

Meditation and Workplace Creativity: A Potential Relationship

Mansi Mansi

Doctoral Scholar

School of Management

RMIT University

Email: mansi.mansi@rmit.edu.au

Associate Professor Adela McMurray

Director, Research Support & Performance

Research & Innovation Portfolio

RMIT University

Building 91, Level 2, 110 Victoria St Carlton

Email: adela.mcmurray@rmit.edu.au

Meditation and Workplace Creativity: A Potential Relationship

ABSTRACT

This multidisciplinary literature review across the business, medicine and psychology disciplines explored the possible relationship between meditation and workplace creativity. This review generated four staged frameworks resulting in the Meditation and Workplace Creativity Intervention Framework which yielded the equation 'NF+M = C → WC' (Negative Factors + Meditation = Change Facilitating Workplace Creativity). The hypothesized equation may be utilized as a potential diagnostic tool for future studies within organizational settings so as to facilitate workplace creativity. This paper stimulates thinking in the area of meditation, workplace and creativity.

Keywords: Meditation, Creativity,

INTRODUCTION

The concept of 'Meditation' and 'Workplace Creativity' may appear irreconcilable and unrelated; however, this paper uncovers the potential relationship between these two concepts and the way they complement each other. Thus, the purpose of this exploratory conceptual paper is to systematically analyse and consolidate the existing multidisciplinary meditation literature which is dominated by the health and medical disciplines. Secondly, the paper provides an understanding of how meditation has the holistic capacity to enhance workplace creativity.

We have developed four frameworks identified as the Internal & External Meditation Factors Framework, the General Meditation and Workplace Creativity Framework, the Micro Meditation Workplace Creativity Framework and finally the Meditation and Workplace Creativity Intervention Framework. These frameworks consolidate the meditation literature to show the different layers of positive changes in an individual's physical, psychological and physiological wellbeing due to meditation practices. The concluding framework 'Meditation and Workplace Creativity Intervention Framework' is the contribution of this paper which depicts the potential relationship between

meditation and workplace creativity. However, the developed equation in this framework needs empirical investigation; and multi-disciplinary literature review suggests that meditation has the potential to enhance holistic creativity within the workplace.

Fisher (2006) provides practical reasons that philosophers have argued for centuries that humans, by nature, are meditative beings. For example, Descartes called his writings 'Meditations', Similarly, Heidegger drew a clear distinction between 'calculative' and 'meditative thinking'. The literature accentuates that workplace creativity is dependent on various phenomena and requires the utmost balance between mind and body where there is communication between various brain waves which coordinate complex tasks such as control, transmit, information and are the centre for dynamic creativity (Judith, 2008, pp 228).

The literature shows that meditation increases learning ability (Dillbeck 1982), clarity of perception (Saradth 2003), moral imagination (Forge,2004), focused attention (Ospina et al, 2007) and mindfulness and cognitive flexibility (Moore and Malinowski, 2009). Thus we contend there is a possible relationship between meditation and workplace creativity and pose the following research question which underpins our conceptual theory building paper:

Research question 1: What is the potential relationship between meditation and workplace creativity?

To answer the research question, we conducted an in-depth multidisciplinary literature review and utilized conceptual theory building to develop a four staged meditation and workplace creativity framework accompanied by theoretical propositions.

RESEARCH METHOD

This multi-disciplinary conceptual theory building paper employed a systematic in-depth documentary analysis of the meditation and workplace creativity multi-disciplinary literature. A systematic analysis of the business, medicine and psychology disciplines was followed by

triangulating the findings which uncovered the positive benefits of meditation and its relationship with the different forms of workplace creativity which in turn informed each stage of our four frameworks.

We acknowledge there are different schools of meditation, which promote and practise their own unique Meditation technique such as Zen Meditation, Transcendental Meditation, Vipassana Meditation, Kaon Meditation, Mahayana Meditation, Tibetan Meditation and Mindfulness Meditation. Different religions such as Buddhism, Zen, Hinduism, and Sufi interpret meditation in their own way, this paper does not associate meditation with any particular religion, culture or country. The term meditation is used throughout the paper and is regarded as a physical activity, which has multi-facet physical, psychological and physiological benefits.

In total we reviewed two hundred and ten studies and of those studies, thirty one were relevant in developing the foundational stage identified as the 'Internal and External Meditation Factors' framework. This framework provides overwhelming evidence that meditation profoundly influences a person's mind, health, emotions, feelings and physical state.

Establishing this foundational stage, facilitated in progressing on to the next stage of analysis where eleven of the two hundred and ten studies informed the development of the 'Meditation and Workplace Creativity Framework' thereby disclosing the potential relationship between meditation and different forms of workplace creativity. It is noticed in this framework that not all of the studies have a direct relationship between meditation and workplace creativity. We contend that meditation impacts the workplace creativity in a holistic manner which is broad and multi-layered.

