “Observing”, “Non-Reactivity” and “Non-Judging/Acceptance”. This is not surprising as, similar to the interview responses, “Novelty Seeking” (4.22) in particular, appears to be more common and natural for participants than employing some of the Eastern facets of Mindfulness. In fact, “I like to investigate things” (NS) was the highest scoring statement in the entire survey, with Novelty Producing (NP), “I make many novel contributions” (3.67), appearing somewhere in the middle of all survey scores. Participants appeared to be less inclined to think out of the box and generate creative ideas.

Based on the literature, the LMS14’s “Novelty Producing” facet (3.67) moderately significantly correlated with the FFMQ’s (Eastern) total score in one study. This is aligned with the research in this study as the overall score for all of the Eastern facets in this survey averaged 3.69. In the same study (Pirson, Langer et al., 2012), the “Engagement” facet also significantly correlated with the FFMQ’s “Non-Judgement” facet (3.43 total subscale score in this survey), which is another reason why, in retrospect, statements from the Engagement facet should have been included in this research.

It is difficult to compare Eastern versus Western mindfulness scores as there were significantly fewer facets (two) with only two statements appearing on the questionnaire for the latter. However, as both Eastern and Western mindfulness practices espouse
greater creativity and innovation as an outcome (see page 41), perhaps this is an area for potential convergence for these two separate constructs and could be considered in future studies.

Non-Reactivity & Organizational Change

The statements created for this category were based on the literature, as opposed to drawing from a specific mindfulness or change construct or facet. The intent of these statements was to determine participants’ sense of control over their actions and behaviors during organizational change. “Control” has been shown to reduce stress and improve overall health (Langer and Moldoveanu, 2000). As the purpose of mindfulness, according to Carson and Langer (2006), “is to increase cognitive and behavioral control, thereby facilitating people’s capacity to tolerate uncertainty, be less reactive, and more flexible, and to experience a more meaningful engagement with their environment” (Hart et al., 2013), I was curious to cross-compare responses in this category with those in the “Non-Reactivity” facet. While the overall average score of 3.81 was in the “high middle” for “Non-Reactivity and Change”, the overall score for the “Non-Reactivity” facet was 3.55 - a .26 point difference. A further analysis of the statements in the “Non-Reactivity and Change” category indicate that participants, in general, have good control over their reactions during organizational change:

I believe I have good control over my behaviors during organizational change (3.78)

I believe I have good control over my actions during organizational change (3.83)
Contrarily, statements covered under “Non-Reactivity” were scored much lower by participants, suggesting that they have less control “in the moment” during disturbing situations, as reinforced by the following assertions:

I notice my feelings without having to react to them (3.55)

I consciously make time during disturbing situations to process what’s going on (3.43)

In difficult situations, I can pause without immediately reacting (3.67)

Fugate et al., (2008) found that when change is viewed negatively, it is often associated with reduced control and negative coping strategies. This dichotomy between the two aforementioned facets, is also evidenced in the Change Leader interviews, especially in the midst of a crisis. Clearly, there appears to be a strong case for practicing mindfulness to gain greater control and non-reactivity, particularly during stressful and disturbing situations arising from organizational change.

Positivity & Organizational Change

Also drawing from the literature, this category was constructed based on the premise that mindfulness can foster greater positivity, which is associated with well-being – the more often one experiences positive emotions, the better one is able to cope with stress. It is one of the strongest traits for coping with change and is also linked with resilience (Judge et al., 1999). Research indicates that Mindfulness promotes hope, optimism and positivity (Malinowski & Lim, 2015).

Again, this was the highest rated facet in the entire survey (4.11) in which participants indicated that they were generally positive and optimistic (4.21), can positively effect change (4.11) and are generally able to effectively deal with work-
related changes that impact them (4.01). One would think that, based on the literature and results in this section, the overall scores in the other categories would also be aligned with these higher scores, but that is not the case. Though participants were instructed to answer all questions in the context of organizational change, perhaps the use of the word generally in two out of the three statements, contradicted the instructions, thereby creating some confusion and could provide an explanation for this anomaly. Another reason, perhaps, is that participants did not want to self-report themselves as being “negative” in their social desire to be perceived as “positive”.

Generation Y Scoring

Also, of particular interest, was that Generation Y scores appeared to be consistently higher in 17 out of the 27 statements (particularly in the “Awareness” and “Observing” categories) when compared with Overall Averages and average scores of Change Leaders. For example, as depicted in Table 11 (Awareness), there are differences (.04 - .15) among the Overall Average scores (3.86) and Generation Y averages (3.97) when compared with Change Leaders’ scores (3.82). This is also noted when reviewing all other Eastern and Western mindfulness facet scores. However, when examining statements related to Organizational Change (see in particular “Positivity and Change” Table 18), Generation Y’s trailed behind the other two groups. This was the only category in the entire questionnaire in which Generation Ys scored lower (4.03 overall) than Change Leaders (4.07) and the Overall Average (4.11). As noted, this is not surprising, based on Wong et al., study (2008) which suggests that Generation Y’s (as self-reported), appear to be the least optimistic of the three generations. Future research
in this area may prove interesting in determining whether this is an irregularity or if this is a pattern with this particular generation.

**Change Leader Scoring**

Higgs and Rowland (2010) found that leaders who were more successful in leading change, demonstrated greater levels of self-awareness in the present. Likewise, leaders who failed at implementing change, focused on their egos and reinforced patterns that kept an organization “stuck”. Rowland and Higgs (2008) and Aviles and Dent (2015) all noted that interventions which enhanced self-awareness could improve a leader’s capacity to lead positive change. Furthermore, based on a review of the literature, Aviles and Dent (2015) speculated that mindfulness, through the benefits of increased cognition, could be extremely valuable when addressing the complexities and uncertainties associated with organizational change and perhaps, even improve its’ success rate.

This might be extremely valuable for the Change Leaders who participated in the quantitative portion of this research given that their mindfulness and change scores were generally lower than the other two groups (Overall Average and Generation Ys) with the largest difference between Generation Y scores. This trend is highlighted when examining the outcomes in the “Observing” facet (Table 15) as Change Leaders’ scores (3.76), when compared with the Overall Average (3.79), indicated a .20 difference when compared with Generation Y averages (3.96). One explanation could be that Change
Leaders are more vulnerable than others during organizational change as change success or failure rests upon them; as decision makers and leaders of change, their actions and behaviors will have a tremendous impact on the change. Having led and/or sponsored change, these individuals might be more self-critical of themselves and see greater opportunities for improvement, thus, resulting in a lower self-assessment scores. However, it is regrettable that a question related to Change Leaders’ success rate based on their most recent change was omitted from the quantitative portion of this research as it would have been interesting to triangulate these responses with the results from the Change Leader interviews; in the interviews 73% of the 15 Change Leaders’ self-reported that their “change success rate”, based on their change story, was a “5” (highest rating), while the remaining 27%, conveyed a high score of “4”. Perhaps these high scores can be attributed to participants’ recall bias, based on the age of their change stories (i.e. 4.4 years old before the time of the interview) and/or, as noted above, the desire to be viewed as a positive and capable change leader.

**Compassion & Empathy**

Mindfulness and Emotional Intelligence (EI) are positively correlated (Brown and Ryan, 2003) as meditation practices increase EI –in terms of greater self-awareness, self-management, social awareness and relationship management through heightened sensitivity, communication skills and awareness of others (Chaskalson, 2011; Hyland et al., 2015). Mindfulness has been shown to improve relationships through greater compassion (Hyland, et al., 2015; Good et al., 2016), enabling more trust, support and cooperation (Reb and Choi, 2014). Managers may be more attuned to employees’ non-
verbal communication and emotional states, helping them better understand employee needs (Good, et al., 2016).

This is especially important given that respondents in the quantitative portion of the survey noted that the following practices were the most critical when leading organizational change, of which the majority relate to EI, Compassion & Empathy:

- Communication – clear, frequent, repeated and transparent (43 responses)
- Listening (13 responses)
- Engaging/Involving Others in the Change – ensure buy-in and collaboration – (12)
- Reflection (6)
- Empathy/Respect for Others (4)
- Honesty (4)
- Patience (3)
- Positive Mindset (2)

Likewise, while some poignant stories were conveyed by Change Leaders (66%) in the qualitative portion of this research, there were also moments in which a lack of sensitivity to others or a need for control was demonstrated in the narratives. Based on research by Goleman, Boyatsis and McKee (2002), EI accounted for 85 to 90 percent of the difference in the success between superior leaders and those who were rated as average as mindful leaders create hope and demonstrate attention, empathy and compassion (Wells, 2015). Thus, it would be worthwhile for future research to examine compassion and empathy and its relationship to mindfulness and organizational change in more depth and quantifiable terms.

Stress, Anxiety and Uncertainty

As observed, particularly in the Change Leader interviews, there were numerous examples of stress, anxiety and uncertainty, which is not surprising, given that uncertainty and stress are closely associated with organizational change and can result in
anxiety and threats to one’s well-being (Judge et al., 1999; Chauvin et al., 2013; Smollan, 2015). As it has been shown that mindfulness can support leaders and individuals in reducing resistance to change through higher levels of acceptance, openness, and perceived control, it can also alleviate the stress associated with a loss of control (Hyland et al., 2015). Similarly, resilience, which allows one to bounce back after setbacks, can be cultivated through mindfulness practices (Stanley et al., 2011), which enable a more adaptive evaluation of stressful events through the use of positive coping responses, resulting in greater composure and perceived control (Grossman et al., 2004, Dane and Brummel, 2014; Gardhouse and Segal, 2015).

Likewise, Hunter and Chaskalson (2013) advocate mindfulness as a practical way to develop adaptive leaders and enhance well-being when facing challenging, stressful and changing environments. Challenges arise when a problem is new and unfamiliar. Previous solutions or frameworks cannot be used to understand or solve a unique challenge. If leaders draw on past habits and actions without exploring new options and categories, they and their teams will experience stress. Mindful leaders will recognize these patterns and change course as needed (Hunter and Chaskalson, 2013; By et al., 2015). As there were a significant number of change stories that demonstrated moments of stress, anxiety and uncertainty, it can be concluded from this research that mindfulness practices would benefit leaders and individuals during organizational change.

Summary of Quantitative and Qualitative Research

Based on both the quantitative and qualitative results of this research, people seem to have a natural capacity to be mindful, mildly mindful and/or not mindful at all. As with the quantitative data, in which “Non-Reactivity” and “Non-Judging/Acceptance”
were the lowest rated categories, there were also challenges amongst the interviewees with these two facets, despite high change success rates. In addition, there were standout examples among both meditators (e.g. KM and KC) and non-meditators (e.g. BB, DM, JW & JB) of mindful approaches and responses, as well as, mindless ones.

As 13.1% of US adults engage in mindfulness practices (Olano et al., 2015), it was unfortunate that a specific question related to this was omitted from the questionnaire. However, the overall scores in the Questionnaire suggest that, though most people do not practice mindfulness, there is a natural capacity to be mindful. This conclusion is based on overall scores which do not fall on either of the extreme ends of the Likert Scale, though it should be noted that “Positivity and Organizational Change” (4.11) and the Western version of Mindfulness (LMS14 – 3.95) were the most highly rated constructs. Likewise, as most scores fell in the middle of the spectrum there is, clearly, an opportunity for participants to cultivate greater mindfulness skills when encountering organizational change, particularly in the areas of “Non-Reactivity” (3.55 overall) and “Non-Judging/Acceptance” (3.27 overall), as well as, in some areas related to “Awareness” (greater attention, being present rather than on “autopilot” or distracted). This opinion is based upon examining overall scores in each category, as well as, by scanning the top five and bottom five statements and triangulating this information with the behavioral interview data. Numerous examples in the qualitative feedback demonstrated opportunities for participants to be less reactive and critical of themselves, of others and their environment and be more reflective and accepting of their thoughts and feelings, as opposed to worrying or experiencing anxiety, etc.
Key outcomes associated with mindfulness, noted in Chapter Two, include enhanced communications, compassion for others, listening, social relationships, and greater self-regulation. Thus, during stressful and uncertain periods of organizational change, cultivating mindfulness through a number of ways (e.g. meditation, Western applications, which will follow this sub-section), can be extremely valuable towards helping change leaders, individuals and organizations alike navigate and cope with the turbulent and ambiguous nature of organizational change. These practices have been found to enhance greater awareness, non-reactivity, non-judging/acceptance, novelty producing/seeking (innovation/creativity) and thus, can help reduce stress, anxiety and uncertainty. As mindfulness is linked with greater emotional intelligence, resilience and self-regulation of behaviors, it may also have a positive impact on well-being and satisfaction which, in turn, fosters greater employee engagement, support and relationships. Finally, as changes in demographics, technology and other global complexities continue to be “change challenges”, mindfulness can also foster diverse and novel strategies towards problem solving, decision making, with positive effects on change outcomes.

