

Leading through Uncertainty: Mindfulness and Leadership in Uncertain Environments

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ABSTRACT:

This paper reports on preliminary findings from a large ongoing study that examines mindfulness among managers working in uncertain environments. The data reported here relates to findings for 120 senior managers working in a large for-profit project management organisation. Self-report data for mindfulness, general leadership behaviours (proactivity, adaptability and task mastery behaviours), emotional intelligence, self-leadership, and wellness indicators were collected. As well, ratings of leadership behaviours from the direct supervisor of each manager were also collected. While previous research examining mindfulness of non-managerial staff has presented promising results, the results obtained in this study have shown little significant correlation between mindfulness and the various measures explored. We discuss possible reasons for these results and suggest future research directions.

Keywords: Mindfulness, Leadership Development, Organisations, Changing Environments, Leadership Performance.

Introduction

The study reported in this paper was motivated by a desire to support managers to negotiate the increasingly uncertain nature of modern business environments. Uncertain and dynamic work environments can be highly challenging personally and professionally (Motowidlo & Van Scotter, 1994). They require managers to: respond appropriately to change and ambiguity (Dunphy & Stace, 1993); take into account a wide range of information and events (Endsley, 1995; Ocasio, 2011); and be resilient to high levels of stress and high demand on their time and energy (Boyatzis & McKee, 2005). In recent years, researchers have begun exploring the role that mindfulness - focusing attention to the present moment - can play in assisting workers to deal with the demands of working in such uncertain work environments (Dane, 2011; Gonzalez, 2005; (Dane & Brummel, 2013; Vogus, 2011) and there has been a growing interest in mindfulness at work. However, most discussion about mindfulness at work to date has centred on the theoretical nature of the construct and its hypothesized resultant benefits. To date there has been little empirical research into the potential impact that mindfulness could bring to business performance, (Dane & Brummel, 2013; Glomb, Duffy, Bono, & Yang, 2011; Sauer & Kohls, 2011).

One key research question relates to the association which mindfulness may have with the behaviour of managers which, in turn, influences performance in uncertain work environments. That question is the focus of a larger ongoing study to which the research reported here contributes.

This paper begins with a brief overview of the suggested benefits of mindfulness on leadership behaviours and traits and outlines a study that empirically explores those relationships. In doing so, we report on preliminary data examining the relationship between mindfulness and a range of measures of leadership behaviours and traits that are thought to underpin effective leader behaviour in uncertain environments.

Mindfulness and Leadership Behaviours

Mindfulness has traditionally been associated with Buddhism and meditation practices (Nyanaponika & Bodhi, 1949); (Hanh, 1999; Kabat-Zinn & Hanh, 2009) but a more recent alternative has emerged from been to see it as an information processing approach (Weick & Sutcliffe, 2006) whereby the key aspect of mindfulness lies in drawing novel distinctions (Ellen J. Langer & Mihnea Moldoveanu, 2000). These alternative views are seen as eastern and western approaches to the conceptualization of mindfulness and there is an emerging discussion about the differences between the two. (Pirson, Langer, Bodner, & Zilcha-Mano, 2012).

In recent years mindfulness has been linked to positive outcomes in a variety of scientific domains including health sciences (Baer, 2003; Bishop et al., 2004; Brown & Ryan, 2003; Kabat-Zinn, 2005); psychology (Segal, Williams and Teasdale 2002, (Coffey, Hartman, & Fredrickson, 2010); and neurology (Hölzel et al., 2010; Lazar et al., 2005). While mindfulness is conceptualised within domain-specific ways, there is general agreement that it is a state of consciousness or being in which attention is focused on the present moment in non-judgemental ways so that experiences are accepted rather than being evaluated (Dane, 2000; Hulsheger, Alberts, Feinholdt and Lang, 2013; (Ellen J. Langer & Mihnea Moldoveanu, 2000).

