

Running head: EXISTENTIAL MINDFULNESS PROGRAM FOR TEACHERS

Enhancing Well-being through the Existential Mindfulness Program for Teachers (EMPT): A  
mixed methods study among HK teachers

by

LY, Sau Ting Ann

A Thesis Submitted to

The Education University of Hong Kong

in Partial Fulfillment of the Requirement for  
the Degree of Doctor of Education

June 2021



The Education University  
of Hong Kong Library

For private study or research only.  
Not for publication or further reproduction.

### **Statement of Originality**

I, LY, Sau Ting Ann, hereby declare that I am the sole author of the thesis and the material presented in this thesis is my original work except those indicated in the acknowledgement. I further declare that I have followed the Institute's policies and regulations on Academic Honesty, Copy Right and Plagiarism in writing the thesis and no material in this thesis has been published or submitted for a degree in this or other universities.

June 2021



### Abstract

Research has shown that mindfulness-based interventions are effective in promoting well-being of clinical populations. However, limited research has been conducted to examine the effectiveness of mindfulness-based interventions for teachers. Furthermore, existing mindfulness-based interventions have mostly focused on the practical element of mindfulness without giving proper attention to its rich existential context rooted in the Buddhist tradition. This study sought to address this gap by developing and evaluating an existential mindfulness program for teachers (EMPT). The EMPT consists of two components: (1) the practical component, which involves various kinds of guided mindfulness meditation; and (2) the existential component, which involves exploration of existential concerns at a personal level. The program was specifically designed to improve teachers' mindfulness and well-being and reduce their ill-being. A mixed-methods research design was employed. For the quantitative part, the research questions focused on examining whether EMPT increased mindfulness and well-being and whether it reduced ill-being. For the qualitative part, the research questions focused on examining the participants' subjective experiences of the EMPT program, as well as their suggestions to improve the program. The study comprised of two groups of participants. The first group were 15 students who were studying various programs at the university (U Group). The second group was composed of ten teachers recruited from a Kindergarten (KG Group). Questionnaires that measure mindfulness, well-being, and ill-being were administered one week prior to the implementation of the EMPT, and the same questionnaires were administered again one week after the intervention. Paired *t*-tests were used. For the qualitative part, focus group interviews were conducted at the final sessions of each group. With the U Group, quantitative findings showed that EMPT was effective in partially enhancing key dimensions of mindfulness and well-being and reducing ill-being. No significant effects were found with the KG Group. Qualitative results indicated that for the U

Group participants, their exposure to the practical component of EMPT enabled them to have an increased awareness of the present moment, as well as increased capacity to refrain from over-identifying with negative mental states. They also reported gaining existential insights on how they relate to themselves, others, and to the transcendent. For the KG group, the participants perceived the EMPT as useful for relaxing and destressing. They also viewed the program as an important venue for emotional release and strengthening collegiality. Suggestions focused on highlighting the personal relevance of the program and tailoring it to the participants' existential needs. Overall, the EMPT was more effective for the U Group than the KG Group due to the differences in how the two groups were recruited and how the participants viewed the program. This study has important theoretical and practical implications. In terms of theory, this study presents the first attempt to integrate existential concerns with typical mindfulness-based trainings for teachers. In terms of practice, this study provides a cost-effective and theoretically informed approach to improving Hong Kong teachers' well-being and reducing their ill-being. Future research can focus on examining the mechanisms behind the intervention's efficacy; improving and refining the program content and delivery; and following participants over a longer time period to test the program's sustainability.

*Keywords:* Existential Mindfulness Program for Teachers; existentialism, mindfulness, teacher well-being

### Acknowledgement

First and foremost, I would like to express my sincere gratitude towards my Principal Supervisor, Dr. Susanna Yeung and my Associate Supervisor, Dr. Ronnel King. Without their staunch support in every step towards the completion of this thesis, I could not have done what I did.

My thankfulness goes to the following individuals and institutions:

Graduate School, Education University of Hong Kong; thanks to all the academic as well as administrative staff members. Special thanks to Dr. Chan Anita, Prof. Fairbrother Gregory, and Dr. Wong Ping Ho who have inspired me in so many ways.

PoPE Lab Research Team, thank you for the support of all the members, special thanks to Jen, Joseph, and Norman.

The individuals who have joined the intervention program of my research. I wish each of them well.