In summary, the most important findings of this research are that, though there is a natural capacity to be mindful, there is an opportunity to enhance one’s level of mindfulness, which can be particularly beneficial when coping (i.e. efforts one makes to deal with experiences that tax or exceed one’s resources – Folkman, et al., 2008) with the anxiety, stress, fear and uncertainty associated with organizational change. Other key outcomes, which were surprising, indicate that Change Leaders scored significantly lower than the Overall Averages yet Generation Ys scored consistently higher than the Overall
Averages except when related to “Positivity and Organizational Change”. The lowest rated areas included “Non-Reactivity” and “Non-Judging/Acceptance”; if improved, the research suggests that this may help Change Leaders become more adept at leading people through change (e.g. open to new ways of solving problems, more empathetic to people’s needs), as well as, helping people be more open to the change. Most importantly, mindfulness might be a powerful way to ensure positive change results, from all perspectives (leaders, people, organization) and perhaps even accelerate change.

**Limitations in this Research**

I have already mentioned a few “regrettable” items that were excluded in this research study. Other limitations included not being able to utilize one clear measurement instrument when assessing mindfulness. In addition, it appears *mindless* to me that mindfulness pioneers (Kabat-Zinn and Langer) are not collaborating in studies to truly understand the relationship between Eastern and Western mindfulness constructs – Do they overlap? Are they separate constructs? Are there additional facets? Given that there was not one cohesive mindfulness construct, facets for this particular research study were pulled from a few different instruments, including the Western version, as well as, from the literature, which could be also be a limitation to this research. In my opinion, I believe the convergence of these two constructs would be beneficial, given that both constructs share outcomes such as improved creativity and innovation. This is particularly beneficial during organizational change when new approaches are required to solve problems and make decisions. Additionally, as mentioned earlier, I did not include the Western facet of “Engagement”, as it appeared to be redundant with the Eastern
facets of “Self-Awareness” and “Observing”. I believe, an overlap already exists between these two constructs. Thus, having one construct, that bridges East and West, would provide a consistent measurement instrument for evaluating degrees of mindfulness, especially in terms of longitudinal studies.

Other limitations to this study include the use of purposive sample groups, as these did not appear to be diverse enough and representative of the general population, as well as, not adequately identifying meditators and non-meditators in the quantitative portion of this research. Additionally, the total number of actual respondents in the mixed-methods approach are relatively small (15 – qualitative interview portion; 74 for the quantitative survey; with 89 in total). As such, larger, broader (i.e. clinical, non-clinical, working professionals, meditators, non-meditators) and more diverse (i.e. gender, race, various cultures) populations beyond clinical settings (e.g. more data-driven organizational research) need to be considered in future studies, along with control and experimental groups. Measurements, which contain clear language that supports cultural, organizational, educational, meditator, non-meditators differences can also accelerate learning and insights in this field of study, as well as, more deeply examine the relationship between mindfulness and organizational change.

Finally, though the qualitative portion of this survey provided anecdotal insights, given the 4+ year average time from the start of participants’ change stories to the end, this is very concerning based on one’s inability to accurately recall details over this period of time. Additionally, the consistently high change success rate did not appear realistic to me; in retrospect, it would have been worthwhile to obtain one change success
and one change failure story from each participant to cross-compare results and stick with stories within a two-year period.

Practical Uses of Mindfulness

As previously mentioned, most corporate mindfulness programs have been adapted based on Kabat-Zinn’s Mindfulness-Based Stress Reduction (MBSR) program and have been re-designed for the workplace (Hyland et al., 2015). Based on the literature, the most common approach when developing organizational mindfulness programs is to apply traditional meditation practices (i.e. breathing and sitting still in a silent state of awareness) in shorter durations (10 minutes and more) and with reduced frequency than with an MBSR program.

Training venues typically include onsite or online programs and are usually voluntary. To reduce any perceived stigmas and to make it more palatable in the workplace, some programs are “positioned” as mental or concentrative training with grounded, scientific evidence used to validate the “business case” for mindfulness. Another corporate-oriented approach, focuses on integrating mindfulness practices with one’s daily work which may include mindful emails, mindful meetings, communications, breaks and mindful moments (Chaskalson, 2011, Reb and Choi, 2014).

Despite the presence of a few meditators within the qualitative group of my research, only one individual brought a mindful practice to the workplace which she shared with her team (“Boxed Breathing”). One draws a square, like a box and breathes in through his/her nose for a count of four. Then, one breathes out through his/her mouth for a count of four. This is done in four sets, like a box. This Change Leader uses it to help herself and her team manage stressful situations, ensuring one stays “focused,
grounded and not distracted.” According to this meditator, her team has found this technique to be helpful.

However, it is curious why the other few meditators in the interview group (who are at much larger, global companies than this one) did not indicate whether or not they introduced any mindful practices into their respective organizations, as leaders. Perhaps, as mentioned earlier, a stigma still exists or it may be viewed as a personal practice which they would not want to impose on others, given their organizational role.

Though the literature emphasizes workplace applications based on Eastern mindfulness practices, I believe that Western mindfulness approaches can also be applied in organizations undergoing change, particularly to support innovation and adaptability. For instance, a number of Langer’s cognitive flexibility interventions could be used to interrupt daily habits, routines and assumptions and “untrap” rigid mindsets (e.g. “this is the way we’ve always done it”), that open up new possibilities, facilitate unlearning, thereby, fostering new perspectives, contexts and ideas. This could be done through the use of framing and creating new categories of thinking (e.g. framing change as “dramatic” versus “business as usual”), emphasizing conditional thinking such as “could/might be” versus “must be” or “is”, underspecifying guidelines, roles, structures, policies or processes and making them less rigid and finite, and, finally, through experimentation, such as pilots that emphasize trial and error learning.

As I am currently assessing the practicality myself of introducing mindfulness in the workplace, I have begun by presenting a series of wellness seminars as one of many ways to support the well-being of our employees and help them cope with the dramatic
transformational change that my company is undergoing at this time. I have introduced a voluntary workshop for next week, facilitated by an outside resource, entitled, “Calm, Cool & Collected”. The objectives of this session are to a) understand the causes and symptoms of stress; b) introduce strategies that can help one cope with stress, including meditation; c) setting goals to reduce stress. We have reached the maximum number of attendees for this program, indicating an interest and a need for this topic. My hope is that some of attendees might be interested in continuing meditation once it is explained how one might benefit from it; for example, not only reducing stress and anxiety, but also, the benefits that it can bring to one in the workplace – a sense of calm and non-reactivity, greater focus and concentration, creativity, enhanced relationship and teamwork, problem solving and decision making, etc. some of which are also backed by scientific evidence as outlined in key research studies. I would continue this program using an outside resource and perhaps attempt another research study using a control and experimental group focused on mindfulness outcomes during organizational change.

From a Western perspective, I believe a number of Langer’s principles can easily be applied in organizations. I have already begun applying these concepts in my workplace, using a LEAN approach. One way I do this is by challenging team thinking and the notorious “that’s the way we’ve always done it” by asking, “why” five (5) times and using a conditional approach such as “what other options might there be to continuously improve”? I have also initiated and sponsored a pilot LEAN SWOT team in our warehouse/distribution center to quickly identify and address wastes (of time, motion, waiting, etc.) to improve efficiencies.
I also believe mindfulness can be applied when there is conflict. I’ve recently had to intervene with two individuals in which a series of emails shifted from a business issue to more personal jibes at one another (e.g. calling one delusional, a liar, etc.). I actually met with them individually and taught them the mindful email approach described in this paper and got them to agree that when the number of emails between them exceeded four, to stop and pick up the phone or meet in person to resolve the issue. I am also coaching another high-performing individual in managing his emotions with mindfulness by using the “(7 days of) Calm” application. He was reluctant to use this until one of his colleagues also mentioned they also used the app to help them focus and not let the small stuff get in their way.

More importantly, I also believe, that mindfulness can also help leaders be more effective during organizational change, particularly in terms of leading others – more inclusive, compassionate and aware of others; more adaptive in their thinking – greater innovative thinking related to problem solving and decision-making; and finally, in their overall demeanor – more calm, focused, resilient, non-reactive and more emotionally aware, enabling them to role model “doing the right thing” (i.e. be more ethical, respectful and humble of the effects that change can have on themselves and others).

Future Research

As mentioned earlier in “Limitations”, there is a strong need to integrate all relevant mindfulness facets (both East and West) into one cohesive construct. This will ensure that certain elements do not overlap and are not over- or under-represented. By standardizing the way in which mindfulness is measured, research studies, including longitudinal ones, can be conducted to obtain more accurate and consistent insights and
outcomes over time. Though a few studies indicate a positive correlation with job satisfaction, turnover, stress, etc., larger sample sizes and longitudinal studies should be executed for further confirmation. Contrary evidence should also be reviewed to further examine if mindfulness could have a detrimental effect on workplace change, particularly in terms over being “overly-accepting”. Finally, research outcomes can also hypothesize and stimulate new approaches to consider when examining mindfulness and organizational change, thereby, providing further direction for future studies.

Future research should also focus on the purpose and content of workplace programs. Can Aetna’s success be sustained and replicated in other organizations? And, what is the intent of mindfulness programs? Is it to help employees? Or, is it to maintain power and influence, suppress concerns, and/or avoid addressing issues that cause stressful and toxic problems in the first place?

Additionally, alternative metrics, other than self-reporting, should be more widespread and encouraged in future studies. Some examples include measuring response time (Jha, Krompinger, and Baime (2007)), sales performance, goal attainment, 360 feedback on change outcomes, productivity, number of errors/near misses, cost savings, and improved heart rate variability and cortisol levels (both used to measure anxiety), as in the case of Aetna. If at all possible, the use of experimental and control groups should also be used more rigorously in future studies to rule out other extraneous variables.

Finally, there are emerging areas of behavioral research related to economics (Kahneman, 2009, 2013, 2018), decision sciences and the neuroscience of the brain in
better understanding our reactions, responses and memories. For instance, Daniel Kahneman has examined the discrepancy with memory, which is described as a “storage of the past” (Kahneman, 2013) and how a memory of an experience and the actual experience are two different things. The “experiencing self” doesn’t make decisions. All the decisions are made by the “remembering self”. What is stored as a memory are changes, peak moments and endings. This is because “what matters is how bad were the threat and whether the story ended well….to decide whether to have that encounter again or to avoid it at all costs” (Kahneman, 2013). Most memories of everyday moments are forgotten and it is hard to tell what memory is real and what memory may have been reconstructed or fabricated to some extent (Kahneman, 2013).

In one study, it was found that memory and experience diverge for both pleasant and unpleasant emotions and separate processes are used for storing positive and negative events to memory – when unpleasant emotions are involved, the memory-experience gap is greater and more amplified, suggesting that negative events have a stronger impact than positive ones (Shatz, Stone, Kahneman, 2009). Based on this information, the qualitative research presented in this paper (change story interviews) may have been profoundly impacted due to the age of the story and the “remememng” versus “experiencing” self. In addition, mindfulness should be included in this future research to better understand how we process information and reframe and re-evaluate what we think and do.

Concluding Points

In summary, there is very limited research on the benefits of mindfulness and organizational change as it appears as if mindfulness is rarely applied during
organizational change. I hope the research presented in this Capstone is an impetus for future studies as it suggests that mindfulness practices could enable more effective organizational change and help people better cope with it. It is surprising to me that more studies do not exist at this juncture as the benefits are very clear in the literature, especially in clinical studies.