Research on mindfulness suggests that it is associated with a variety of behavioural and cognitive outcomes that may provide significant benefits to those working in uncertain and challenging work environments. What remains unclear is the mechanism that leads to the proposed benefits of mindfulness at work. The literature suggests three potential pathways: self-regulation; generalized behaviour; and wellness.

The first proposed mechanism is a positive impact on the leader's self-regulation. As summarised by Glomb et al. (2011) the benefits of mindfulness include heightened awareness, positive mental experiences and intentional emotional and physical regulation. Thus it is proposed that the impact of mindfulness on regulation of effort, cognition and emotions is also likely to enhance the actions associated with the important self-management behaviours (Manz, 1986) needed by leaders to effectively respond to competing and challenging demands in order to reach work goals. Furthermore, regulation of emotions is considered an essential aspect of emotional intelligence, which has been linked to effective leadership performance (George, 2000). Thus we would expect to see a positive relationship between mindfulness and effective leadership behaviours (George, 2000).

The second proposed mechanism of impact is that mindfulness could potentially aid the quality of decision-making and problem solving as it is said to increase the breadth and focus of attention (Sauer and Kohls, 2011). Because this study explores leadership in uncertain environments, it draws on a new model of work role performance designed with uncertain environments in mind (Griffin, Neal, & Parker, 2007). Drawing on this model it can be argued that in uncertain environments a leader requires greater adaptability and proactivity and that it is context which determines which behaviours are important (Griffin, et al., 2007). Therefore mindfulness can be explored in terms of its relationship with promoting task proficiency, adaptability and proactivity as a way of observing its direct impact on leadership performance in uncertain environments.

The third proposed mechanism is the strong correlation between mindfulness and wellbeing and wellbeing and performance. Mindfulness positively impacts performance by enhancing psychological wellbeing and by increasing resilience of leaders and their employees. This in turn leads to more effective performance (Hassed et al., 2006; Hülshager, Alberts, Feinholdt,

& Lang, 2013; Kostanski & Hassed, 2008; Reb, Narayanan, & Chaturvedi, 2014; Sauer & Kohls, 2011; Wright, Cropanzano, & Bonett, 2007).

To assess these relationships, we have drawn on a number of previously researched measures of leadership traits and behaviours which have been found to be positively associated with effective leadership.

Methodology

This study investigates the link between mindfulness and leadership by looking at the relationship between mindfulness and a range of measures that have been argued in the literature to relate to effective leadership in dynamic work environments. The data reported here comes from research focused on senior managers of a global engineering firm - for the sake of this paper it will be called ABC Global. This organisation utilizes a project-based structure with cross-functional global teams.

Data was collected from senior managers who were undertaking a formal, internally designed and delivered training program in advanced leadership. The program is conducted every few months and involves from 20 to 40 managers each session. Prior to attending the training program, participants were invited to complete a questionnaire (see measures section below) to assess various dimensions of personality and leader behaviour. Completion of the assessments was voluntary and independent of the training program content and delivery.

Written consent to involvement was secured prior to data collection. Participants also gave permission for direct supervisors to provide ratings related to effective leader behaviours (instrument described below). To encourage involvement, participants were provided feedback for use in their ongoing development. Furthermore, the organisation's learning and development team indicated to participants that coaching would be provided internally to support the use of assessments for their development. Survey administration, except the assessment of emotional intelligence (which was completed online), was conducted by the

organisation and forwarded to the researchers. To date 120 senior managers have participated in the data collection process. The average age for the participants for the study was 39.6 years with a mean organisational tenure of 6.7 years. 27 of the cohort were female.

Measures

Mindfulness

Dispositional mindfulness was measured using the Mindful Attention and Awareness Scale – MAAS - (Brown & Ryan, 2003). It is a short questionnaire that takes 5-10 minutes to complete. It is a highly validated tool to measure trait like mindfulness as opposed to the mindfulness that is developed through training and practice.