Building on stages one and two, the in-depth analysis then progressed to the development of the 'Micro Meditation Workplace Creativity Framework' which is the triangulation of three studies from two different era's (1974 and 2009) drawn from the Business and Psychology disciplines. The findings in stages one, two, and three formed the pillars to the fourth stage 'Meditation and Workplace Creativity Intervention Model' which systematically compiles and concludes all the stages

proposed in this paper. This model highlights the antecedents, outcomes, and importance of meditation in enhancing holistic workplace creativity and yields an equation which may be utilized as a diagnostic tool by future studies to test this potential relationship

Literature review reveal that studies conducted across diverse disciplines in different decades are predominantly US based and have used wide range of methods. Meditation is also extensively studied across health disciplines because of its potential benefits on mind and body. We noted that there is an inconsistency in the meditation and workplace creativity studies. For example, Frew's (1974) work is the pioneer in recognising the relationship between meditation and creativity. Domino (1977) in an empirical investigation suggested that there is a significant correlation between transcendental meditation and creativity. Similarly, after three years Travis (1979) in longitudinal study found that transcendental meditation technique enhances creativity. Although the number of studies were limited, the Meditation and creativity relationship was identified approximately forty years ago in nineteen seventy. The relationship between transcendental meditation, creativity and pure consciousness was established by Orme-Johnson and Haynes (1981). A further study conducted on Swedish managers uncovered that meditation has multidimensional benefits and one of which is creativity (Schmidt-Wilk et al, 2000). However, the literature indicates that in the management and business disciplines the recognition of the meditation and workplace creativity relationship is inconsistent and patchy. Consequently, it may be seen that there is a gap in the meditation and workplace creativity literature. As the literature suggests, we recommend that meditation and workplace creativity studies especially in the business and management disciplines requires rigorous empirical investigation which would provide equivalence as found in the medical and psychological disciplines.

THEORY

Our literature review reflects that there is a mutual interdependency and connection between the two domains of Internal and External Meditation Factors. Therefore, Spillover Theory (Diener, 1984; Wilensky, 1960) which conceptualizes the vertical and horizontal aspects of meditation shown in the

four frameworks provides the theoretical underpinning for this paper. Spillover theory posits that satisfaction in one's life domain affects satisfaction in another life domain (Giacalone and Jurkiewicz, 2003, pp 209).

The Spillover effect of meditation is seen in prior studies which have identified that meditation has positive influence on the Internal ((Eppley et al, 1985; Shapiro et al, 2005; Michaels 1976; Wallace et al, 1983) and External Wellbeing (Forge, 2004; Roedler et al, 2009; Nidich at al, 1972) of an employee. Meditation is also studied in conjunction with workplace creativity such as development of personality (Nidich at al, 1972); focused attention (Ospina et al, 2007); cognitive flexibility (Moore & Malinowski, 2009) and problem solving (Kinder, 1979). Work and life are not viewed as a separate compartment and their meaning made in life or at work have spillover effects (De Kalerk, 2004; Liou et al, 1990). Therefore, the spillover effect of meditation on an employee's vertical and horizontal well being highlights the congruent relationship between meditation and workplace creativity and underpins our four frameworks.

MEDITATION: A REVIEW OF LITERATURE

To date, no universally accepted definition of meditation appears to exist in the literature. This could be due to the fact that the purpose and meaning of the term meditation is vast, complex and multi-dimensional. In addition, the term is cumbersome to define due to its multi-meaning and is studied across numerous disciplines. However, the attempt to define meditation by different authors has made this term prosperous and diverse where the literature provides a plethora of definitions, which describe meditation in a unique and diverse way. For example, an early definition proposed by Hewitt (1977) states that meditation is a general term applied to the methods of steadying, quieting or opening the mind for the purpose of altering states of consciousness and entails training the mind, especially one's attention and will, so that one may set forth from the surface level of consciousness and journey into the very depth of raised consciousness.

Building on Hewitt's (1977) general definition, Easwaran, (1979) is more specific and states that meditation is a systematic technique for concentrating and taking hold of, the utmost degree of our latent mental power which consists of training the mind, especially our attention and will, so that we may set forth from the surface level of consciousness and journey into the very depths of consciousness.

Extending Easwaran's (1979) definition, Roth (1987) proposes that meditation is the simplest form of human awareness and pure consciousness open only to itself and its own full potential. Edwards (2000) would agree and suggests that techniques such as meditation increase creativity by enhancing the capacity to visualise, which is a touchstone of creative thinking.

In support of Roth's explanation, Losyk (2005) states that meditation liberates the mind from distracting thoughts and facilitates a state of calmness where meditation assists in being in the present moment and thereby strengthening the mind-body correlation.

In agreement, Cullen (2006) asserts that with advanced brain scanning technology, studies show that meditation directly affects the function and structure of the brain, changing it in ways to enhance attention span, sharpen focus and improve memory. She found evidence that daily practice of meditation thickens the part of the brain's cerebral cortex responsible for decision-making, attention and memory. She further states that Deutsche Bank, Google and Hughes Aircraft offer meditation classes to their employs and as a result, meditation prevents stress-related illness, regulates emotions, increases cognitive intelligence and reduces absenteeism. Rampersad (2007) concurs and states that improved concentration is the result of meditation, which is the rediscovery of a natural state of awareness and forms an effective basis for self-knowledge.

The conventional meditation literature states that the utility of meditation was confined to the related dimensions spiritual awakening. Studies addressing the implication of meditation is inexhaustible, such as Druhl et al, (2001) confirms that the positive effects of Transcendental Meditation and TM-Sidhi programs have been verified in over 500 scientific research studies, conducted over the past 40

years at over 200 independent universities and research institutions in 20 countries. He further states that a close coordination between mind and body results in improved functioning of the physiology, allowing better integration of the creative qualities of universal intelligence into the individual mind.

MEDITATION FRAMEWORK

Stage 1 - Internal and External Meditation Factors

Framework 1 broadly outlines the benefits of meditation in two different categories i.e. internal factors and external factors. Internal factors are the amalgamation of studies conducted within the arch of the health sciences discipline which claim to have positive benefits on the human mind and body. External factors are the combination of meditation studies conducted around family and surroundings which yield positive benefits within similar domain as shown in the framework.