To address my initial research questions, there are practical ways to apply mindfulness during change that benefit employees, leaders and organizations. Though the Western applications have received less attention and traction than Eastern practices, the former appear to be more acceptable and natural to introduce into the workplace, particularly during organizational change. Though Eastern practices, such as meditation, appear to be offered primarily in larger organizations (based on the literature), the organizational culture should be conducive to support these practices. For instance, mindfulness through meditation could be initially introduced as part of a series of wellness programs to assist with overall well-being and managing stress due to organizational change. If there is interest and traction from participants to continue this practice based on individual outcomes, then discussions could take place regarding how mindfulness could be further applied at work during organizational change in a way that fits that particular company’s culture and organizational practices. One example might be practicing mindful emails or mindful moments during work time to regroup. Or, using the “boxed breathing” method as one Change Leader described in this research, during meetings to encourage reflection, creativity, and de-escalate potential conflict. Likewise, one may also choose to meditate outside of the workplace, viewing this as a more
personal and individual experience. Either way, if practices become more mainstream in organizations, then mindful emails and moments can be applied more broadly and become part of a company’s culture. Leadership support is critical in these efforts, though any practice should be on a voluntary basis.

In my opinion, stigmas still exist regarding mindfulness, particularly around the notion of meditating in the workplace, let alone using it as a secret weapon to assist with positive organizational change. Even though mindfulness has become more popular and in the news over the last five (5) years, I believe that some organizational cultures (e.g. innovative), would be more open and accepting of these practices than traditional ones.

It is my belief that the choice for change comes from within the individual – whether to accept the change, wait and see what happens, and/or resist it. What can assist individuals during change is that leaders assure participants some degree of control, autonomy and involvement in organizational change, with regular updates and “wins” on the change to reduce stress and uncertainty. This way, they have a “say” and a “stake” in the change which, likely will lead to greater acceptance, readiness and ownership in the success of change outcomes. Mindfulness practices, in my opinion, can change mindsets by helping individuals navigate through change in a more positive, productive, confident and engaging way. Likewise, it can help leaders lead change in compassionate, thoughtful and inclusive ways that can help organizational members more readily cope with it. I believe mindfulness has benefits in enhancing the human side of change, and as
humans, we tend to pay more attention to the head than to the heart. I hope that this inquiry will encourage others to further explore how mindfulness can unleash this human side of change.

REFERENCES


https://instituteformindfullleadership.org/


## APPENDIX A

### MINDFULNESS MEASUREMENT INSTRUMENTS

<table>
<thead>
<tr>
<th>Mindfulness Measurement Instruments</th>
<th>Strengths/Limitations</th>
<th>Statements in Each Instrument</th>
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<tbody>
<tr>
<td><strong>Overview &amp; Research Findings</strong></td>
<td><strong>Strengths:</strong></td>
<td>Statements: Common in both versions (14-items):</td>
</tr>
<tr>
<td>Freiburg Mindfulness Inventory (FMI) – 2001 – Buchheld, Grossman, &amp; Walach; 2006 – Walach, Buchheld, Buttenmuller, Kleinknecht, and Schmidt</td>
<td>High internal consistency, content and construct validity and reliability</td>
<td>I am open to the experience of the present moment</td>
</tr>
<tr>
<td></td>
<td>The short 14-item scale is sensitive to change and can also be used with subjects without previous meditation experience</td>
<td>I sense my body, whether eating, cooking, cleaning, or talking</td>
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<tr>
<td></td>
<td>Good tool to measure mindfulness with experienced meditators</td>
<td>When I notice an absence of mind, I gently return to the experience of the here and now</td>
</tr>
<tr>
<td></td>
<td><strong>Limitations:</strong></td>
<td>I am able to appreciate myself</td>
</tr>
<tr>
<td></td>
<td>The original 4 factor structure was found to be unstable in the validation study (from pre-retreat to post-meditation retreat) with many items interconnected; thus, the authors recommended viewing the construct holistically</td>
<td>I pay attention to what’s behind my actions</td>
</tr>
<tr>
<td></td>
<td>Small sample sizes with only Caucasians included (based on the location of studies - Freiburg, Germany); can the tool be used with other cultures?</td>
<td>I see my mistakes and difficulties without judging them</td>
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<tr>
<td></td>
<td>Language may be unclear and items</td>
<td>I feel connected to my experience in the here-and-now</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I accept unpleasant experiences</td>
</tr>
<tr>
<td></td>
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<td>I am friendly to myself when things go wrong</td>
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FMI was originally designed as a 30-item instrument for participants with meditation experience (whether a novice or not) on a 4-point Likert scale (1 – rarely to 4 – almost always). FMI measures mindfulness as a quasi-trait as respondents are required to refer to the items over a period of time. (Bergomi et al. 2013).

The original 4 factors measured were mindful presence, non-judgmental acceptance, openness to experiences and insight (Walach). Upon further analysis, the authors recommended looking at it as a one-dimensional construct with some inter-related facets.

A shorter version (2006) consisting of 14 original items was developed for the general population (non-meditators) which the authors view as “the core of the mindfulness construct.” (Walach, et. al. 2006).

**Findings:** The original study (using the 30-item
155 version and tested with 115 participants attending meditation retreats, demonstrated an increase in mindfulness post-retreat (increased scores) and differentiated experienced from beginner meditators.

A second study including 85 non-meditators, 54 meditators and 117 clinical patients, showed that subjects who meditate frequently have higher mindfulness scores than those who meditate less or not at all; psychological distress is lower in those with higher mindfulness scores.

Further studies found the 14-item version to be two-dimensional (“presence” – attention to the present moment and “acceptance” – non-judgmental attitude factors – (Bergomi et al. 2013, Qu et al., 2015).

<table>
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<tr>
<th>Mindful Attention Awareness Scale (MAAS) – 2003 – Brown &amp; Ryan</th>
<th>Strengths:</th>
</tr>
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<tbody>
<tr>
<td>A 15-item, quasi-trait based (Bergomi et al., 2013) instrument measuring Attention to and Awareness of present-moment experience in daily life. Uses a 6-point Likert scale (1 – almost always to 6 – almost never). All statements are reversed-scored items (i.e. the statements describe traits that are the opposite of being mindful).</td>
<td>Demonstrated good internal consistency and concurrent, construct, content, convergent, discriminant and predictive validity and high reliability</td>
</tr>
<tr>
<td>Dimensions: Awareness - is the background “radar” of consciousness, continually monitoring the inner and outer environment. One may be aware of stimuli without being at the center of attention. Attention - is a process of focusing conscious awareness, providing heightened sensitivity to a limited range of experience.</td>
<td>MAAS is one of 2 of the most desirable measures (the other is the PHLMS) currently available (valid and reliable) (Qu et al., 2015)</td>
</tr>
<tr>
<td>This has a unidimensional factor structure and yields a single total score (Baer et al., 2004).</td>
<td>Simple, easy to understand language</td>
</tr>
<tr>
<td>Findings: MAAS significantly positively correlated with openness to experience, and psychological well-being (positive affectivity, life satisfaction, optimism, self-esteem, etc.), emotional intelligence and self-regulation. It negatively correlated with rumination, worry and social anxiety. MAAS scores were significantly higher in</td>
<td>Large sample sizes (e.g. 1253 participants including students, general population and Zen meditators)</td>
</tr>
</tbody>
</table>

| Statements (Reversed-Scored): |
| --- | --- |
| I watch my feelings without getting lost in them | I could be experiencing some emotion and not be conscious of it until sometime later |
| In difficult situations, I can pause without immediately reacting | I break or spill things because of careless ness, not paying attention, or thinking of something else |
| I experience moments of inner peace and ease, even when things get hectic and stressful | I find it difficult to stay focused on what’s happening in the present |
| I am impatient with myself and with others | I tend to walk quickly to where I’m going without paying attention along the way |
| I am able to smile when I notice how I sometimes make life difficult | I tend not to notice feelings of physical tension or discomfort until they really grab my attention |
| I get so focused on the goal I... | I forget a person’s name almost as soon as I’ve been told it for the first time |
| Doesn’t cover other factors (e.g. acceptance, non-judgment (Walach et. al., 2006; Feldman et al., 2006) which are emphasized in clinical based interventions (Baer 2003; Feldman et al., 2006); though MAAS items may actually | It seems I am “running on automatic” without much awareness of what I’m doing |
| | I rush through activities without being really attentive to them |
| | I get so focused on the goal I... |
mindfulness practitioners than in general populations. Increases in MAAS scores were related to lower levels of mood disturbance and symptoms of stress before and after an MBSR intervention (Brown & Ryan, 2003; Baer et al., 2006).

In another study, differences between individuals with and without meditation experience were not evident. Most were beginners and the study suggested that beginner-level experience with meditation should not be presumed to be associated with greater mindfulness (MacKillop 2007).

<table>
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<tr>
<th>Kentucky Inventory of Mindfulness (KIMS) – 2004 – Baer, Smith and Allen</th>
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</table>
| This trait-based (Bergomi et al., 2013) instrument assesses mindfulness skills. It was developed as a way of determining effectiveness of Dialectical Behavioral Therapy (DBT- for borderline personality disorders (BPDs)); it encourages clients to accept themselves for who they are while working to change their behaviors/environments; also aligned with Mindfulness Based Stress Reduction (MBSR) and Mindfulness Based Cognitive Therapy (MBCT – designed to prevent depressive relapse; encourages participants to take a detached view of one’s thoughts).

Consists of 39 statements using a 5-point Likert scale (1 – never or very rarely true to 5 – very often or always true). **Assesses the general tendency to be mindful in daily life** (implying mindfulness can be cultivated) and does not require meditation experience. 24 of the 39 statements are also contained in Baer and colleagues FFMQ instrument below (Siegling et al. 2014).

**Covers 4 Dimensions:**

**Observing (12 items)** - noticing, observing or paying attention to a variety of internal/external phenomena, including bodily sensations, cognitions, emotions, sights, sounds, and smells.

**Strengths:**

Results confirmed a clear 4-factor structure; a multi-faceted construct helps improve one’s understanding of mindfulness and can clarify a person’s strengths/development skill areas (Baer et al., 2004)

High internal consistency, construct, content and discriminant validity and test-retest reliability

The FFMQ, KIMS and CAMS-R seem to be the best options for measuring the Eastern concept of Mindfulness (Siegling & Petrides, 2014)

Showed MAAS’s “act with awareness” was strongly related to KIMS but did not correlate with the “observe” scale

Language is understandable in populations without meditation experience

Studies were conducted with a variety of populations (clinical, general, regardless of meditation experience)

**Limitations:**

Larger and broader samples needed; was validated in student samples (N=420 in total; mostly Caucasian and females), a small clinical sample size.

<table>
<thead>
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<th>Statements: (See Appendix B)</th>
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| want to achieve that I lose touch with what I am doing right now to get there
| I do jobs or tasks automatically, without being aware of what I’m doing
| I find myself listening to someone with one ear, doing something else at the same time
| I drive places on “automatic pilot” and then wonder why I went there
| I find myself preoccupied with the future or the past
| I find myself doing things without paying attention
| I snack without being aware that I’m eating

<table>
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<tr>
<th>Reflect an “accepting awareness” (Cardaciotto et al., 2008)</th>
</tr>
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</table>
| Language is understandable in populations without meditation experience
| Studies were conducted with a variety of populations (clinical, general, regardless of meditation experience)
| Limitations: Larger and broader samples needed; was validated in student samples (N=420 in total; mostly Caucasian and females), a small clinical sample size.
Accepting (or allowing) without Judgment (9 items) – being accepting or non-evaluative about present moment experiences (i.e. refraining from applying labels such as good/bad, etc.) to allow reality to be as it is without attempts to avoid, escape or change it.

Describing (8 items) – a tendency or ability to put sensations, perceptions, thoughts, feelings, emotions, or experiences into words.

Act with Awareness (10 items) – includes focusing undivided attention on the current activity or avoiding automatic pilot. Some statements describe the absence of mindfulness and were reverse-scored. This includes all items under “Accept Without Judgment” as mindless states appear to be more common than mindful ones and the authors speculated it might be easier for respondents to recognize and report on them (Baer et al., 2004).

Note: In my opinion, this is similar to how Langer describes mindfulness though Baer does not reference her in this article.

Findings: Relationships with other constructs were significant – mindfulness scores are positively related with mental health and emotional intelligence. Scores showed the “Describe” scale showing the strongest positive correlation with emotional intelligence.

The “Observe” scale significantly correlated with meditation experience; the “Describe” scale was correlated with most of the other constructs examined. This suggested that the ability to apply words to one’s experiences (e.g. “labeling”) is strongly associated with good mental health.