Self-regulation

The term self-regulation was used to refer to underlying skills and abilities of a person to control behaviour, emotions, and cognitions in order to guide themselves in goal-directed activities (Karoly, 1993). Two measures were incorporated to tap behavioural and cognitive strategies and emotional dimensions of self-regulation – the Modified Self-Leadership Questionnaire (MSLQ, see Ho & Nesbit, 2009) and the Mayer Salovey Caruso Emotional Intelligence Test (MSCEIT, see Mayer, Salovey, & Caruso, 2008).

Self-leadership is considered “a self-influence process” (Neck & Houghton, 2006, p. 2) that people use to support the achievement of task goals. The MSLQ instrument incorporates three sub-scales – behavioural strategies of self-management, constructive thought strategies and strategies related to focusing on natural rewards within task actions. Thus, self-leadership represents a variety of approaches to self-regulate actions and cognitions in support of reaching goals. The MSLQ consists of 38 items describing various behaviours associated with self-leadership. Participants use a 5-point Likert-type scale ranging from 1 (*not all*

accurate) to 5 (*completely accurate*) to indicate how each behaviour statement applies to them.

The MSCEIT measures the ability of a person to perceive emotions in themselves and in others; how well people manage their own life-emotions; and the ability to manage other people's emotions. The test has 122 items and was conducted online. (For more information about the MSCEIT refer to (Mayer, Salovey, Caruso, & Sitarenios, 2003).

Effective leadership behaviours

To assess effective leader performance behaviours the study used a 48-item survey that assesses technical mastery, adaptability and proactivity of the manager participants (Griffin, et al., 2007). Participants used a five-point scale (1 = strongly disagree, 5 = strongly agree) to reflect on how well the items represent their work behaviour. Leadership performance on each of these three areas was self-assessed by participants as well as being rated by their direct supervising manager.

Wellness

Three measures of wellness were used in the study: Satisfaction with Life Scale (SwLS - see (Diener, Emmons, Larsen, & Griffin, 1985); measure of Positive and Negative Emotion (SPANE -see (Diener et al., 2010); and one addressing general wellbeing (Tennant et al., 2007).

The 'Satisfaction with Life Scale' is a five-item measure that assesses an individual's global judgement of life satisfaction as a whole. It measures the cognitive component of subjective wellbeing, providing a perspective of how a person's life is going in holistic terms. Participants rate statements on a seven-point Likert scale, ranging from 'strongly disagree' to 'agree'.

The 'Scale of Positive and Negative Experience' (SPANE) consists of a 12-item questionnaire assessing positive feelings and negative feelings. For both the positive and negative items, three of the items are general (e.g. positive, negative) and three per subscale are more specific (e.g., joyful, sad).

The English version of the 'WHO-Five Wellbeing Index' (WHO, 1999) assesses a person's current state of psychological well-being. Participants indicate how they felt during the previous two weeks by scoring five statements on positive mood, vitality, and general interests from 'all of the time' (5) to 'at no time' (0). The WHO Wellbeing Index (WHO-5) is used to indicate overall well-being and covers aspects of physical as well as mental health (Corey, 2007; Karreman & Vingerhoets, 2012).

Results

Descriptive statistics for all variables in the study can be found in Table 1.

Mindfulness: The mean for mindfulness among the managers in this study was 4.05 (s.d.-0.62). This is higher than has been found in general community members (3.97, s.d.-0.64) in the pivotal paper describing the measurement tool used the Mindful Awareness Attention scale - MAAS, (Brown & Ryan, 2003), pg. 833) and lower than the Zen practitioner mean of 4.29 (s.d.-0.66) measured in the same study.

Self-leadership: Self-leadership returned a mean of 3.5 (s.d.-0.41). This result is very similar to a mean result of 3.47 (s.d.-0.47) for self-leadership among Chinese managers reported by Ho and Nesbit (2014). Also Ho and Nesbit (2012) reported a self-leadership mean score of 3.26 for Australian higher education students (Ho, J., & Nesbit, P. L., 2014).

Emotional Intelligence: The emotional intelligence mean score of 94.5 (s.d.-14.7) was substantially below the population mean score of 100 that applies to the MSCEIT. However, this score is consistent with a mean score of 94 reported by Nesbit and King (2013) for 475 Australian managers (Nesbit, P. L., & King, E., 2013).