I am very blessed to have so many dear friends who always stand by me to share laughter and tears together. The list is too long and can only name a few here: Angela, Dorothy, Gary, Jamphel, Nikki, Ofelia, Susanna, and Yin Chun. Thankfulness extends to my two beloved dogs, Bochi and Milky, who taught me a lot about love and trust.

Last but not least, my deepest gratitude towards my spiritual teacher Lama Chan and his wife for their guidance, compassion and wisdom. Also, I am eternally grateful to my parents, siblings as well as my partner Ernest, who have more confident in me than I have in myself. Thank you for being my backbone and my torchlight.

## Table of Contents

<i>Statement of Originality</i> .....	<i>i</i>
<i>Abstract</i> .....	<i>ii</i>
<i>Acknowledgement</i> .....	<i>iv</i>
<i>Table of Contents</i> .....	<i>v</i>
<i>List of Abbreviations</i> .....	<i>viii</i>
<i>List of Figures</i> .....	<i>ix</i>
<i>List of Tables</i> .....	<i>x</i>
<i>Chapter 1: Introduction</i> .....	<i>1</i>
<i>Chapter 2: Literature Review</i> .....	<i>5</i>
<b>The Meaning of Mindfulness</b> .....	<b>5</b>
Secularization of mindfulness and the decontextualization from existential concerns. ....	6
Contemporary adoption of mindfulness.....	8
<b>Mindfulness and Its Ingredients</b> .....	<b>8</b>
Mindfulness within the Buddhist tradition. ....	8
Mindfulness-based interventions for well-being. ....	11
<b>Existentialism, Mindfulness, and Well-being</b> .....	<b>23</b>
Well-being.....	29
Ill-being.....	31
<b>Research Aims, Questions and Hypotheses</b> .....	<b>32</b>
The research gaps.....	32
The research problem.....	34

The research questions.....	34
The research hypotheses.....	35
<b>Chapter 3: Methods.....</b>	<b>36</b>
<b>Research Design .....</b>	<b>36</b>
<b>Research Participants and Procedures .....</b>	<b>37</b>
Participants.....	37
Procedures.....	38
<b>Intervention .....</b>	<b>41</b>
<b>Instruments.....</b>	<b>45</b>
Quantitative measures.....	45
Qualitative data collection.....	48
<b>Data Analysis .....</b>	<b>50</b>
<b>Chapter 4: Results.....</b>	<b>53</b>
<b>Quantitative results.....</b>	<b>53</b>
Pre and post intervention results for the U Group .....	53
Pre and post intervention results for the KG Group .....	60
<b>Qualitative results .....</b>	<b>62</b>
Themes from the U Group.....	62
Themes from the KG Group.....	75
<b>Chapter 5: Discussion.....</b>	<b>83</b>
<b>Discussion of findings of the current study.....</b>	<b>83</b>
Findings of the quantitative study.....	83
Findings of the qualitative study.....	85

<b>Implications of current study.....</b>	<b>96</b>
Practical implications of current study.....	96
Theoretical implications of current study .....	101
<b>Limitations of current study .....</b>	<b>103</b>
Limitations related to the intervention.....	103
Limitations related to the methodology.....	106
<b>Conclusion .....</b>	<b>109</b>
<b><i>References .....</i></b>	<b><i>111</i></b>
<b><i>Appendix A: FFMQ inventory.....</i></b>	<b><i>126</i></b>
<b><i>Appendix B: MHC-SF.....</i></b>	<b><i>129</i></b>
<b><i>Appendix C: MBI.....</i></b>	<b><i>130</i></b>
<b><i>Appendix D: PANAS-SF.....</i></b>	<b><i>132</i></b>
<b><i>Appendix E: PHQ-4.....</i></b>	<b><i>133</i></b>
<b><i>Appendix F: Invitation letter for EMPT.....</i></b>	<b><i>134</i></b>
<b><i>Appendix G: Informed Consent Form.....</i></b>	<b><i>136</i></b>
<b><i>Appendix H: Guiding questions for focus group interview .....</i></b>	<b><i>138</i></b>