Cognitive and Affective Mindfulness Scale (CAMS) – 2005 – Kumar, Feldman & Hayes (CAMS-R) - 2006 – Feldman, Hayes, Kumar, Greeson, & Laurenceau

The Original CAMS consisted of 18 items; CAMS-R (revised) is a trait-based instrument with 12 items that measures the following dimensions/elements on a 4-point scale (1- rarely/not at all to 4 – almost always):

- The ability to regulate Attention
- Present Focus
- Awareness of experience
- An attitude of Acceptance/Non-Judgment towards experience

(Note: these elements are based on Jon Kabat-

Strengths:

The original 18-item construct demonstrated concurrent validity and was sensitive to change. The 2nd model (12-items) demonstrated evidence of high construct, convergent and discriminant validity and an acceptable level of internal consistency which supported a total score vs. individual subscale scoring.

The FFMQ, KIMS and CAMS-R seem to be the best options for measuring the Eastern concept of Mindfulness (Siegling & Petrides, 2014)

Language is simple and brief and understandable; use is not restricted to

Statements: 10—item Version

It is easy for me to concentrate on what I am doing

I am preoccupied by the future (R) – Statement #2

I can tolerate emotional pain

I can accept things I cannot change

I can usually describe how I feel at the moment in considerable detail

I am easily distracted (R)
Zinn’s and Bishop’s et. al. definitions of mindfulness
CAMS-R is also presented in 10-items to address potential contamination with other constructs though Feldman notes, that there is a good case to retain those 2 items (items #2 & #7 – far right column).

Respondents are asked to rate whether items are generally true for them, thus treating mindfulness as a trait vs. a mindful state (Bergomi et al., 2013). Study supported using a total score vs. measuring each element/facet separately. Some items are reversed-scored.

Findings: CAMS-R results showed that higher mindfulness scores significantly correlated with lower distress scores and maladaptive behavior/mood repair (avoidance, thought suppression, worry, rumination and over-generalization). Higher scores were also associated with well-being, cognitive flexibility, emotional regulation and problem-solving.

Southampton Mindfulness Questionnaire (SMQ or MQ) – 2008 – Chadwick, Hember, Symes, Peters, Kuipers, & Dagnan

Originally called the Mindfulness Questionnaire (MQ) 2005-16 item trait-based instrument that measures mindfulness when unpleasant or distressing thoughts and images arising in clinical settings.

The authors note 4 facets of mindfulness including mindful observation, letting go of reacting, non-aversion and opening awareness to difficult experiences and non-judgment (acceptance)

Eight items are reversed-scored using a 7-point Likert scale (0 – strongly disagree to 6 – strongly agree).

Findings: Data indicated a single factor structure and a one-dimensional scale (total score). Significantly correlates with the MAAS and showed associations with affect (mood); able to distinguish meditators

Strongly correlated with total scores on the FMI and MAAS and also with “acceptance” in the FMI instrument

Limitations:
Though a four-factor structure was supported, primary loadings of specific items failed to replicate across samples (Feldman)
Researchers chose not to use Exploratory Factor Analysis (EFA) to revise items in CAMS resulting in items with lower factor loadings (Qu et al., 2015)
Reliability of each dimension was less than .71 (Qu et al., 2015). Failed to conduct concurrent validity and predictive validity analyses (Qu et al., 2015)
Reliance on undergraduate samples (though ethnically diverse with 548 students and another study with 212 students) rather than in the general community or individuals in the workplace

Strengths:
The SMQ had good internal consistency, adequate concurrent validity and reliability of all items together (though reliability of each dimension was missing)
The data supports SMQ as a tool in clinical practice and research to assess mindful responses to distressing thoughts and images
Significant correlation with the MAAS; significant positive correlation with mood ratings and increase in scores after an MBSR course (Baer et al., 2006)

Limitations:
Future research needs to assess sensitivity to change, test-retest reliability
Discriminant validity was not specified and inconsistent content validity (Qu et al., 2015)

Statements:

*Usually when I have distressing thoughts or images...*

I am preoccupied by the past (R) – Statement #7
It’s easy for me to keep track of my thoughts and feelings
I try to notice my thoughts without judging them
I am able to accept the thoughts and feelings I have
I am able to focus on the present moment
I am able to pay close attention to one thing for a long period of time
Among meditators, non-meditators and those with psychosis. Showed a significant difference between people meditating more than 2x per week and those meditating 2x week or less. Those with psychosis were less mindful than non-clinical participants (meditators or non-meditators). The degree of mindfulness was inversely related to intensity of delusional experience.

Results suggest that it is current meditation practice that matters versus time since first meditation experience.

Small sample size – 256 participants (non-clinical community of 134 of which 83 were meditators; 51 not) of which 122 were people with a psychosis

May be too specific for more general use – does not involve items relating to positive or neutral phenomenon; individuals who are less prone to distressing thoughts may have difficulty relating SMQ items to daily experience (Bergomi et al., 2013)

Some statements are double-barreled (e.g. thoughts and images)

Strengths:

This is one of 2 questionnaires most frequently used by Ellen Langer’s and Jon Kabat-Zinn’s research teams – the other is Langer’s LMS (Hart et al. 2013)

FFMQ provides the most comprehensive coverage of aspects of mindfulness for general population (Bergomi et al., 2013). Integrates and operationalizes 5 validated mindfulness questionnaires

The FFMQ, KIMS and CAMS-R seem to be the best options for measuring the Eastern concept of mindfulness (Siegling & Petrides, 2014). FFMQ seems to be the most representative of other mindfulness measures (Pirson, Langer et al., 2012)

High construct, convergent and discriminant validity and high reliability

Good internal consistency; questionnaires

Statements:

(See Appendix C)


FFMQ is a 39-item composite of 5 “Eastern” Questionnaires (KIMS (Baer et. al), FMI, MAAS, CAMS and SMQ), but excludes Langer’s LMS instrument. The original, combined 112 items were condensed based on those items with the strongest psychometric properties. A 5-point Likert scale was used (1 = never or very rarely true to 5 = very often or always true). It is a multidimensional trait measure of mindfulness (Bergomi et al., 2013).

FFMQ measures 5 Facets:

Observing – 8 items (noticing internal and external stimuli, emotions, thoughts sights and sounds)

Describing – 8 items (labeling experiences with words)

Acting with Awareness – 8 items (paying attention to the events of the moment - non-distraction, strength of the moment)

Strengths:

This is one of 2 questionnaires most frequently used by Ellen Langer’s and Jon Kabat-Zinn’s research teams – the other is Langer’s LMS (Hart et al. 2013)

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High construct, convergent and discriminant validity and high reliability

Good internal consistency; questionnaires
Non-Judging of Experience – 8 items (self-acceptance and non-evaluative perspective towards thoughts and emotions)

Non-Reactivity to Inner Experience – 7 items (not getting trapped in thoughts and feelings – allowing to let them go)

Some items are reverse-scored.

Original Findings: Describe, Act Aware, Non-Judging and Non-Reactivity can be considered facets of a broad mindfulness construct. Mindfulness facets are differentially related to other constructs and are most strongly related to Emotional Intelligence (EI). “Describe” is the most important in understanding a relationship with EI; “Act with Awareness” is central to relationships with disassociation and absent-mindedness.

“Observe” did not fit into the overarching mindfulness construct and was found to be positively correlated with several maladaptive constructs, including dissociation, absent-mindedness, psychological symptoms, and thought suppression. Its relationship with “Non-Judge” was positively correlated in those with meditation experience suggesting a 5-facet model (vs. 4) in samples with more meditation experience.

Several items using acceptance-related terms were excluded from the final version because they had modest and similar loadings on more than one factor. However, these findings suggest that “Non-Reactivity” and “Non-Judging” are useful facets and may be viewed as ways to operationalize acceptance (e.g. acceptance of an experience (feeling anxious) might include refraining from judgement or self-criticism).

2008 Findings: Support that meditation practice leads to increased mindfulness in daily life, which in turn facilitates well-being.

Four of the facets (all but “Acting with Awareness”) were significantly correlated with meditation experience; Meditators scored significantly higher in all facets than in other samples. However, “Acting with Awareness” was significantly correlated with the other facets and with psychological well-being and negatively associated with psychological distress. In meditators, higher levels of “Observing” were strongly associated with good adjustment (despite significantly positively correlated with each other, including the FMI.

Supports a multi-faceted mindfulness construct (at least 4 facets except “observing”) Although the facets are inter-correlated elements of a general mindfulness construct, each facet is substantially distinct from the other four (Baer et al., 2008, Bergomi et al., 2013)

Initial study included a sample of 615 undergraduates with little (20%) or no meditation (72%) experience; subsequent studies (N=307) included meditators, non-meditating students, and a general population inclusive of working professionals in mental health/other fields.

The 5-factor model was replicated in a sample of experienced meditators and supported the model’s good fit to the data (Baer et al., 2008)

FFMQ was found to positively and significantly correlate with self-regulation (Hart et al., 2013)

Limitations:

4 out of the 5 facets yielded the same factor structure as KIMS and excluded “non-identification with own experience” which is included in FMI and SMQ.

The above samples were largely Caucasian and included more females than males

Lengthy measurement tool

The merging of all items of different mindfulness scales produced an item pool in which some aspects of mindfulness may overlap (e.g. “describe” with “awareness”) and be over- or under- represented (Cardaciotto et al., 2008, Bergomi et al., 2013)

Data does not address changes in mindfulness facets occurring over 8 weeks of meditation practice as only 8% had meditated for <1 year

The additional scales of KIMS and FFMQ, though they may be associated with mindfulness, are not as integral to the construct as are awareness and acceptance, and their inclusion in a scale of mindfulness may be unnecessary (Cardaciotto et al., 2008)

Low content validity and moderate predictive
other constructs showing that self-focused attention can be maladaptive). This suggests that the tendency to notice internal and external stimuli is strongly related to well-being in meditators but not in others (2008).

Findings for the “Describing” facet are also consistent with neuroscience data suggesting that verbal labeling modulates brain responses to emotional stimuli in normal volunteers.

*Note: Non-meditation practices such as yoga, tai chi, chi gong and prayer were excluded from the 2008 research when participants described their meditation experience.*

<table>
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<tbody>
<tr>
<td>Has both a state and trait version. The original “state” version measures attainment of a mindfulness state before and after a 15-minute meditation exercise (over a short period of time (Baer et al., 2004; Lau et al., 2006). The trait version was developed for the general population and it’s relation with other trait-based mindfulness measures. <em>Note: The original items were changed from the “past” to the &quot;present&quot; tense (e.g. “I was curious to see what my mind was up to from moment to moment” -&gt; “I am curious to see what my mind is up to from moment to moment”).</em></td>
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<tr>
<td>Strengths:</td>
</tr>
<tr>
<td>Brief instrument that requires only 3 minutes to complete the questions</td>
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<tr>
<td>Demonstrated high Internal consistency and a two-factor structure (Lau et al., 2006; Andrei et al., 2016)</td>
</tr>
<tr>
<td>Construct validity was demonstrated by showing higher TMS scores following mindfulness training. Findings support convergent validity of this subscale and there were positive correlations between the trait-version and six other mindfulness measures (MAAS, FMI, KIMS, FMQ, CAMS-R and SMQ)</td>
</tr>
<tr>
<td>The TMS “Decenter” shared moderate to high correlations with other existing mindfulness measures support the construct validity of the TMS</td>
</tr>
<tr>
<td>TMS “Curiosity” and KIMS &amp; FFMQ “Observe” showed large correlations between one another. This was contrary to other instruments in which correlations were stronger with TMS “Decenter”. Thus, TMS “Curiosity” and FFMQ “Observe” could be tapping into a previously unassessed and additional aspect of mindfulness (Davis et al., 2009)</td>
</tr>
<tr>
<td>Assesses the decentered stance to experiences which, as a central aspect of mindful attention, is clearly underrepresented among other scales (Bergomi et al.,2013) The only scale that measures “state” mindfulness (Bergomi et al., 2013)</td>
</tr>
<tr>
<td>Large sample size for 2006 study – N = 390</td>
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| Statements: From Trait Version: |
| I experience myself as separate from changing thoughts and feelings |
| I am more concerned with being open to my experiences than controlling or changing them |
| I am curious about what I might learn about myself by taking notice of how I react to certain thoughts, feelings or sensations |
| I experience my thoughts more as events in my mind than as a necessarily accurate reflection of the way things “really” are |
| I am curious to see what my mind is up to from moment to moment |
| I am curious about each of my thoughts and feelings as they occur |
| I am receptive to observing unpleasant thoughts and feelings without interfering with them |
| I am more invested in just watching my experiences as they arise, than in figuring out what they could mean |
| I approach each experience by trying to accept it, no matter whether it was pleasant or |

| Validity (Qu et al., 2015) |
| Language may be interpreted differently between meditators and non-meditators |
| Some statements are double-barreled |
Decentering – awareness of experiences but impersonally identifying with thoughts or feelings as opposed to being overly absorbed and caught up or carried away by one’s internal experiences. (Lau et al., 2006; Davis et. al., 2009).