Satisfaction with Life: The ‘Satisfaction with Life Scale’ (SwLS) has been used in hundreds of studies and mean adult scores vary between 24.1- s.d.-6.9 (Hayes & Joseph, 2003) and a reported adult mean of 24.9 (s.d.- 6.0), (Gannon & Ranzijn, 2005). Scores in the SwLS range from 5 to 19 on the dissatisfied end of the scale and 21 to 35 on the satisfied end of the scale (Pavot & Diener, 2008). The mean score for this study was 25.8 indicating that the managers were more satisfied with their life in general than the average population.

Affect: The SPANE measure (positive and negative) can be used to derive an overall affect balance score, but can also be divided into positive and negative feelings scales (Diener, et al., 2010). This study found the average positive score to be similar to that of the population (22.3), whilst the average negative score was less than the population (13.7) resulting in a more positive ‘balance’ score than the population (8.6).

Wellbeing: The WHO-5 measures general wellbeing and provides scores ranging from 0-25 with 25 representing the highest possible score. In the general population there is a difference between men and women in these scores. The average score for men is 19 and the average score for women is 19.5. The average score in this study was 15.7 - below that of the average population.

Discussion

The primary objective of this research is to explore the relationship between mindfulness and leadership behaviours of managers within uncertain environments. However, the results did not support the expected relationship between mindfulness and the variables measured. Apart from the relationship between mindfulness and wellness measures, these results show very limited support of the expected relationships. Mindfulness was not generally associated with the measures of self-regulation and performance-related behaviours used in this study. Our study was limited to correlational analysis given the limited results obtained. More sophisticated analysis, such as regression analysis, was unwarranted.

A number of explanations may be presented for the limited relationships seen within the study thus far. Data size, while sufficient for strong relationship, may still be too limited to pick up relationships that are at best only modest. However, while some relationships were in the right direction but not significant, it is questionable that more data would greatly impact the trends observed.

A second explanation might reside in the nature of the sample we explored. All were senior managers who had been selected for leadership advancement and development. Typically such programs are focused on recognised talent within the managerial pool. Thus our sample, especially in the performance behaviours, may have tended towards the upper levels thus restricting variance in these data and limiting relationship with mindfulness and other measures.

A third possibility relates to the nature of mindfulness explored in our study. Other scholars have adapted the MAAS measurement to suit specific work environments (Dane & Brummel, 2013) and have noted that the tool itself shows limited variability (Sauer & Kohls, 2011). Further, the MAAS measures mindfulness as it is traditionally conceptualized (eastern), and while it is well suited to health care investigations, there is an intellectual tension between the differences in the eastern conceptualization and the intention to enhance leadership performance within the context of western organizational life. It may be more effective to use the construct definition and measurement tools based on the definition and work of Ellen Langer (Ellen J Langer & Mihnea Moldoveanu, 2000). The Langer measurement investigates mindfulness conceptualized in a socio-cognitive (western) manner which aligns more closely with the objectives of leadership performance in a complex western environment.

What is clear from the work so far is that mindfulness does correlate with wellness and this relationship suggests that mindfulness would be a meaningful addition to developmental interventions for leaders in uncertain environments to increase their resilience to the

challenge inherent in navigating relentless change and unresolved ambiguity. The ongoing data collection and interviews will seek to increase insight and understanding of the relationship between mindfulness and leadership performance.