 INSERT FRAMEWORK 1 ABOUT HERE

Framework 1, which is comprised of thirty one studies, demonstrates the association of an employee's internal and external factors, which are the co-joined and interrelated physical and mental states. It is the aim of this paper to review the meditation studies contributing workplace creativity. We propose, this broader association of internal and external factors may impact on an individual's workplace creativity, as workplace creativity is not an independent phenomenon rather it is a holistic and interdependent occurrence. The general barriers to workplace creativity may be stress, physical and psychological health, depression, inability to manage emotions and deterioration of personal and familial relationship may be minimised by practising meditation as shown in framework 1.

We also acknowledge that the benefits of meditation may be inconsistent from individual to individual which means there may be variance in the positive effects of meditation. But the healing property of meditation cannot be denied and may be seen as a ripple effect on one's mind and body. We propose in this first stage that there is a fundamental universal rhythm between Internal and

External Meditation Factors, which can contribute to the holistic workplace creativity. For example meditation has been extensively researched in the health sector due to its potential benefits on an employee's psychological and physiological well being as shown in framework 1. We cited reliable and empirically tested meditation literature to highlight the benefits of meditation. The National Centre for Life Course Research (NCLR) in Dunedin (Hartshorn, 2007) uncovered in their global studies that:

- USA and European countries estimated spending between 5 and 10% of GNP per annum addressing workplace stress which according to them reached epidemic proportions.
- A 2002 survey conducted in the United Kingdom, found that work related stress and poor mental health passed backache as the leading cause of long-term sickness absence in industry, accounting with approximately 40% of the invalidity benefit being paid by the government.
- A Survey was conducted in United Kingdom in 2006, found that managers who felt productive took 2.5 sick days leave whereas managers who felt less productive took 10 days off per year.
- In a 2008 survey conducted in New Zealand, it was estimated that 30% of New Zealand workers are "happy in their work", and that 41% are unhappy and unsatisfied with their job.
- Women with high psychological job demands were 75% more likely to suffer from depression or anxiety than women with the lowest psychological job demands.

Another study conducted by Econtech (2008) on behalf of Medibank Private in Australia addressed the costs associated with stress, absenteeism and productivity and uncovered;

- Workplace stress costs the Australian economy \$14.81 billion annually
- Stress related absenteeism directly cost Australian employers \$10.11 billion annually
- Workplace stress sees 3.2 days per worker are lost each year
- Annual productivity loss in Australia is 1.36 %

- \$10.11 billion direct cost to employers
- Total cost on economy (GDP) is 1.01%

(Source: Medibank, 2008)

The justification to include workplace stress and related data is to compare and contrast it with studies incorporated in Framework 1. We propose that meditation in the workplace fulfils two goals. The first goal being that meditation relaxes the mind and body and assists with treating a wide range of disorders. Secondly, workplace creativity, mind and body are united and interdependent on each other, therefore they share a certain crucial relationship with each other. This framework provides a holistic picture of various cohesive disorders taking place in any human mind and body (physical, psychological, family and surroundings) is improved by meditation. Thus, meditation is a reliable tool for mind-body ailments as Capra (1982 pp 385) states that correct breathing is one of most important aspect of relaxation and reviewed as a deep psychosomatic balance technique for the mind.

Honsberger (1973) a German researcher discovered four types (beta, theta, alpha and delta) of electrical voltages which emanate from the brain. When engaging in deep meditation practices, alpha waves are generated which are highly creative thus it is less likely that one will fall victim to anxiety and stress related disease. Therefore, creativity is a by-product of alpha brain waves and creative people have different brain waves from other non-creative people. Thus, at this point we note that with more alpha brain waves there are higher changes to be exceedingly creative, hence the application of meditation in enhancing workplace creativity is highly sensible. Alpha waves are also helpful in peak performance and creativity which is a desired aptitude in the workplace (Schwartz , 1996). The following stage 2 framework compiles the meditation related workplace creativity studies existing in literature.

Stage 2 - Meditation Workplace Creativity Framework

This second stage framework is supported by 11 studies, provides the first comprehensive consolidation of the disparate meditation and workplace creativity literature, which was concentrated between 1973-2009. For example, meditation results in moral imagination (Forge,2004), increased

self-compassion (Shapiro et al,2005), moral maturity (Nidich et al,1983) and development of personality (Nidich et al.,1972). Although, all the studies included in this framework does not relate directly to workplace creativity but authors note that the spillover effect of meditation cannot be ignored in harnessing workplace creativity if not directly then indirectly. We also acknowledge that these meditation studies were submerged in the literature and with the changing trends in business and management disciplines, this concept is of great importance to the academe, organizations, workplace and future studies. To our knowledge, this is the first time that more than forty six studies from 3 different disciplines and eras have been compiled to inform the potential relationship between meditation and creativity.

INSERT FRAMEWORK 2 ABOUT HERE

The second conceptual framework contributes to the literature by integrating 11 meditation studies addressing the significance of meditation in improving workplace creativity which has not been conducted before. Although not a workplace example, a longitudinal study conducted by Orme-Johnson and So (2001) on 362 high school students in three different schools in Taiwan found that the regular practice of TM (Transcendental Meditation) for 15-20 minutes twice a day improved cognitive ability. The study utilized the following variables: Test for Creative Thinking-Drawing Production (TCT-DP); Constructive Thinking Inventory (CTI); Group Embedded Frameworks Test (GEFT); State and Trait Anxiety (STAI); Inspection Time (IT) and Culture Fair Intelligence (CFIT). This figure also reveals that there is an inconsistency in the development of meditation related workplace creativity studies. Therefore the literature shows that there is a gap in studies addressing workplace creativity.