2006 Findings (State-version): TMS scores increased with a mindfulness meditation experience. “Decentering” scores predicted improvements in clinical outcomes. “Curiosity” and “Decentering” were significantly and positively correlated with reflective self-awareness and psychological mindedness. “Decentering” was positively correlated with openness to experience, and showed incremental validity in the prediction of stress and distress. Mindfulness meditation experience was related to Increased “Curiosity” scores.

2009 Findings (Trait-version) – Internal consistency reliability of the Trait TMS was comparable to that of the original version (which measured “state”). Scores for the “Decenter” were shown to increase with meditation experience.

Meditators had higher average scores on “Curiosity” than non-meditators. The “Curiosity” factor may assess a unique, new and important aspect of mindfulness.

*Meditators ranged from 1 month to 35 years with a mean of 8 years.

Philadelphia Mindfulness Scale (PHLMS) – 2008 – Cardaciotto, Herbert, Forman, Moltra, & Farrow

The scale is predominantly based on definitions of mindfulness proposed by Kabat-Zinn (1994) and Bishop et al., 2004; Bergomi et al., 2013). A quasi-trait tool (Bergomi 2013) consisting of 20 items.

Measures 2 Facets on a 5-point Likert scale: Present Moment Awareness (10 items) -assesses noticing or observing of internal/external experiences. Acceptance (10 items) - non-judging and open stance towards those experiences while refraining from attempts to escape or avoid them.

Note: Contrary to the MAAS, Cardaciotto et al. thought that one cannot assume “awareness” will always occur with an attitude of greater “acceptance” and, vice versa. Failure to exercise

Strengths:

PHLMS is one of 2 of the most desirable measures (the other is the MAAS) currently available (valid and reliable) (Qu et al., 2015) For general population assessments the PHLMS offers the advantages of a short but multidimensional scale (Bergomi et al., 2013).

Exploratory and confirmatory factor analyses support a two-factor solution; very good internal consistency for both subscales and relationships with other constructs

Results support the use of the PHLMS two components of mindfulness (Cardaciotto et al., 2008)

Positive correlations were found between the MAAS and the PHLMS “awareness” subscales. Though the MAAS was more strongly correlated with the PHLMS “acceptance”

Statements:

Awareness Sub-Scale (not reversed-scored)

I am aware of what thoughts are passing through my mind when talking with other people, I am aware of their facial and body expressions

When I shower, I am aware of how the water is running over my body

When I walk outside, I am aware of how the air feels against my face

When someone asks how I’m feeling, I can identify my

unpleasant
“acceptance” during greater “awareness” of unpleasant internal/external experiences may be detrimental to well-being. Thus, examining “acceptance” and “awareness” separately was important.

All items on the Acceptance subscale were reversed-scored; none were reversed on the Awareness subscale.

**Findings:** Did not indicate that “Acceptance” and “Awareness” could be examined independently. Higher “Awareness” scores were associated with higher mindful attention/awareness. Higher “Acceptance” scores were related to less thought suppression and rumination, depression, anxiety, etc.

Higher “Acceptance” scores were related to less thought suppression and rumination, depression, anxiety, etc.

The “Acceptance” sub-scale significantly correlated in a positive direction with acceptance/willingness and moderately positively correlated with happiness and quality of life instruments suggesting greater mental health.

Significant differences were found between non-clinical and clinical participants indicating PHLMS can distinguish between groups expected to differ in awareness and acceptance levels.

![Acceptance Sub-Scale (All reversed-scored)](attachment:acceptance_subscale.png)

**Limitations:**

More extensive research is required with larger clinical samples and validation with individuals who have meditation experience to further prove that PHLMS can distinguish between groups who are expected to differ in mindfulness levels.

The inclusion of solely reverse-scored items on the “Acceptance” subscale may be a limitation though statements reflecting less mindfulness may be easier for people to access and rate (Cardaciotto 2008)

“Acceptance” and “awareness” are conceptualized narrowly – it omits “acting with awareness”; the “acceptance” subscale contains items that are negatively formulated and capture experiential avoidance while positive acceptance, a compassionate stance towards oneself, non-reactivity and non-judgment facets are excluded (Bergomi et al., 2013)

Moderate predictive validity (Qu et al., 2015)

**Comprehensive Inventory of Mindfulness Experiences (CHIME) – 2013 – Bergomi, Tschacher, & Kupper**

**Strengths:**

Similar to Baer’s attempt to develop a multi-faceted questionnaire to cover a broad concept of mindfulness (though new statements were

**Statements:**

**2013 Version (28 statements)**

**Factor 1: Accepting, Non-Reactive and Insightful**
Reviewed 8 mindfulness instruments (e.g. CAMS, FMI, FFMQ, KIMS, MAAS, SMQ, PHLMS, & TMS). Rather than looking at non-overlapping, independent aspects of mindfulness, the authors identified 9 aspects of mindfulness in these instruments to attempt to describe all possible components of a mindfulness construct.

There were 36 original items with 4 statements developed per each of the 9 factors. After consultation with non-meditators, this was revised to 32, then to 28 statements which are measured on a 6-point Likert scale (6 - does not apply at all to 1 = applies fully); some are reversed-scored.

**The 9 Factors are:**

1. Observing, attending to experiences (OBSERVE);
2. Acting with awareness (ACTAWARE);
3. Non-judgment, acceptance of experiences (NONJUDGE);
4. Self-acceptance (SELFACCEPT);
5. Willingness and readiness to expose oneself to experiences, non-avoidance (NONAVOID);
6. Non-reactivity to experience (NONREACT);
7. Non-identification with own experiences (NONIDENTIFY);
8. Insightful understanding (INSIGHT);
9. Labeling, describing (DESCRIBE) (labeling was excluded in their studies of meditators vs. non).

**Findings:** Finding was 4 factors underlie the 9 that were assessed in general populations:

- Present Awareness (made up of observe & act aware)
- 2 factors captured a Mindful Orientation towards Experiences (accepting, nonreactive and insightful orientation and the other describing an open, non-avoidant presence)
- Describing of experience.

Results suggest a non-avoidant stance plays a key role in mindfulness. CHIME had a closer definition of “acceptance” with PHLMS than with other questionnaires. Showed CHIME provided incremental value over the FFMQ as it includes self-acceptance, insightful orientation, non-identification with inner experiences and non-avoidance (Bergomi contends these were not included in the FFMQ).

8 of the 9 factors showed a high degree of interconnectedness while “Describing” appeared to be distinct and may be a “capacity” related to mindfulness as it’s often considered a key component of mindfulness meditation. The relationship between these factors was influenced developed which were previously not measured.

Findings suggest a stable solution over different populations but the results also suggest that the relationships between the factors may vary based on mindfulness meditation experience. This could explain why some findings support a multi-faceted vs. one-dimensional structure.

Instrument can also be used with non-meditators

**Limitations:**

Small sample sizes primarily Caucasians - 313 participants (128 from general pop); 185 MBSR participants completed the questionnaire at the beginning and end of an 8-week MBSR program – more studies are needed.

Study took place in Switzerland; German-version used – is the instrument culturally adaptable?

Unclear if the instrument is reliable and valid; more studies are needed.

Bergomi contends that Baer’s study yielded 5 factors and that some aspects of these factors may have been represented to a greater extent than others in terms of quantity of items. The same could be said about the CHIME. Rather than rely on using the same statements from the 8 existing constructs, the authors created new items/statements to avoid a biased selection of items; this lead to a potentially new construct creating new and different meanings and categories with a varied number of statements per factor (not living up to the original attempt of 4 statements per factor).

Double-barreled Questions (2013) – Example:
- I tend to suppress unpleasant feelings and thoughts
- I think that my feelings are bad or inappropriate and that I should not have them
- I can distance myself from my thoughts and observe them from another angle

Overlap factors/dimensions - e.g. “I observe how my thoughts and feelings come and go” (Non-identification under Factor 4 – Open, non-avoidance orientation). This could be confused with the OBSERVE factor/dimension in CHIME and with the other constructs.

**Orientation**

SELFACCEPT: I can accept myself as I am.
NONJUDGE: I believe my thoughts are abnormal and tell myself that I should not be thinking like that.
NONREACT: I can inwardly stay calm and serene.
NONAVOID: I judge my thoughts and feelings as being good or bad.
NONIDENTIFY: I can distance myself from my thoughts and observe them from another angle.
INSIGHT: I need to smile when I notice how I sometimes see things as more difficult than they actually are.
INSIGHT: I can consider things from different perspectives.
NONAVOID: I can confront unpleasant situations as well.
NONREACT: I notice my feelings, without having to immediately put them into action.

**Factor 2: Present Awareness**

OBSERVE: When I wash my hands or brush my teeth I notice my movements and the sensations occurring in my body.
OBSERVE: During daily activities as well, I pay attention to the sensations in my body.
ACTAWARE: While I am doing something I pay attention to how I do it.
OBSERVE: When I eat, I...
by the degree of meditation experience. The 4 factors were even more interconnected among mediators.

A 2015 study (Bergomi et al.) was conducted (683 participants of which 183 currently practiced meditation regularly). Results suggest that mindfulness is associated with continued meditation practice in the present, rather than accumulated practice over years.

No differences in meditation techniques that were used could be established  

Note: In the 2013 and 2015 research, meditation was broadly defined to include yoga, autogenic training, progressive muscle and relaxation techniques, Zen & Vipassana meditation, mantra repetition, walking meditation, Christian spiritual exercises, body scan, Qigong and Tai Chi.

consciously pay attention to the taste of the food

ACTAWARE: I find it difficult to pay attention to the “here and now” and to concentrate on that which currently happens

ACTAWARE: I rush through my activities without paying much attention to them

Factor 3: Describing of Experiences

DESCRIBE: I have trouble finding the right words to express my feelings

DESCRIBE: I find it hard to put my thoughts into words

DESCRIBE: I can find the right words that describe my feelings

DESCRIBE: I am good at verbally conveying my ideas, expectancies and concerns

Factor 4: Open, Non-Avoidant Orientation

NONAVOID: When I am in pain, I try to avoid the sensation as much as possible

NONAVOID: I tend to suppress unpleasant feelings and thoughts

NONAVOID: I can dwell on unpleasant feelings and sensations

NONIDENTIFY: I observe how my thoughts and feelings come and go

OBSERVE: I consciously notice everyday sounds, for example, the mowing of the lawn, the ticking of clocks or the sound of a keyboard (2015 version: I notice sounds in my environment, such as birds chirping or cars passing)

Note – “Describing” has been deleted from the 2015 version; Also, statements have been revised and newly-created since the 2013 version.