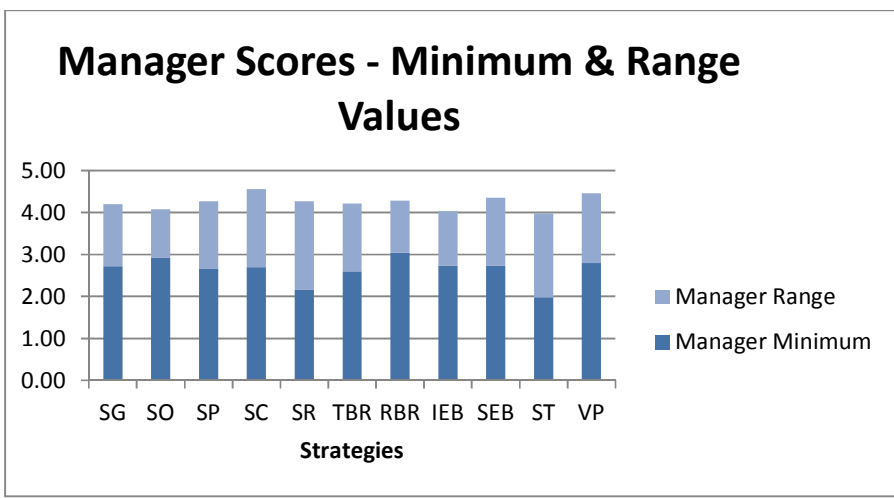
One explanation for these results could be that dispositional mindfulness is enough to impact wellness but intentional use of mindfulness in the work context, is required for its benefits to flow onto leadership behaviours.

Appendix 1: Table 1 - Correlations of Relationships between Mindfulness and Other Measures

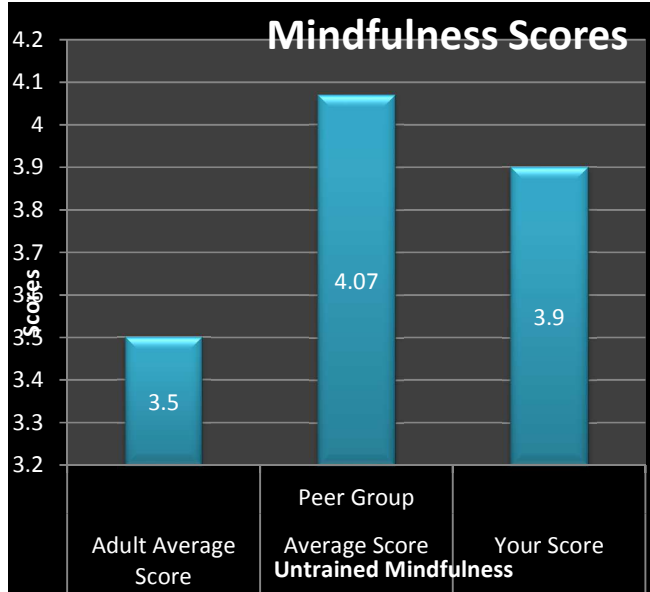
		Mindfulness Total
Mindfulness Total	Pearson Correlation	1
	Sig. (2-tailed)	
	N	120
EI Total	Pearson Correlation	.029
	Sig. (2-tailed)	.758
	N	119
WB_TOT	Pearson Correlation	.430**
	Sig. (2-tailed)	.001
	N	52
PNE Balance	Pearson Correlation	.283*
	Sig. (2-tailed)	.042
	N	52
Life Satisfaction Total	Pearson Correlation	.299*
	Sig. (2-tailed)	.031
	N	52
Self-Reflection 7 items	Pearson Correlation	.151
	Sig. (2-tailed)	.099
	N	120
Self-Leadership	Pearson Correlation	.005
	Sig. (2-tailed)	.959
	N	118
Performance - self-rating of Tech. Individual level	Pearson Correlation	.169
	Sig. (2-tailed)	.099
	N	97
Performance - self-rating of Adaptivity Individual level	Pearson Correlation	.203*
	Sig. (2-tailed)	.046
	N	97
Performance - self-rating of Proactivity Individual. Level	Pearson Correlation	.100
	Sig. (2-tailed)	.328
	N	97
Performance - self-rating of Tech. Team level	Pearson Correlation	.179
	Sig. (2-tailed)	.080
	N	97
Performance - self-rating of Adaptivity Team level	Pearson Correlation	.205*
	Sig. (2-tailed)	.044
	N	97
Performance - self-rating of Proactivity Team level	Pearson Correlation	.073
	Sig. (2-tailed)	.480
	N	97