Stage 3 -Micro Meditation Workplace Creativity Framework

Framework 3 depicts the seminal work shows a micro synthesis of the literature from two different research eras: The first being the Rationalist era of 1970s, dominated by approaches such as time motion studies addressing workplace creativity confined to personality characteristics, mental flexibility and creative achievement and the recent literature is dominated by holistic approaches to

creativity, which extends to addressing the organization, team and workplace environments (Andriopoulos, 2001).

INSERT FRAMEWORK 3 ABOUT HERE

In the third stage, we cited Frew's (1974) seminal study addressing meditation in the workplace, which predominantly focused on performance and productivity with some reference to human factors such as better workplace relations. In contrast, the recent literature by Moore and Malinowski (2009) and Davis (2008) who addressed feelings-as-information theory and physiological arousal theory are illustrative of the recent humanistic era. Thus, Frew's (1974) contribution to the literature in the rationalist era was significantly ahead of his time and may explain why other studies did not follow suit and pursue addressing workplace meditation until 30 odd years later. Therefore, we have analysed the three diverse homogeneous studies from different decades and for the first time.

Stage 4 - Meditation and Workplace Creativity Relationship

The 'Meditation and Workplace Creativity Intervention Framework' as shown in Framework 4 below, illustrates meditation as an intervention, which provides the climate for a balanced approach necessary to cultivate and advance an employee's workplace creativity. This innovative conceptual framework is depicted in an equation ' $NF+M = C \rightarrow WC$ ' where 'Negative Factors (NF) + Meditation (M) = Change facilitating Workplace Creativity (WC)'. Although this equation requires an empirical investigation, it can be viewed as a possible diagnostic tool by future studies to uncover the potential relationship between meditation and workplace creativity as evolved from the previous three frameworks. The fourth framework illustrates the crux of this paper that the negative characteristics hampering workplace creativity such as stress, anxiety, absenteeism and ego may be reduced and transformed into positive merits when engaging in meditation activity. Thus, this framework discusses the change due to the intervention of meditation and its potential to enhance workplace creativity.

INSERT FRAMEWORK 4 ABOUT HERE

Thus, from the literature, we may deduce that engaging in meditation practice can impact the diverse domain as suggested in framework 1 & 2. It is important to sight the benefits of meditation and its relationship with creativity, which can be direct or holistic in manner.

CONCLUSION

This conceptual paper embraced a cross-disciplinary literature review and consolidated the disparate international meditation literature to provoke new thinking about the meditation and workplace creativity relationship. The analysis of this review facilitated in systematically building and developing the four staged frameworks in the pursuit of answering the research question underpinning this exploratory conceptual paper, thereby uncovering the relationship between meditation and workplace creativity.

To our knowledge, this is the first paper that systematically analysed the literature across three disciplines to document the holistic benefits of meditation within the workplace.

We conclude that embracing meditation in the workplace is optimal to foster a climate of workplace creativity. The equation ' $NF + M = C \rightarrow WC$ ' generated in the final 'Workplace Creativity Intervention Framework' provides a valuable conceptual contribution to the academic literature and to practitioners who may utilize the equation in their workplaces as a diagnostic tool to enhance meditation and workplace creativity relationships. This equation could raise a manager's awareness that the workforce is comprised of several interrelated variables beneficial to personal and organizational creativity and thus shed insights and understanding into the potential advantages of, and relationships between, meditation practices and workplace creativity.

LIMITATION AND FUTURE RESEARCH

A limitation of this conceptual paper is that the literature review was conducted across three disciplines. Future studies may like to consider analysing the meditation and creativity literature published across other disciplines and disaggregating the various types of meditation to uncover any differences in their relationships to creativity.

REFERENCES

- Alexander CN, Langer EJ, Newman RI, Chandler HM & Davies JL (1989) Transcendental Meditation, Mindfulness, and Longevity: An Experimental Study with the Elderly, *Journal of Personality and Social Psychology*, 57 (6) : 950-964.
- Andriopoulos C (2001) Determinants of Organisational Creativity: A Literature Review, *Management Decision*, 39(10):834-840.
- Buse CD & Andrasi F (2009) Behavioural Medicine for Migraine, *Neurologic Clinics*, 27 (2): 445-465.
- Capra F (1982) *The Turning Point*, Fontana Paperbacks, London.
- Carlson LE, Speca M, Patel KD & Goodey E (2003) Mindfulness Based Stress Reduction in Relation to Quality of Life, Mood, Symptoms of Stress, and Immune Parameters in Breast and Prostate Cancer Outpatients, *Psychosom*, 65: 571-581.
- Cullen LT (2006) How to Get smarter, one breadth at a time. *Time Magazine*.167(2) <http://www.time.com/time/magazine/article/0,9171,1147167,00.html> (Accessed on November 12th, 2009).
- Cooper MJ & Aygen MM (1979) Transcendental Meditation in the Management of Hypercholesterolemia, *Journal of Human Stress*, 5(4):24-27.
- Davidson RJ, Kabat-Zinn J, Schumacher J, Rosenkranz M, Muller D, Santorelli SF, Urbanowski F, Harrington A, Bonus K & Sheridan JF (2003) Alterations in Brain and Immune Function Produced by Mindfulness Meditation, *Psychosomatic Medicine*, 65: 564-570.
- Davis MA (2008) Understanding the Relationship between Mood and Creativity: A Meta-Analysis, *Organisational Behaviour and Human Decision Process*,108 (1): 25-38.
- Davis GA (1992) *Barriers, Blocks, and Squelchers: Why We Are Not More Creative*, Badger Press, University of Wisconsin.
- Diener E (1984) Subjective Well Being, *Psychological Bulletin*, 95: 542-575.
- Dillbeck MC, Landrith G & Orme-Johnson D (1981) *The Transcendental Meditation Program and Crime Rate Change in a Sample of Forty-Eight Cities* in Roth R (1987) *Transcendental Meditation*, Donald I. Fine. Inc., New York.
- Dillbeck MC & Davies J (1987) Intervention studies on Reduction of Domestic and International Violence through Collective Consciousness, In Roth R (1987) *Transcendental Meditation*. Donald I. Fine Inc., New York.
- Dillbeck MC (1982) *Meditation and Flexibility of Visual Perception and Verbal Problem Solving*, In Roth R (1987) *Transcendental Meditation*, Donald I. Fine Inc., New York.
- DeKlerk JJ (2004) Spirituality in practice: a study on the relationship of meaning with work commitment and motivation, In Driver M (2007) *Meaning and Suffering in Organizations*. *Journal of Organizational Change Management*, 20 (5): 611-632.
- Dillbeck MC & Orme-Johnson DW (1987) *Physiological Differences between Transcendental Meditation and Rest*, In Roth R (1987) *Transcendental Meditation*. Donald I. Fine Inc., New York.