For example:

2015 Inner Awareness: “I clearly notice changes in my body, such as quicker or slower breathing” (2013: OBSERVE: During daily activities as well,
I pay attention to the sensations in my body – (Factor #1 above)

2015 Acceptance: “Even when I make a big mistake, I treat myself with understanding” (2013 version: SELF ACCEPT: “Even when I see my flaws, I can still be friendly towards myself” – (Factor #1 above)

<table>
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<tr>
<th>Langer Mindfulness Scale (LMS (original) &amp; LMS14) – 2012 – Pirson, Langer, Bodnar &amp; Zilcha-Mano</th>
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<tbody>
<tr>
<td><strong>Trait-based</strong> instrument that measures a more general mindfulness capability (Pirson, Langer et al., 2013). Originally 21 items, it was revised to <strong>14-items</strong> that measure mindfulness from a Western socio-cognitive perspective on a 1 (strongly disagree) to 7 point Likert scale (1 = strongly disagree to 7 = strongly agree). <strong>Some are reversed-scored.</strong></td>
</tr>
<tr>
<td><em><em>The LMS 14 has one overall score based on 3</em> dimensions:</em>*</td>
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<tr>
<td><strong>Novelty Seeking (NS)</strong> – having an open and curious orientation to one’s environment; high scorers are likely to perceive each situation as an opportunity to learn something new (Stanley et al., 2011)</td>
</tr>
<tr>
<td><strong>Novelty Producing (NP)</strong> – the capacity to construct new meanings or experiences; high scorers are likely to generate new information in order to learn more about the current situation (Stanley et al., 2011)</td>
</tr>
<tr>
<td><strong>Engagement (E)</strong> – being aware of changes that take place in the environment; high scorers are likely to notice more details about his/her specific relationship with the environment (Stanley et al., 2011)</td>
</tr>
<tr>
<td>(*Flexibility – the tendency to view experiences from multiple perspectives and to adjust one’s behavior, in which high scorers are likely to welcome a changing environment rather than resist it (Stanley et al., 2011), appeared in 21-item version but was subsequently eliminated in the 14-item version as it was determined not to be separate but an inter-connected and over-arching concept – Pirson, Langer et al., 2012)</td>
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<tr>
<td><strong>Findings:</strong> The LMS14 measure of socio-cognitive mindfulness demonstrated convergent and discriminant validity (when compared to Eastern mindfulness measures) and is a relevant</td>
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<tr>
<th>Strengths (2012 version – LMS14):</th>
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<tr>
<td>This is one of 2 questionnaires (FFMQ) most frequently used by Ellen Langer’s and Jon Kabat-Zinn’s research teams (Hart et al., 2013)</td>
</tr>
<tr>
<td>Large overall sample size (4,345 responses from students, faculty in university settings, participants from diverse occupations and with varying educational levels). Additionally, to ensure cultural stability, 108 pregnant Israeli women and 152 Israeli students were part of the sample. The tri-dimensional factor structure was replicated across 5 separate samples showing convergent and discriminant validity. (Pirson, Langer et al., 2012)</td>
</tr>
<tr>
<td>Suggests the LMS is a reliable scale and valid measure of mindfulness with important implications for both individuals and organizations. (Pirson, Langer et al., 2012)</td>
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<tr>
<td>Studies are based on multi-wave longitudinal data though authors cannot claim causality</td>
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<tr>
<td>Most measures usually follow the Eastern approach of mindfulness and are often tested within a clinical setting but rarely within social and organizational contexts (Pirson, Langer et al., 2012)</td>
</tr>
<tr>
<td>All of Langer’s studies showed increases in mindfulness following her brief interventions (Hart et al., 2013)</td>
</tr>
<tr>
<td>LMS14 was significantly, yet moderately related to MAAS &amp; FFMQ. “Novelty producing” and “engagement” were moderately significantly correlated with the FFMQ total score and also significantly correlated with FFMQ’s “describe” subscale; Engagement also significantly correlated with FFMQ’s “Non-Judgement” (Pirson, Langer et al., 2012)</td>
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<tr>
<th>Statements:</th>
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<tr>
<td><strong>LMS 14</strong></td>
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<tr>
<td>I like to investigate things (NS)</td>
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<tr>
<td>I generate few novel ideas (NP)</td>
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<tr>
<td>I make many novel contributions (NP)</td>
</tr>
<tr>
<td>I seldom notice what other people are up to (E)</td>
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<tr>
<td>I avoid thought provoking conversations (E)</td>
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<tr>
<td>I am very creative (NP)</td>
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<tr>
<td>I am very curious (NS)</td>
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<tr>
<td>I try to think of new ways of doing things (NS)</td>
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<tr>
<td>I am rarely aware of changes (E)</td>
</tr>
<tr>
<td>I like to be challenged intellectually (NS)</td>
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<tr>
<td>I find it easy to create new and effective ideas (NP)</td>
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<tr>
<td>I am rarely alert to new developments (E)</td>
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<tr>
<td>I like to figure out how things work (NS)</td>
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<tr>
<td>I am not an original thinker (NP)</td>
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complement (Western-based) to the Eastern-based measures of mindfulness in a non-meditative way. It can also serve as an extension of existing measures as it connects mindfulness with Western traditions and contexts (not just clinical or medical settings but also socially and organizationally) (Pirson, Langer et al., 2012).

A positive association was found between LMS scores and the ability to see events from multiple viewpoints, openness to experiences and creativity (Langer 2004, Hart et al. 2013).

LMS significantly correlated with psychological (including self-esteem and life satisfaction), physical (flexibility and strength) and social/organizational (positive relations with others, job satisfaction) well-being.

Organizational outcomes can be assessed using the LMS14 as mindfulness interventions may help organizations be more creative, learn more effectively and make better decisions for all stakeholders (Pirson, Langer et al., 2012).

It negatively correlated with attachment anxiety, the personal need for structure, neuroticism.

A comparison of the LMS and LMS14 and the FFMQ (Baer et al., 2006, 2008) revealed that the FFMQ is more comprehensive than the LMS/LMS14 as they seem to focus on “openness” which is included in the FFMQ’s “observing” and “acting with awareness”. This suggests that Langer’s construct is a substructure of Kabat-Zinn’s (Western) mindfulness model (Hart et al., 2013). 

Limitations:

Lack of standard operational definition and alignment of East and West mindfulness concepts inhibits the development of one measure

Limited research in organizational settings – more is needed

Strong correlation with Openness from the Big Five Inventory (Neuroticism, Extraversion, Openness, Agreeableness, Conscientiousness) differing from Western version in which Openness correlates the least and Extraversion and Conscientiousness correlate the most suggesting the LMS measures a different dimension of mindfulness (Siegling and Petrides, 2014)

Only the LMS14 “engagement” subscale captures mindful attention in the current moment. The three other subscales—Novelty Seeking, etc. appear to capture the cognitive attributes that underlie creative thinking (Hart et al., 2013)
APPENDIX B

THE KENTUCKY INVENTORY OF MINDFULNES SKILLS (KIMS)
Ruth Baer

Observe Items
• I notice changes in my body, such as whether my breathing slows down or speeds up
• I pay attention to whether my muscles are tense or relaxed
• When I’m walking, I deliberately notice the sensation of my body moving
• When I take a shower or a bath, I stay alert to the sensations of water on my body
• I notice how foods and drinks affect my thoughts, bodily sensation, and emotions
• I pay attention to sensations, such as the wind in my hair or sun on my face
• I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing
• I notice the smells and aromas of things
• I intentionally stay aware of my feelings
• I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow
• I pay attention to how my emotions affect my thoughts and behavior
• I notice when my moods begin to change

Describe Items
• I’m good at finding the words to describe my feelings
• I can easily put my beliefs, opinions, and expectations into words
• I’m good at thinking of words to express my perceptions, such as how things taste, smell, or sound
• It’s hard for me to find the words to describe what I’m thinking (R)
• I have trouble thinking of the right words to express how I feel about things (R)
• When I have a sensation in my body, it’s difficult for me to describe it because I can’t find the right words (R)
• Even when I’m feeling terribly upset, I can find a way to put it into words
• My natural tendency is to put my experiences into words

Act with Awareness Items
• When I do things, my mind wanders off and I’m easily distracted (R)
• When I’m doing something, I’m only focused on what I’m doing, nothing else
• I drive on “automatic pilot” without paying attention to what I’m doing (R)
• When I’m reading, I focus all my attention on what I’m reading
• When I do things, I get totally wrapped up in them and don’t think about anything else
• I don’t pay attention to what I’m doing because I’m daydreaming, worrying, or otherwise distracted (R)
• When I’m doing chores, such as cleaning or laundry, I tend to daydream or think of other things (R)
• I tend to do several things at once rather than focusing on one thing at a time (R)
• When I’m working on something, part of my mind is occupied with other topics, such as what I’ll be doing later, or things I’d rather be doing (R)
• I get completely absorbed in what I’m doing, so that all my attention is focused on it

Accept Without Judgment Items
• I criticize myself for having irrational or inappropriate emotions (R)
• I tend to evaluate whether my perceptions are right or wrong (R)
• I tell myself that I shouldn’t be feeling the way I’m feeling (R)
• I believe some of my thoughts are abnormal or bad and I shouldn’t think that way (R)
• I make judgments about whether my thoughts are good or bad (R)
• I tend to make judgments about how worthwhile or worthless my experiences are (R)
• I tell myself that I shouldn’t be thinking the way I’m thinking (R)
• I think some of my emotions are bad or inappropriate and I shouldn’t feel them (R)
Factor 1: Non-Reactivity to Inner Experience
*FMI 18: I perceive my feelings and emotions without having to react to them
*FMI 25: I watch my feelings without getting lost in them
*FMI 26: In difficult situations, I can pause without immediately reacting
*MQ  1: Usually when I have distressing thoughts or images, I am able just to notice them without reacting
*MQ  4: Usually when I have distressing thoughts or images, I feel calm soon after
*MQ  9: Usually when I have distressing thoughts or images, I “step back” and am aware of the thought or image without getting taken over by it
*MQ 10: Usually when I have distressing thoughts or images, I just notice them and let them go
Factor 2: Observing/Noticing/Attending to Sensations/Perceptions/Thoughts/Feelings
  FMI 3: I sense my body, whether eating, cooking, cleaning or talking
  FMI 6: I notice how my emotions express themselves through my body
  FMI 7: I remain present with sensations and feelings even when they are unpleasant or painful
  FMI 20: I examine pleasant as well as unpleasant sensations and perceptions
  KIMS 1: I notice changes in my body, such as whether my breathing slows down or speeds up
  KIMS 5: I pay attention to whether my muscles are tense or relaxed
  *KIMS 9: When I’m walking, I deliberately notice the sensations of my body moving
  *KIMS 13: When I take a shower or a bath, I stay alert to the sensations of water on my body
  *KIMS 17: I notice how foods and drinks affect my thoughts, bodily sensations, and emotions
  *KIMS 21: I pay attention to sensations, such as the wind in my hair or sun on my face
  *KIMS 25: I pay attention to sounds, such as clocks ticking, birds chirping or cars passing
  *KIMS 29: I notice the smells and aromas of things
  KIMS 30: I intentionally stay aware of my feelings
  *KIMS 33: I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow
  *KIMS 37: I pay attention to how my emotions affect my thoughts and behavior

Factor 3: Acting with Awareness/Automatic Pilot/Concentration/Non-distra ction
  MAAS 2: I break or spill things because of carelessness, not paying attention, or thinking of something else (R)
  *MAAS 3: I find it difficult to stay focused on what’s happening in the present (R)
  *MAAS 7: It seems I am “running on automatic” without much awareness of what I’m doing (R)
  *MAAS 8: I rush through activities without being really attentive to them (R)
  MAAS 9: I get so focused on the goal I want to achieve that I lost touch with what I am doing right now to get there (R)
  *MAAS 10: I do jobs or tasks automatically, without being aware of what I’m doing (R)
  MAAS 11: I find myself listening to someone with one ear, doing something else at the same time (R)
  MAAS 12: I drive places on “automatic pilot” and then wonder why I went there (R)
  MAAS 13: I find myself preoccupied with the future or the past (R)
  *MAAS 14: I find myself doing things without paying attention (R)
  MAAS 15: I snack without being aware that I’m eating (R)
  FMI 9: I easily get lost in my thoughts and feelings
  *KIMS 3: When I do things, my mind wanders off and I’m easily distracted (R)
  KIMS 11: I drive on “automatic pilot” without paying attention to what I’m doing (R)
*KIMS 23: I don’t pay attention to what I’m doing because I’m daydreaming, worrying, or otherwise distracted (R)

KIMS 27: When I’m doing chores, such as cleaning or laundry, I tend to daydream or think of other things (R)

KIMS 31: I tend to do several things at once rather than focusing on one thing at a time (R)

KIMS 35: When I’m working on something, part of my mind is occupied with other things, such as what I’ll be doing later or things I’d rather be doing (R)

CAMS 1: It is easy for me to concentrate on what I’m doing

CAMS 6: I am easily distracted (R)

*CAM 12: I am able to pay close attention to one thing for a long period of time

Factor 4: Describing/Labeling with Words

*KIMS 2: I’m good at finding the words to describe my feelings

*KIMS 6: I can easily put my beliefs, opinions, and expectations into words

KIMS 10: I’m good at thinking of words to express my perceptions, such as how things taste, smell, or sound

*KIMS 14: It’s hard for me to find the words to describe what I’m thinking (R)

*KIMS 18: I have trouble thinking of the right words to express how I feel about things (R)

*KIMS 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 (R)

*KIMS 26: Even when I’m feeling terribly upset, I can find a way to put it into words

*KIMS 34: My natural tendency is to put my experiences into words

*CAMS 5: I can usually describe how I feel at the moment in considerable detail

*CAMS 8: It’s easy for me to keep track of my thoughts and feelings

Factor 5: Non-Judging of Experience

*KIMS 4: I criticize myself for having irrational or inappropriate emotions (R)