APPENDIX 2 : Examples of Graphs Provided to Show Group/Population Scores

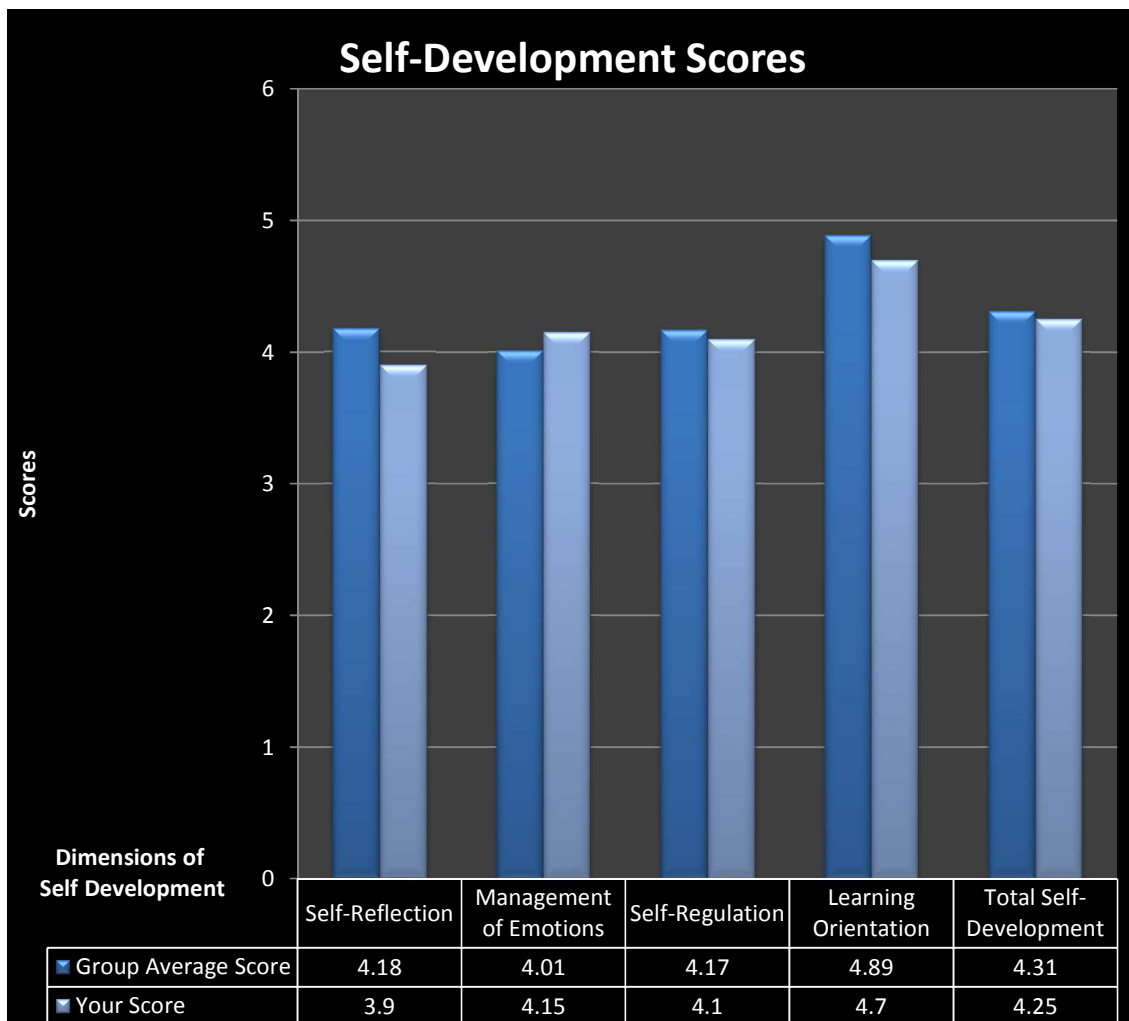
Self-Leadership



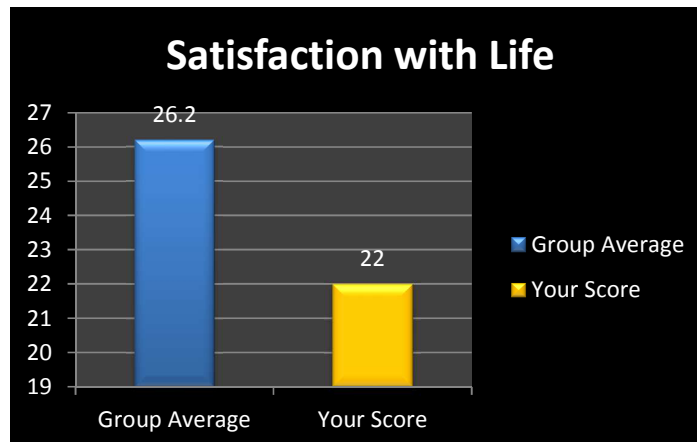