## List of Abbreviations

- ACT – Acceptance and Commitment Therapy
- CARE – Cultivating Awareness and Resilience in Education
- DBT – Dialectical Behavior Therapy
- DP – depersonalization
- EE – emotional exhaustion
- EMPT – Existential Mindfulness Program for Teachers
- ET – Existential Therapy
- FFMQ – Five Facets of Mindfulness Questionnaire
- KG Group – teachers from the Kindergarten Group
- MBCT – Mindfulness-based Cognitive Therapy
- MBET – Mindfulness-based Existential Therapy
- MBI – Maslach Burnout Inventory
- MBI – mindfulness-based interventions
- MBSR – Mindfulness Based Stress Reduction
- MBWE – Mindfulness-based Wellness and Education
- MHC-SF – Mental Health Continuum-Short Form
- MM – mindfulness meditations
- PA – personal accomplishment
- PANAS-SF – Positive and Negative Affect Schedule – Short Form
- PHQ-4 – Ultra-brief Screening Scale for Anxiety and Depression
- RCT – randomized controlled trials
- SMART – Stress Management and Relaxation Techniques
- U Group – teachers from the University Group
- XXT – Existential Experimental Psychology

## List of Figures

Figure 1	Heuristic Framework of the Current Study	37
Figure 2	Timeline of EMPT Implementation	40
Figure 3	Method of Data Collection	50

## List of Tables

Table 1	EMPT Protocol	41
Table 2	Pre And Post-Intervention Pairwise Correlation	54
Table 3	U Group FFMQ Paired <i>t</i> -tests	55
Table 4	U Group MHC-SF Paired <i>t</i> -tests	56
Table 5	U Group PANAS-SF Paired <i>t</i> -tests	57
Table 6	U Group MBI Paired <i>t</i> -tests	58
Table 7	U Group PHQ-4 Paired <i>t</i> -tests	58
Table 8	KG FFMQ Paired <i>t</i> -tests	59
Table 9	KG Group Well-being and Ill-being Paired <i>t</i> -tests	60

## Chapter 1: Introduction

Teaching is known to be a stressful profession (Beers, Jennings, Roeser & Skinner, 2012; Cangas, Franco, Manas & Moreno, 2010). This is especially true in Hong Kong, which has gone through waves of educational reform in the past two decades leading to higher levels of stress and increased burnout (Cheng, 2015; Wong, Tang & Cheng, 2014). Consequently, Hong Kong teachers are constantly facing abrupt changes within their professional niche that may lead them to question their professional identities, as well as the meaning of being a teacher in relation to their personal aspirations. Furthermore, at times, the conflicting professional roles and expectations from the society may undermine Hong Kong teachers' sense of volition. Obviously, these kinds of deeper level, psychological challenges – in contrast to more pragmatic challenges such as lack of resources, less than optimal teacher-student relationships – have more impact on teachers' well-being. Hence, it is not surprising that studies have repeatedly shown that teachers in general, and Hong Kong teachers in particular, are leaving the profession due to psychological stress and burnout (Klassen & Chiu, 2010; Larson, Cook, Fiat & Lyon, 2018; Titheradge, Hayes, Longdon, Allen, Price, Hansford, Nye, Ukoumunne, Byford, Norwich, Fletcher, Logan & Ford, 2019).

These key challenges, if left unaddressed, could negatively impact Hong Kong teachers' psychological well-being. However, to date, investigations on psychological well-being interventions for local teachers are relatively scarce. An updated systematic review and meta-analysis have examined research of distinct types of psychological interventions for improving wellbeing (Agterén, Iasiello, Lo, Bartholomaeus, Kopsaftis, Carey & Kyrios, 2021); accordingly, mindfulness-based interventions have shown the greatest efficacy in both clinical and non-clinical population. In this sense, mindfulness-based interventions could be a solution to support teachers' wellbeing. Moreover, the psychological challenges ignited by

job-related stress of the Hong Kong teaching profession is viewed as closely related to existential concerns, which give rise to existential anxiety at an individual level (Koole, Greenberg & Pyszczynski, 2016). Hence, the current research study advocates that, in order to foster Hong Kong teachers' well-being, it is essential to support local teachers to build up psychological resources to confront the existential threats raked up by professional challenges in their daily existence as teachers. In this regard, the current study focuses on the development and evaluation of an existential mindfulness-based intervention for fostering of Hong Kong teachers' well-being. The reason being that mindfulness has its roots in the Buddhist tradition, which makes use of various mindfulness techniques with the intention to address and alleviate existential sufferings (Bodhi, 2011). That is, mindfulness was originally intended for addressing existential concerns and most importantly, mindfulness has been shown to have the potential to positively change individuals' subjective experiences of their own existence (Dahl & Davidson, 2019; Wheeler, Arnkoff & Glass, 2017). To this end, carefully designed mindfulness-based interventions might address the existential component.