*KIMS 8: I tend to evaluate whether my perceptions are right or wrong (R)

*KIMS 12: I tell myself that I shouldn’t be feeling the way I’m feeling (R)

*KIMS 16: I believe some of my thoughts are abnormal or bad and I shouldn’t think that way (R)

*KIMS 20: I make judgments about whether my thoughts are good or bad (R)

*KIMS 24: I tend to make judgments about how worthwhile or worthless my experiences are (R)

*KIMS 28: I tell myself that I shouldn’t be thinking the way I’m thinking (R)

*KIMS 32: I think some of my emotions are bad or inappropriate and I shouldn’t feel them (R)

*KIMS 36: I disapprove of myself when I have irrational ideas (R)

MQ 6: Usually when I have distressing thoughts or images, I get angry that this happens to me

*MQ 8: Usually when I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about
APPENDIX D

FIVE KEY PRINCIPLES OF HIGH RELIABILITY ORGANIZATIONS
(Gartner, 2013; Becke, 2014; Aviles and Dent, 2015)

1. Preoccupation with Failure – avoiding automatic processing; detecting errors and near misses and viewing this as a source of organizational learning (e.g. collective reflection (e.g. experimental pilots)

2. Reluctance to Simplify Interpretations – seeing as much as possible; accounting for various viewpoints and integrating with skepticism to reduce blind spots;
deviations from what is routine can be noticed before they are amplified and become serious or catastrophic

3. Sensitivity to Operations – attentive to the front lines; involving and appreciating employees’ knowledge to make continuous adjustments that prevent errors and anticipate or identify unforeseen events (e.g. participative change approaches)

4. Commitment to Resilience – Recovering after a severe crisis or event and improving the organization’s ability to cope with future risks; keeping errors small and detecting, containing and bouncing back from errors without being disabled by them

5. Deference to Expertise – Fluidity in decision making with authority designated to those who have the expertise regardless of organizational rank during crises or emergencies; drawing on employee knowledge as a coping resource

APPENDIX E

MINDFUL ORGANIZATIONAL CHANGE QUESTIONNAIRE

Whether leading, managing, and/or impacted by change

I am currently working on my Master’s thesis as part of the Organizational Dynamics Program in the School of Arts & Sciences at the University of Pennsylvania. Your participation in a brief 10-15 minute survey will be extremely helpful in my research regarding Practical Uses of Mindfulness during Organizational Change.
Please rate each of the following statements with the rating that best describes your response when involved with organizational change in the workplace – whether you are leading the change, participating in it and/or directly impacted by it.

Your information will be kept confidential and consolidated to preserve anonymity. Only cumulative findings and key themes and trends will be reported as part of this research. Please complete the survey by XXX date. Thanks in advance for your time and participation.
Survey Statements

**In the course of my job during workplace organizational change…..**

<table>
<thead>
<tr>
<th>Survey Statements</th>
<th>Never or Very Rarely True (1)</th>
<th>Rarely True (2)</th>
<th>Sometimes True (3)</th>
<th>Often True (4)</th>
<th>Very Often or Always True (5)</th>
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<tbody>
<tr>
<td>I can easily put my thoughts into words</td>
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<td>I am able to pay close attention to one thing for a long period of time</td>
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<td>I avoid telling myself that I should have thought differently</td>
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<td>When interacting with others, I seek to understand before I evaluate</td>
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<td>I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there</td>
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<td>I believe I have good control over my behaviors during organizational change</td>
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<td>I am generally positive and optimistic</td>
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<td>I notice my feelings and emotions without having to react to them</td>
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<td>At any moment, I am conscious of the choices I make</td>
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<td>I find myself preoccupied with the future or the past</td>
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<td>I consciously make time during disturbing situations to process what’s going on</td>
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<td>I pay attention to changes in my work environment (i.e. visual, verbal cues, trends) that may have meaning during organizational change</td>
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<td>Even when I’m feeling terribly upset, I can find a way to put it into words</td>
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<td>I find myself listening to someone with one ear while doing something else at the same time</td>
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<td>I find it difficult to stay focused on what’s happening in the present</td>
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<td>It seems I am “running on automatic” without much awareness of what I’m doing</td>
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<td>I believe I can positively effect change</td>
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<td>I am generally able to effectively deal with work-related changes that come my way</td>
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<td>I am sensitive to non-verbal cues when interacting with others</td>
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<td>When faced with disturbing situations or obstructions during change, I see these as helpful resources that can lead to insights rather than barriers towards progress</td>
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<td>In difficult situations, I can pause without</td>
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immediately reacting
I believe I have good control over my actions during organizational change
I like to investigate things
I avoid telling myself that I should have responded differently
I intentionally stay aware of my feelings and how they affect my behaviors and actions
I make many novel (new, different, original) contributions

**Other Related Questions:**

In my Work Experience: *(check as many that apply)*

- ___ I have sponsored organizational change
- ___ I have led change
- ___ I have managed and implemented change
- ___ I have been directly impacted by change

What 3 adjectives come to mind when you hear the work “mindfulness”?

List 2 Key Practices that are critical when Leading/During Organizational Change?

**Background Information:**

Current Job Title:
Current Company Size: *(check one)*

| 10 people or less | 11-50 | 51-250 | 251-500 | 501-1000 | 1000+ |

Total # of Years of Work Experience:
Total # of Years of Management Experience:

Gender: ___ Female           ___ Male
Race: ___ Hispanic/Latino   ___ White/Caucasian   ___ Black/African American ___ Asian/Pacific Islander ___ Other
Nationality:
Age/Date of Birth Ranges: *(check one)*


Highest Education Level: ___ High School/GED ___ Some College ___ Bachelor’s Degree ___ Some Post-Graduate Work ___ Master’s Degree/MBA ___ PhD, JD, MD

Industry: *(circle one)*

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<tr>
<td>Hotel &amp; Entertainment</td>
<td>Machinery &amp; Equipment</td>
<td>Media &amp; Publishing</td>
<td>Technology</td>
<td>Telecommunications</td>
<td>Transportation</td>
<td>Utilities</td>
<td>Not-For-Profit:</td>
<td>Other: <em>(Please indicate)</em></td>
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APPENDIX F

ORIGINS OF STATEMENTS USED IN THE MINDFUL ORGANIZATIONAL CHANGE QUESTIONNAIRE

Rating Scale (5-point Likert Scale (based on Baer’s FFMQ)
1) Never or Very Rarely True 2) Rarely True 3) Sometimes True 4) Often True 5) Very Often or Always True

Dimensions and Statements

Facet/Dimension: Describing (2 statements)
Statement: I can easily put my thoughts into words (extracted from FFMQ but modified to combine a few statements)
Source(s)
- FFMQ (final version – I can easily put my beliefs, opinions, and expectations into words & It’s hard for me to find the words to describe what I’m thinking) & KIMS (a subset of FFMQ - Baer)
- Rowland: I am able to put into words exactly what is going on
Statement: Even when I’m feeling terribly upset, I can find a way to put it into words (extracted from FFMQ & KIMS verbatim)
Source(s)
- FFMQ (final version) & KIMS (Baer)
- Rowland: Same without the word “terribly”
- PHLMS: When someone asks how I’m feeling, I can identify my emotions easily (under the “Awareness” facet on the PHLMS)

Facet/Dimension: Acting with Awareness (9 statements)
Statement: I am able to pay close attention to one thing for a long period of time (extracted from FFMQ & CAMs verbatim)
Source(s)
- FFMQ (final version)
- CAMS - verbatim
- Rowland – verbatim
Statement Reversed Scored: I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there (extracted from FFMQ & MAAS both verbatim)
Source(s)
- FFMQ (final version)
- MAAS- verbatim
- Rowland – verbatim
Statement: At any moment, I am conscious of the choices I make (modified Rowland’s statement and implied in multiple statements on the FFMQ)
Source(s)
- Rowland - At any moment, I am conscious of my options and the choices I make
Statement Reversed Scored: I find myself preoccupied with the future or the past (extracted from FFMQ & MAAS both verbatim)
Source(s)
- FFMQ (not used in final version)
- MAAS - verbatim
- CAMS – I am preoccupied by the past; I am preoccupied by the future
- Rowland – verbatim

Statement Reversed Scored: I find myself listening to someone with one ear while doing something else at the same time (extracted from FFMQ & MAAS verbatim)
Source(s)
- FFMQ (not used in final version)
- MAAS

Statement Reversed Scored: I find it difficult to stay focused on what’s happening in the present (extracted from FFMQ & MAAS both verbatim)
Source(s)
- FFMQ (final version)
- MAAS
- Rowland - I focus on what is happening in the present moment and consciously avoid distraction

Statement Reversed Scored: It seems I am “running on automatic” without much awareness of what I’m doing (extracted from FFMQ & MAAS verbatim)
Source(s)
- FFMQ (final version)
- MAAS
- KIMS – I drive on “automatic pilot” without paying attention to what I’m doing
- Rowland - In my work, it seems I am running on automatic without much awareness of what I’m doing

Statement Reversed Scored: I find myself doing things without paying attention (extracted from FFMQ & MAAS verbatim)
Source(s)
- FFMQ (final version)
- MAAS
- Rowland - At any moment, I am conscious of my options and the choices I make
- CAMS (reversed) - It is easy for me to concentrate on what I am doing

Statement: I am sensitive to non-verbal cues when interacting with others (Rowland verbatim and PHLMS)
- Rowland
- PHLMS – When talking with other people, I am aware of their facial and body expressions

Facet/Dimension: Non-Judging (4)
Statement: I avoid telling myself that I should have thought differently (modified from FFMQ & KIMS)
Source(s)
- FFMQ (final version) & KIMS (reversed) – I tell myself that I shouldn’t be thinking the way I’m thinking
- Rowland – I consciously avoid telling myself that I should have acted/felt/thought differently
**Statement:** *When interacting with others, I seek to understand before I evaluate* (modified from Rowland)

**Source(s)**
- Rowland – *In interacting with others, I seek to understand before I evaluate*
- FFMQ (not final version) & KIMS (reversed) – *I tend to evaluate whether my perceptions are right or wrong*

**Statement:** *When faced with disturbing situations or obstructions during change, I see these as helpful resources that can lead to insights rather than barriers towards progress* (modified from Rowland; combined 2 statements)

**Source(s)**
- Rowland – *combined two of her statements: When faced with disruptive or disturbing situations I seek to understand the purposes this serves in the wider system AND; When confronted with obstructions I see them as a helpful resource rather than barriers to progress*
- FFMQ (not final version) & KIMS (reversed) – *I tend to evaluate whether my perceptions are right or wrong*

**Statement:** *I avoid telling myself that I should have responded differently* (modified and reversed from KIMS, FFMQ and Rowland)

**Source(s)**
- KIMS (reversed) and FFMQ – *I criticize myself for having irrational or inappropriate emotions*
- Rowland – *I consciously avoid telling myself that I should have acted/felt/thought differently*

**Facet/Dimension:** **Non-Reactivity (3)**

**Statement:** *In difficult situations, I can pause without immediately reacting* (extracted from FFMQ and FMI verbatim)

**Source(s)**
- FFMQ (final version)
- FMI
- Rowland – *verbatim*

**Statement:** *I notice my feelings and emotions without having to react to them* (Rowland verbatim)

**Source(s)**
- FFMQ (final version) & FMI (long version) – *I perceive my feelings and emotions without having to react to them*
- Rowland (verbatim)

**Statement:** *I consciously make time during disturbing situations to process what’s going on* (Rowland verbatim)

**Source(s)**
- Rowland: *I consciously make time and space during disturbing....*

**Facet/Dimension:** **Observing (2)**

**Statement:** *I intentionally stay aware of my feelings and how they affect my behaviors and actions* (modified from FFMQ and KIMS)

**Source(s)**
- KIMS – *I intentionally stay aware of my feelings AND: I pay attention to how my emotions affect my thoughts and behavior*
• FFMQ (final version) - I pay attention to how my emotions affect my thoughts and behavior

Statement: I pay attention to changes in my work environment (i.e. visual, verbal, cues and trends) that may have meaning during organizational change (Rowland –combined 2 statements; KIMS/FFMQ)

• Rowland: In different situations, I pay attention to the visual cues that may have meaning in this context AND; I notice changes and trends in the emotional climate of those around me