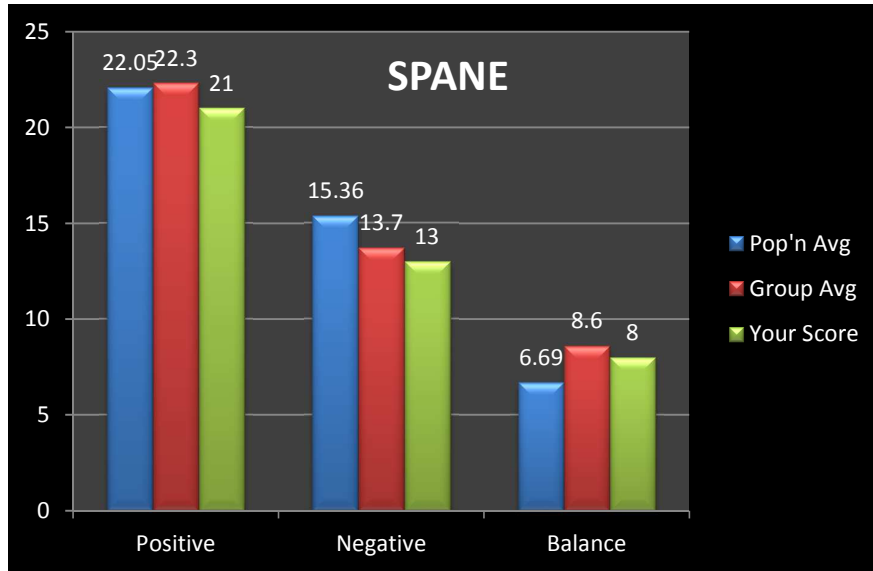
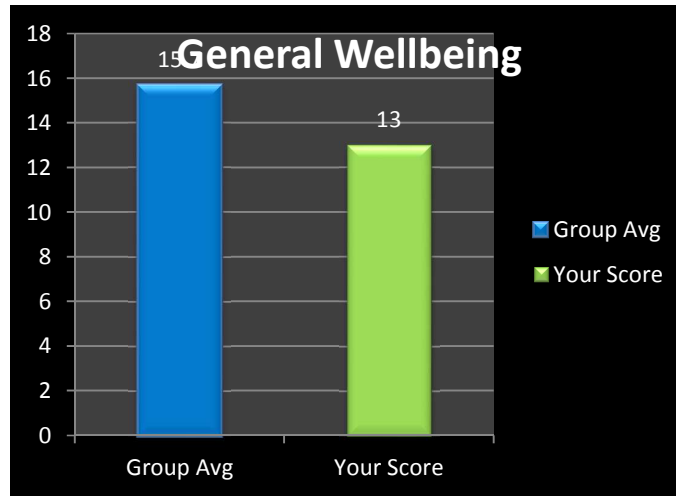
Mindfulness Scores



Self-Development Scores



Wellbeing



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