- Domino G (1977) Transcendental Meditation and Creativity, *Journal of applied Psychology*, 62(3):358-362.
- Druhl K, Langstaff J & Monson N (2001) Towards a synthesis of classical and quantum paradigms: Vedic science as a holistic approach to organizational change management, *Journal of Organizational Change Management*, 14 (4):379-407.
- Easwaran E (1979) *Meditation: Commonsense Directions for an Uncommon Life*, London Taylors and Francis.
- Econtech (2008) *Economic Modelling of the Cost of Presenteeism in Australia*”, Commissioned by Medibank Private,
[http://www.econtech.com.au/information/Social/Medibank Presenteeism FINAL.pdf](http://www.econtech.com.au/information/Social/Medibank_Presenteeism_FINAL.pdf) (Accessed on Sep6th, 2010).
- Edwards CG (2000) *HMS Beagle: The BioMedNet Magazine*.
<http://ksjs1.sjsu.edu/Wong/ca175b/CanYouBeMoreCreative.pdf> (Accessed on November 6th, 2010).
- Eppley K, Abrams AI & Shear J (1985) *Effects of Meditation and Relaxation on Trait Anxiety: A Meta-Analysis*, In Roth R (1987) *Transcendental Meditation*. Donald I. Fine. Inc., New York.
- Fisher R (2006) Still Thinking : The case for meditation with children, *Thinking skills and creativity*, 1(2):146-151.
- Forge P (2004) Cultivating Moral Imagination through Meditation ,*Journal of Business Ethics*, 51:15–29.
- Frew DR (1974) Transcendental Meditation and Productivity, *Academy of Management Journal*, 17(2): 362-368.
- Giacalone RA & Jurkiewicz CL (2003) *Handbook of Workplace Spirituality and Organisational Performance*, M.E. Sharpe, London.
- Goleman D (2003) *Destructive Emotions: How can we overcome them? A Scientific Dialogue with the Dalai Lama*, Bantam Books. New York, NY.
- Hartshorn K (2007) *Stress and Mental Health: What’s the Link*, National Centre for Life Course Research, University of Otago, Dunedin.
[http://www.lifecourse.ac.nz/documents/WorkStress Powerpoint.pdf](http://www.lifecourse.ac.nz/documents/WorkStress_Powerpoint.pdf) (Accessed on November 7th, 2010)
- Hewitt J (1977) *The Complete Yoga Book*. Schocken Books, New York.
- Homes DS, Solomon S, Cappo BM & Greenberg JL (1983) Effects of Transcendental Meditation versus Resting on Physiological and Subjective Arousal, *Journal of Personality and Social Psychology*, 44(6):1245-1252.
- Honsberger R & Wilson AF (1973) *The Effect of Transcendental Meditation upon Bronchial Asthma*, In Roth R (1987) *Transcendental Meditation*, Donald I. Fine. Inc., New York.
- Jacob J, Jovic & Brinkerhoff M (2008) Personal and Planetary Well-being: Mindfulness Meditation, Pro-environmental Behaviour and Personal Quality of Life in a Survey from the Social Justice and Ecological Sustainability Movement, *Social Indicators Research*, 8.
- Jeving R, Wilson AF & Davidson JM (1978) *Adrenocortical Activity during Meditation*, In Roth R (1987) *Transcendental Meditation*, Donald I. Fine. Inc., New York.

Joy S (2004) Innovation motivation: The need to be different, In Horan R (2009) The Neuropsychological Connection between Creativity and Meditation, *Creativity Research Journal*, 21(2-3): 199-222.

Judith A (2008) *Chakras: Wheels of Life*. Jaico Publishing House, Mumbai.

Kinder HS (1979) The Influence of Meditation Relaxation Technique on Group Problem-Solving Effectiveness, *Journal of Applied Behavioural Science*, 15: 527-533.

Liou KT, Sylvia RD & Brunk G (1990) Non-work factors and job satisfaction, revisited in Driver M (2007) Meaning and Suffering in Organizations, *Journal of Organizational Change Management*, 20(5):611-632.

Losyk B (2005) *Get A Grip*, New Jersey, John Wiley & Sons. Inc.