Studies have shown that mindfulness-based interventions (MBIs) are beneficial in fostering a wide range of well-being outcomes (Keng, Smoski & Robins, 2011; Roeser, et al., 2013; Tarrasch, Ricardo, Berger, Rony, Grossman & Daniel, 2020). However, majority of the research about effectiveness of mindfulness-based interventions pertains to clinical populations. Research studies that focus on the development and evaluation of mindfulness-based interventions for teachers are limited. Given that the professional challenges faced by teachers are specific to its own occupational conditions and, furthermore, that being able to reflect and to understand how teachers relate to their own occupational stress is an important part of professional development; a mindfulness-based intervention particularly designed for enhancing teachers' wellbeing is warranted. In this sense, both the poverty in empirical

studies of mindfulness-based interventions for teachers' wellbeing as well as the pressing need to intervene with teachers' stress are being addressed by the current research study.

The current study reports on the development and evaluation of the Existential Mindfulness Program for Teachers (EMPT), which was designed to address the aforementioned limitations. The EMPT is original in terms of integrating the practices of mindfulness with existential exploration. The rationale is that the secular usages of mindfulness have been void of the rich existential contemplation aspect of mindfulness within the Buddhist tradition. Moreover, mindfulness within the Buddhist tradition is designed to alleviate existential sufferings rather than to foster well-being. In other words, the enhancement of well-being is a by-product of the development of existential insights. With the increasing secularization of mindfulness without careful consideration of the development of existential insights behind the mindfulness practices, these mindfulness-based interventions may not be able to fully harness the potential of mindfulness to enhance growth and well-being. Hence, the current research emphasized the integration of the existential component into the program.

This study used a mixed-methods research design to answer the following research questions:

1. Did the EMPT program increase teachers' mindfulness?
2. Did the EMPT program improve teachers' well-being and reduce their ill-being?
3. What were the participants' subjective experiences with the EMPT program?  
(qualitative)
4. What improvements can be made to the EMPT program in order to better support the needs of individuals in the teaching profession? (qualitative)

This thesis consists of five main chapters. The first chapter is a literature review of research on mindfulness and well-being. The chapter also provides a thorough review of

traditional as well as the secular mindfulness and how they differ in terms of definitions and usages. Finally, the chapter spells out the theoretical basis for the development of the EMPT intervention and the significance of the current research study. The second chapter is on methodology. This includes research aims, hypotheses, questions, and the design and implementation of the study. Results are explicated in the third chapter, which provides details of both quantitative and qualitative findings. The fourth chapter is the discussion section which frames the findings within the larger research context. This chapter concludes with stating the limitations, suggesting directions for future research, and reiterating the theoretical and practical implications of the study.

## Chapter 2: Literature Review

This chapter includes a literature review in relation to mindfulness as explained in the Buddhist tradition as well as in relation to mindfulness-based interventions in modern secular usages. In particular, the effect of mindfulness-based interventions on teachers' well-being has been reviewed. In addition, the chapter includes review on existentialism; specifically, on studies that relate existential exploration with mindfulness and well-being. The literature review concludes with the unique contributions of the current research study.

### The Meaning of Mindfulness

“Mindfulness” is the English translation for the word *sati* in Pali (Rhys Davids, 1881). The exact meaning of *sati* within the Buddhist context has not been clearly defined, for two reasons: firstly, due to the pluralistic traditions of Buddhism itself and secondly, due to the fact that Buddhist scriptures are meant to be used as tools to alleviate existential sufferings rather than for knowledge accumulation. Regarding the first reason, the pluralistic nature of Buddhism traditions created variations in understanding and practices of Buddha's teaching and thereby, giving *sati* slightly different connotations depending on which aspect of Buddhist philosophy is being tapped into (Dreyfus, 2011). Regarding the second reason, since Buddhist scriptures are recorded for the purpose of pointing out ways to alleviate sufferings, the term *sati* is always mentioned in an operational manner; that is, within the specific instructions provided for achieving a certain level of consciousness experience (Bodhi, 2011). Therefore, depending on the Buddhist tradition as well as depending on the usage of *sati* within specific context of spiritual guidance, the term *sati* can carry multiple operational meanings. Nevertheless, in Buddhism, the “right mindfulness” is agreed to be involved with contemplations on the four domains of the body, feelings, states of mind, and experiential phenomena, with the sole purpose of alleviating existential sufferings via