• KIMS & FFMQ - I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow

**Langer Mindfulness Scale: 2 Statements**

Statement: I like to investigate things (Novelty Seeking)

Statement: I make many novel (new different, original) contributions (Novelty Producing)

As defined by Ellen Langer:

**Novelty Seeking (NS)** – having an open and curious orientation to one’s environment; high scorers are likely to perceive each situation as an opportunity to learn something new

**Novelty Producing (NP)** – the capacity to construct new meanings or experiences; high scorers are likely to generate new information in order to learn more about the current situation

**Facet/Dimension: Non-Reactivity & Organizational Change Responses (2)**

Statement: I believe I have good control over my actions during organizational change (could be linked with Non-Reactivity but not tied to any mindfulness instrument; developed to evaluate “coping capacity” during change supported by the literature review in Chapter 2)

Statement: I believe I have good control over my behaviors during organizational change

Rationale from Chapter 2:

• The purpose of mindfulness, according to Carson and Langer (2006) “is to increase cognitive and behavioral control, thereby facilitating people’s capacity to tolerate uncertainty, be less reactive, and more flexible, and to experience a more meaningful engagement with their environment” (Hart et al., 2013, p. 454). “Control” has been shown to reduce stress and improve overall health (Langer and Moldoveanu, 2000)

• Fugate et al., (2008) found that when employees view change negatively (i.e. a potential threat or harm in pay, job security, etc.), this is often associated with reduced control and increased escape (negative) coping strategies

**Facet/Dimension: Positivity & Organizational Change Responses (3)**

Statement: I am generally positive and optimistic (during organizational change)

Statement: I believe I can positively effect change (Rowland: I am effective when leading change)

Statement: I am generally able to effectively deal with work-related changes that come my way

Rationale from Chapter 2:
Judge et al., (1999) found that Positive Affectivity was associated with overall psychological well-being and health and 1 of 2 strongest traits for positively coping with change

Linked to Resilience

Note: CHIME instrument was not referenced – studies are limited and unclear if valid and reliable

APPENDIX G

MINDFUL CHANGE BEHAVIORAL INTERVIEW PROTOCOL & DATA COLLECTION SHEET
Qualitative Research

Introduction

The aim of the interview is to get the most detailed, first-hand account of change leadership stories with the interviewee speaking 90% of the time.

It is not necessary to get the interviewee to recount the whole change story – what is most important is to get strong “being”/behavioral data within the story – in particular where the interviewee has the most vivid memory – it is not necessary to get all the facts about the story per se.

The skill of the interviewer is to:

a) Continually listen for, and then dig deep into, a series of concrete events, or tipping point moments in the story, where the interviewee’s leadership played an important role and they have rich emotional/behavioral data associated with that moment, and then

b) Probing with the right questions/prompts, in the right flow, to draw out how the interviewee went about leading change in these moments – and this includes, especially for this research, both their outer practice and inner experience of how they were leading change in that point of time

So ideally, the interviewee should describe both what they did (e.g. speech and action) and also how they noticed and regulated how they were (e.g. their awareness and conscious management of their mental states, feelings, impulses).

The more specific the better - Aim to get the interviewee to recall concrete examples of significant events – be that meetings, conversations, how they prepared themselves – do not ask them questions about how they generally go about things.

The interviewer should aim to avoid:

- Speaking too much – either in asking the questions, or commenting on/summarizing what the interviewee has just said
- Leading the interviewee through our questions (“surely you got an agreement from the CEO?”)
• Using “technical language” (sponsors, critical mass, drivers etc.)
• Or raising a topic that has not been raised by the interviewee (“how did you align your stakeholders?” “how did you get yourself mentally prepared?”)
• Asking questions to get to all the facts of the story (rather than probing for emotional/behavioral events) or being too rigid (you are not a “talking questionnaire”)
• Questions that ask for their general theories or motives (beware “why” questions in this kind of interview)

Framework for Interview

1. **Introduction** – background to the research (see enrollment letter), permission for recording, use of the data, confidentiality, opportunity to review their transcript & receive phone/skype feedback
2. **Outline the plan** for the interview, check finish time
3. **Warm up questions** about what’s going on generally in this part of the organization, what’s your current role, and how long have you been in it (just brief responses)
4. Ask interviewee to **mindfully identify one or two stories** (either successful or failed/less successful), give the interviewee a chance to reflect:
   a. You were personally involved and central as a leader
   b. Story within the last two years
   c. Sufficiently developed – there are some outcomes
5. **Interviewer writes down titles** of the two stories (see “Data Sheet” in Appendix of this document)
6. **First story data sheet** – fill in data sheet (Appendix) – note: complete the two last questions, the success rating for the change, and the frequency of the interviewee’s mindfulness practice – at the end of the interview
7. **First story chronology flow - framing and choosing** – ask the interviewee for a brief high level overview of the whole story, the key phases of the change, and write these “chapter headings” to the story down – they can be a navigating guide through the interview – ask them to identify which parts of the story to emphasize, the parts where they have most vivid memory
8. **First story deep dive** – ask the interviewee to tell the story chronologically, using the overview keep them on track and make sure you just focus on the seminal phases and events where they have most vivid memory. Start with “how did you first become involved in this change?”
9. **First story conclusion** – anything else that you think is important to the story; reflections on what happened
10. **Complete the first story data sheet** – ask the last three questions: (if you are getting two stories, save questions b and c to the very end of the interview)
    a. success rating of the change (including how they came to that rating)
    b. “Can you say that you have a current “mindfulness” practice? This means anything that 1. Helps you to stay completely in the present moment and 2. In a way that directs your attention inwards, so that you can notice what is going on for you – in your mind – your feelings, thoughts, sensations
etc.” See what they say, use prompts such as classic meditation, or yoga, journaling, contemplative walks in nature, silent reflection with music etc. Then, ask for the frequency of their practice

- finally, ask what three adjectives that come to mind when you say the word “mindfulness”

11. **Second story** - if time (as per first story)

12. **Concluding the interview** – thank you; what happens next; reflection on the interview.

**Questions to use in the “deep dive” into the story**

The simpler and shorter the question, the less we influence the interviewee. So, we should ask only a narrow range of questions. Here are some overall questions to move through the interview, plus suggested prompts that you can use at any time to probe a bit deeper

**Navigating questions**

- Can you recall a significant moment/event that happened in this phase, where you have the most vivid memory?
- What did you do in that moment?
- How did you do that or how was that done?
- What did you say?
- How did you prepare yourself?
- What were you noticing at that time
  - About self, others, and the wider situation?
- Can you remember your response in that moment?
  - And what did you do with that?
- What was the response of others involved?
- What was that like?
  - For you
  - For them
  - How do you know that?
- What happened or what happened next?
- What did you do next?

**Prompts (to use in conjunction with the questions above)**

- If I could see you in this meeting/conversation etc. what would I be seeing and hearing?
- If I was ‘inside you’ - as you - what would I be noticing and experiencing?
- How was it for you?
- What was going on for you?
- What was that like?
- What did you do with that?
- Can you give me a specific example of that?
# Data Collection Sheet

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
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<tbody>
<tr>
<td>Interviewee:</td>
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<td>Organization:</td>
<td></td>
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<tr>
<td>Date:</td>
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<tr>
<td>Story Title:</td>
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<tr>
<td>Change History of the Organization: 1 = steady state 2 = regular change 3 = high volatility</td>
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<tr>
<td>Time since start of story: 1 = &lt;12 months; 2 = 12 to 18; 3 = &gt;18 months</td>
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<tr>
<td>On-going or completed:</td>
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<tr>
<td>Scale of Change: 1 = small proportion of staff affected; 2 = many impacted; 3 = all impacted</td>
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<tr>
<td>Complexity of Change: 1 = relatively simple; 2 = moderate; 3 = highly complex, many levers/dimensions</td>
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<tr>
<td>Source of change Driver: 1 = internal; 2 = external but within overall organization; 3 = external to whole organization</td>
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<tr>
<td>Success/Failure Rating (if change still on-going, rate to this stage): 1 = worst; 3 = neutral; 5 = best</td>
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<tr>
<td>Ask – how did you arrive at your rating? (Their response will be picked up in the transcript)</td>
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<tr>
<td>Ask for existing mindfulness practice (e.g. meditation, yoga, daily reflection, journaling) then frequency of this 1= no practice; 2= periodic; 3= daily</td>
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<td>Finally, please give us three adjectives that come to mind when you think of “mindfulness”</td>
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APPENDIX H

INTRODUCTORY LETTER SOLICITING INTERVIEW CANDIDATES

Introductory Letter – Following is the Original including subsequent modifications (after consultation with my advisor, Dana S. Kaminstein, Ph.D.)

Re: Invitation to Participate In Mindful Change Leadership Research
As a leader of large scale and complex change within the last 2 years, I thought you would be interested in participating in research related to my Capstone at the University of Pennsylvania regarding effective change leadership.

Why bother?
While “change leadership” is not new. What is different about this inquiry is the aim of connecting the concept and practice of “mindfulness” to the effective leadership of big change. And I am very fortunate to have the privilege of working with Deborah Rowland, a pioneer and thought leader in the area of Mindful Change Leadership.

Ten years ago she and Malcolm Higgs pioneered some groundbreaking research into certain leadership practices associated with leading change well (and published as Rowland & Higgs: “Sustaining Change: Leadership That Works” 2008). This research was both rigorous and relevant – and the practices have now been widely picked up by many leaders tackling the challenges of implementing successful change.

However, to our knowledge no empirical study has yet been done to correlate the practice of mindfulness with effective executive change leadership. Both Deborah and I would like to fill this gap, and we would like you to join us in that!

Key Research Questions for the Inquiry
Where, why, and how does “mindfulness” play in the effective leadership of change?

What is involved?
We are conducting both qualitative and quantitative research and are inviting leaders like yourself to participate. You will be asked to give @1.5 hours of your time, during which you will:

1. Participate in a “Behavioral Event Interview” (BEI) in which you, as the change leader will be asked to recount recent stories of when you have led big change. I’ll ask you very focused questions about the aims and goals of the change, what you actually did in the change process, and what the outcomes were, and
2. Complete a short questionnaire to assess your current ability to “lead in a mindful way”
Interviews will be taped (but will remain confidential) and correlated with the change outcomes and the questionnaire. At all steps of the research inquiry (testing hypotheses, developing insights, creating practical applications) we will keep you involved and as engaged as you would like to be.

At a minimum, if you like, you will receive, gratis, through Deborah, personal feedback on your own capacities. All individual profiles and interview data will be kept strictly confidential.

I look forward to hearing your response!

**Qualitative Interviews - Preparatory Letter**
*(Used once the candidates were identified and scheduled for an interview)*

Dear x

I am looking forward to our "Behavioral Event Interview" (BEI) session, *(put in date, time, and venue).* There is no need to do much preparation for the BEI - the more spontaneous the better

However you might want to spend a little time beforehand identifying 1-2 change stories that you would like to share - this will be very much a personally reflective interview to elicit your **actual behavior and practice** - not your opinion - about how to lead change mindfully.

I will guide you through the interview, so you can relax and enjoy. I will not need to hear your complete change story. **What will be important** were your thoughts, feelings, responses through the key events in the story itself, what you noticed and observed about yourself and others during those pivotal events and defining change moments.

**Here are the criteria for the story/stories you may wish to choose**
- It is a story about initiating and implementing big change (a key break from the past/present, where many people were impacted, and the change required new mindsets, structures, ways of operating etc.)
- It is a story in which you personally were a key accountable/responsible leader
- A story that has taken place within the last two years (for your memory recall!)
- And a story that has been around enough time that you can start to measure its success (not necessarily "ended", but a change that has already had some milestones hit)
- If you do select two stories, then it is always helpful to have one that was more or less successful (i.e. it is meeting its desired outcomes) and one that was less successful

I will spend a little time upfront gathering some data about the story, I will then ask you to summarize the story ("in a nutshell"), and then I will ask you to go through the story to date, recounting in particular your most vivid memories of your emotional experience through the story, and what you did - before, during and after significant meetings, encounters etc.

The interview is not about you being a great storyteller! So don't worry about that, as I said I will guide you with prompts along the way. The most important task for you is to recount the story in glorious 4D Technicolor - and focusing in particular on **you**.

I hope this helps set the scene for our encounter. And thanks once again for agreeing to
participate.

Later in the year, there will be a chance to get some rich feedback on what we have found. Hope this all makes sense. Please do not hesitate to get in touch beforehand if you have any questions.