Maslow A (1967) *The creative attitude*, In Horan R(2009) The Neuropsychological Connection between Creativity and Meditation, *Creativity Research Journal*, 21(2-3): 199-222.

McNaughton RD (2003) *The Use of Meditation and Intuition in Decision-Making: Reports from Executive Mediators* (Unpublished Doctoral Dissertation), Fielding Graduate Institute, Santa Barbara, California.

Medibank Private Australia (2008) *The cost of workplace in Australia*. <http://www.medibank.com.au/Client/Documents/Pdfs/The-Cost-of-Workplace-Stress.pdf> (Accessed November 8th, 2010).

Michaels RR, Huber MJ & McCann DS (1976) Evaluation of Transcendental Meditation as a Method of Reducing Stress, *American Association for the Advancement of Science*, 192:1242-1244.

Monahan RJ (1977) *Secondary Prevention of Drug Dependence through the Transcendental Meditation Program in Metropolitan Philadelphia* in Roth R (1987) *Transcendental Meditation*, Donald I. Fine. Inc. New York.

Moore A & Malinowski P (2009) Meditation, Mindfulness and Cognitive Flexibility, *Consciousness and Cognition*, 18:176-186.

Neff K (2004) Self Compassion and Psychological Well Being, *Constructivism in the Human Sciences*, 9: 27-37.

Nidich SI, Ryncarz RA, Abrams AI, Orme-Johnson DW & Wallace RK (1983) Kohlbergian cosmic perspective responses, EEG coherence, and the Transcendental Meditation and TM-Siddhi program, *Journal of Moral Education*, 12(3):166-73.

Nidich S, Seeman W & Banta T (1972) *Influence of Transcendental Meditation on a Measure of Self-Actualization*, In Roth R (1987) *Transcendental Meditation*, Donald I. Fine Inc., New York.

Ospina MB, Bond TK, Karkaneh M, Tjosvold L, Vandermeer B, Liang Y, Bialy L, Hooton N, Buscemi N, Dryden DM, Klassen TP (2007) *Meditation Practices for Health: State of the Research*, In Pace TWW, Negi LT, Adame DD, Cole SP, Sivilli TI, Brown,TD, Issa MJ & Raison CR (2009) Effect of Compassion Meditation on Neuroendocrine, Innate Immune and Behavioural Responses to Psychosocial Stress, *Psychoendocrinology*, 34(1) :87-98.

Orme-Johnson DW & Schneider R (1987) *Reduced Health Care Utilization in Transcendental Meditation Practitioners*, In Roth R (1987) *Transcendental Meditation*, Donald I. Fine Inc., New York, 54.

Orme-Johnson DW & Haynes CT (1981) EEG Phase Coherence, Pure Consciousness, Creativity and TM-Sidhi Experience, *Neuroscience*,13: 211-217.

Orme-Johnson & So KT (2001) Three Randomized experiments on the Longitudinal Effects of the Transcendental Meditation Technique on Cognition, *Intelligence*, 29: 419-440.

Rampersad H (2007) Enhance Self-effectiveness by Breathing and Silence Exercise. *Training and Development Methods*, 21: 401.

Roth R (1987) *Maharishi Mahesh Yogi's: Transcendental Meditation*, New York: Donald I. Fine.

Sarath ED (2003) Meditation in Higher Education: The Next Wave? *Innovative Higher Education*,27(4):215-233.

Schwartz T (1996) *What really matters: Searching for wisdom in America*, Bantan Books, Sydney.

Schmidt-Wilk,J, Heaton D & Steingard DS (2000) *Higher education for higher consciousness*, In Steingard DS & Dale EF (2007) *Towards a Spirituality Integral theory of Management* in edited book by Biberman J & Whitty MD (2007) *At work spirituality matters*, University of Scranton Press, London.

Sapiro DH (1985) Clinical Use of Meditation as a Self-Regulation Strategy: Comments on Holmes's Conclusions and Implications, *American Psychologist*, 40(6):719-722.

Shapiro SL, Astin JA, Bishop SR & Cordova M (2005) Mindfulness-Based Stress Reduction for Health Care Professionals: Results from a Randomized Trial, *International Journal of Stress Management*,12:164-176.

Tjoa AS (1975) *Meditation, Neuroticism and Intelligence: A Follow Up*, In Roth R (1987) *Transcendental Meditation*. Donald I. Fine, Inc., New York.

Wallace RK (1971) *A Wakeful Hypometabolic Physiologic State*, In Roth R (1987) *Transcendental Meditation*, Donald I. Fine Inc., New York.