realization of the nature of mind (Bodhi, 2011). The current research adopts the four domains of “right mindfulness” contemplation as the backbone of the design of our mindfulness intervention for teachers’ well-being. In this way, the mindfulness intervention of the current study is in accord with how “mindfulness” is being applied in its tradition.

Initially, the English term “mindfulness” has been introduced to the West when Rhys Davids (1881) first translated a Buddhist text named Mahaparinibbana Sutta from Pali to English. However, the English translation of *sati* carries many connotations, which left the meaning of this term ambiguous and loosely defined (Bodhi, 2011; Chiesa, 2013; Gethin, 2011). Furthermore, as the secular usage of mindfulness became increasingly prominent in the West over the past two decades, the definitions of this concept also began to evolve according to its various contemporary applications; yet the changing definitions of mindfulness, as it is being applied to secular therapeutic usages, signify the decontextualization of this concept from its root as well as the adaptation processes of taking on new functions. In the following two sub-sections, the evolving meaning of mindfulness is further explicated along two aspects: namely, first, the decontextualization of mindfulness practices from the existential insight development, and second, the contemporary usage of mindfulness.

**Secularization of mindfulness and the decontextualization from existential concerns.** Jon Kabat-Zinn was the first person who systematically secularized the usage of mindfulness to become the famous Mindfulness Based Stress Reduction (MBSR) intervention (2009). Accordingly, such application of mindfulness was to use the techniques derived from Buddhism, and yet, was not part of Buddhism. Nonetheless, Kabat-Zinn pointed out that it is not a coincidence that mindfulness has its root from Buddhism, as Buddhism originates from a concern over alleviating suffering via dispelling illusions. He defines mindfulness as “awareness that arises from paying attention, on purpose, in the present

moment and non-judgmentally” (1994, p.4). To him, non-judgmental refers to the open acceptance to all external and internal experiences happening moment-to-moment. This open acceptance is possible via mindfulness practices because of the understanding of two fundamental principles about human existence: firstly, “life is temporary and constantly changing” (1994, p.6), and secondly, “mental afflictions are caused by the grasping of thoughts/feelings that are judged by an individual to be good and the resentment towards thoughts/feelings that are judged by him/her as bad” (1994, p. 33). Mindfulness is, thus, used to help individuals to distance away from the compulsion to grasp and to resent; eventually, to let go of the clinging towards our judgmental attitude. From the manner Kabat-Zinn defines secular mindfulness and its applications, it is obvious that, although used for mental stress and chronic pain reduction, the secular mindfulness he proposed is taking effect within the context of existential insight exploration. Following the successful design and delivery of MBSR, there came the increasing development of all kinds of mindfulness-based interventions (MBIs). Majority of these studied MBIs have not explicitly take into account of the dimension of existential root of mental afflictions. Such negligence, if not being carefully considered could negatively impact on the effectiveness of mindfulness interventions in the process of decontextualization of mindfulness.

The current research argues that such negligence runs the risk of limiting and undermining the positive impact of mindfulness on secular usages. As of to date, different MBIs have been using different operational definitions of mindfulness (Chiesa & Malinowski, 2011). As mentioned above, the current study adheres to the four domains of “right mindfulness” in the Buddhist tradition in the intervention design, and thus, operationally adhere to the use of *sati*. Moreover, the study adopts Kabat-Zinn’s definition of mindfulness as staying fully aware of the present, moment-by-moment, in a non-judgmental manner.