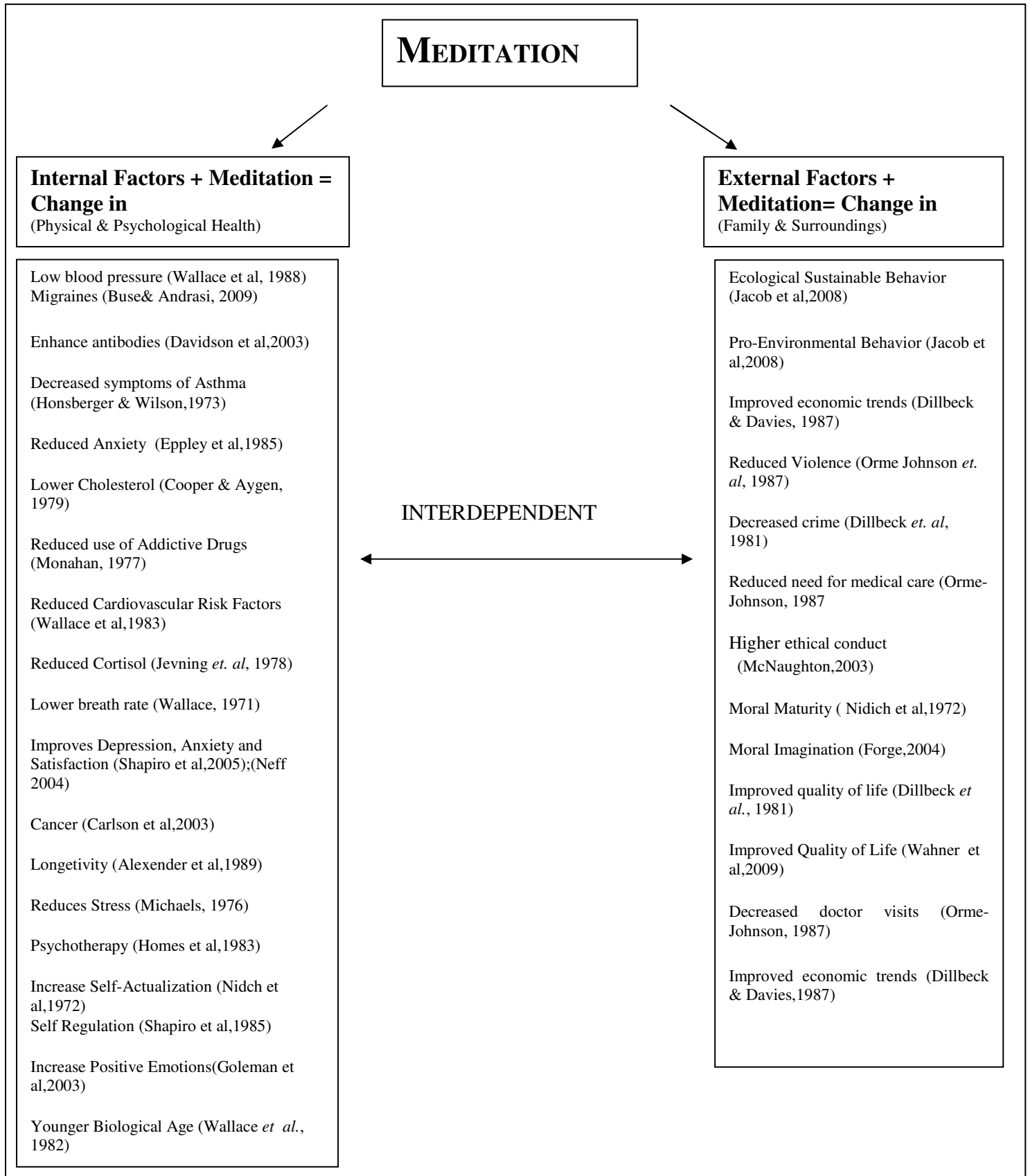
Wallace RK, Silver J, Mills PS, Dillbeck M & Wagoner D(1983) *Systolic Blood Pressure and Long Term Practice of the Transcendental Meditation and TM-Siddhi Program: Effects of TM on Systolic Blood Pressure*, in Roth R (1987) *Transcendental Meditation*, Donald I. Fine Inc., New York.

Wallace RK, Dillbeck M, Jacobe E & Harrington B (1982) *The Effects of the Transcendental Meditation and TM-Siddhi Program on the Aging Process* , In Roth R (1987) *Transcendental Meditation*. Donald I. Fine, Inc . New York.

Wahner-Roedler D, Chon T, Loehrer L & Soo A (2009) Meditation to Reduce Stress and Improve Quality of Life: A Feasibility Study, *The Journal of Science and Healing*,5: 148-160.

Wilensky H (1960) Work Careers and Social Integration, *International Social Science*,12: 543-560.

Framework 1: INTERNAL AND EXTERNAL MEDITATION FACTORS

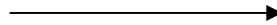


Source: Authors

Framework 2: MEDITATION & WORKPLACE CREATIVITY FRAMEWORK

WORKPLACE CREATIVITY

**Individual + Meditation > Workplace
Creativity = Change**

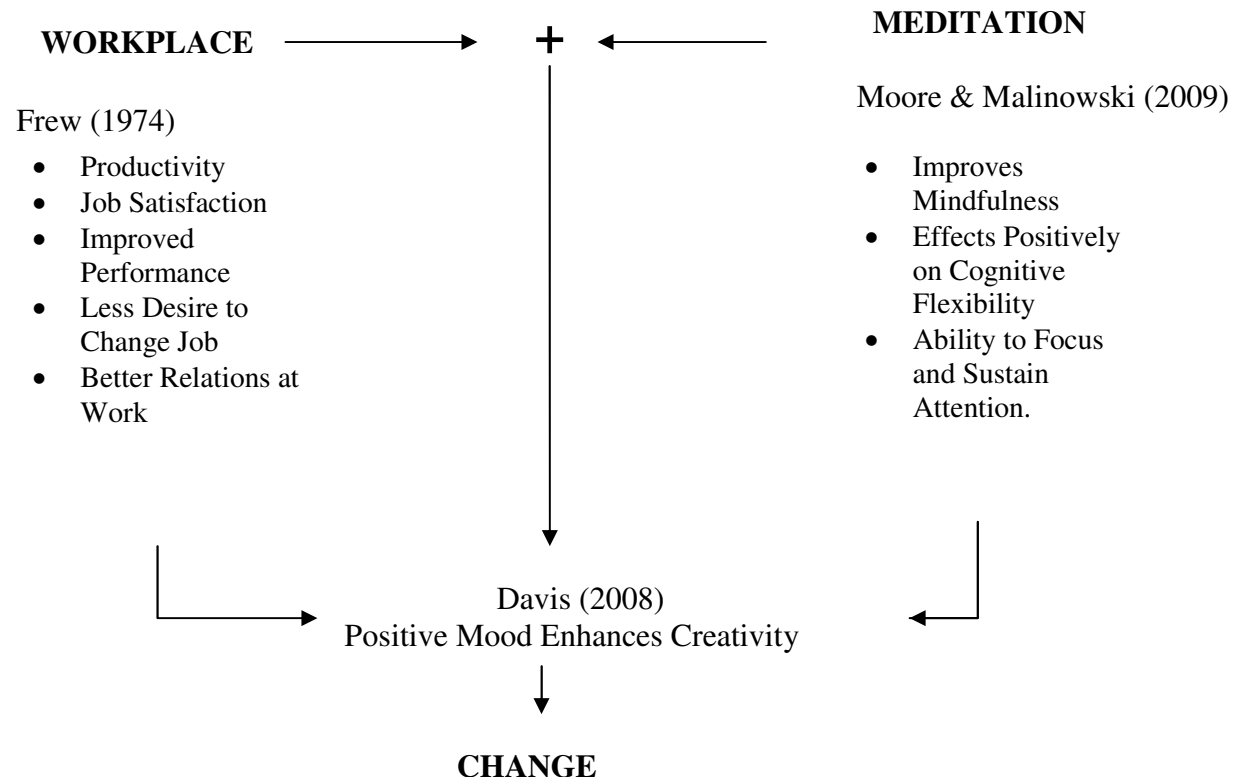


- Development of Personality (Nidich et al,1972)
- Problem Solving (Kinder, H.S,1979)
- Increased Learning Ability (Dillbeck, 1982)
- Moral Maturity (Nidich et al,1983)
- Heightened Clarity of Perception (Saradth, 2003)
- Creativity, Fluidity in problem Solving (Saradth, 2003)
- Increased Intelligence (Tjoa, 1975)
- Moral Imagination (Forge, 2004)
- Increased Self-Compassion (Shapiro et al, 2005)
- Focused Attention (Ospina et al, 2007)
- Increase Mindfulness, Cognitive flexibility (Moore & Malinowski, 2009)

Source: Authors

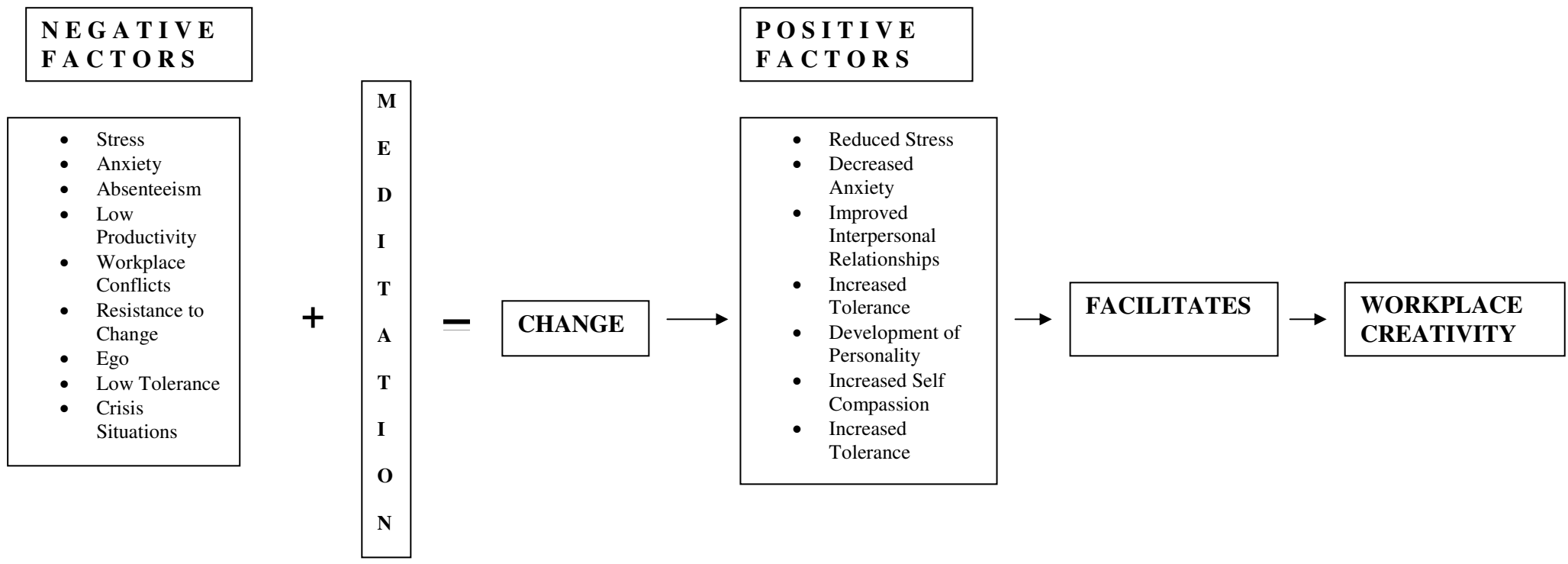
Framework 3: MICRO MEDITATION WORKPLACE CREATIVITY FRAMEWORK

WORKPLACE + MEDITATION = CHANGE



Source: Authors

Framework 4: MEDITATION AND WORKPLACE CREATIVITY INTERVENTION MODEL



NF + M = C → WC