**Contemporary adoption of mindfulness.** In the past two decades, mindfulness meditative techniques have been widely adopted from the Eastern philosophical Buddhist tradition to the modern societies for various secular interventional usages, including emotional disorders, chronic pain disorder, stress reduction, and well-being enhancement (Chiesa & Malinoski, 2011; Wilson, 2014). Although research has generally found positive effects of mindfulness treatment or intervention on these usages, the fact that there are so many different treatments and interventions that are being termed under the umbrella of mindfulness posts challenges to the operationalization and measurement of the effects of these so-called mindfulness treatments (Eberth & Sedlmeier, 2012; Hanley, A. et al., 2016). To further complicate matters, the widespread usage of mindfulness techniques out of the context of its original root has left many Buddhist scholars as well as researchers questioning whether these techniques are being used in oversimplified manner and whether the essence of mindfulness has remained intact in these treatments to the modern societies (Dryden & Still, 2006; Sun, 2014). As of to date, the dialogue is still ongoing, and no conclusive remarks could be made on how mindfulness should be defined and what active ingredients should secular mindfulness treatments contain in order to retain the unique effectiveness of these Eastern Buddhist originated meditative techniques. Hence, for the purpose of studying mindfulness and its positive effects on Hong Kong teachers' well-being, it is necessary to first explore the essential features of mindfulness in the current literature review.

### **Mindfulness and Its Ingredients**

The following three sections review the circumstances surrounding the original usage of mindfulness within its Eastern tradition of Buddhism as well as the contemporary adoption of mindfulness for secular usages in the West.

**Mindfulness within the Buddhist tradition.** As mentioned above, when one tries to look for the meaning of *sati* in various Buddhist texts, one only finds detailed descriptions

about the operational usages and functions of *sati* for the purpose of transforming existential suffering to become transcendent bliss and understanding. Elaborate descriptions about the definitions of *sati* are unavailable (Bodhi, 2011). In other words, within the Buddhist traditions, *sati* or mindfulness is not independently employed from all other forms of practices that lead to the simultaneous cessation of existential sufferings and the attainment of transcendent bliss. For this reason, it is crucial to understand how *sati* is practiced within the rich system of Buddhist philosophy in order to comprehend what *sati* / “mindfulness” means and how *sati* / “mindfulness” works. This understanding is especially important when “mindfulness” is being borrowed from its Buddhist tradition and increasingly being applied to different kinds of secular usages in contemporary societies. This raises the question of whether these secular applications are apt in keeping the gist of the mindfulness techniques intact and whether these applications are effectively utilizing the unique benefits of being mindful. Hence, the succeeding paragraphs present a review of the functions of *sati* / “mindfulness” within the Buddhist tradition; after this, a review on the secular usages of “mindfulness,” their impacts and the research limitations are also presented.

As explained, within the Buddhist traditions, *sati* is used for various kinds of spiritual practices that lead to the understanding of different aspects of our existence (Bodhi, 2011). To illustrate, *sati* can be roughly divided into five types and in each type of practice, practitioners apply mindfulness to achieve different spiritual goals, including staying sustained attention, open awareness, staying fully presence moment-by-moment, and meditations for insight development (Gordon, Shonin, Griffiths & Singh, 2014). Depending on the existential goal at the time of the practice, being in *sati* for a Buddhist practitioner can mean getting involved in any or all of the five types of practices. For this reason, Gordon et al. (2014) put forth the argument that there is only one *sati* because all the different ways of doing *sati* aim towards a common goal: namely, the simultaneous cessation of existential

sufferings and the attainment of transcendent bliss. In the context of the current study, the “correct mindfulness” also involves practicing towards the goal of insight development. It is essential to point out that insight development in the current context does not refer to Buddhist philosophy; instead, it refers to the development of self-understanding via addressing personal existential dilemma.

For the purpose of the current research, it is necessary to underscore some specific characteristics of *sati* that can be termed as active ingredients of mindfulness. First and foremost, *sati* is not being defined and understood as a concept with specific definitions in the Buddhist traditions (Purser & Milillo, 2015). Rather, *sati* is understood as methods in connection with the acquisition and the practice of various Buddhist philosophical principles, including impermanent, interdependent origination, non-duality, and so forth. For this reason, within the Buddhist traditions, the meaning of *sati* can only be explained as the resulting process of interlinking meditative techniques with specific philosophical view towards existence. Based on this notion of interlinking techniques and existential insights, *sati* can be understood as consisting of two working components: namely, the practical component and the existential component. The practical component includes all kinds of meditative methods that bring the practitioners’ mind to stay at the presence with clarity, serenity, openness, aliveness, and so forth. The existential component involves applying the meditative methods to explore and to address practitioners’ sense of existence. The combination of the two components of *sati* results in the transformation of practitioners’ authentic existential experience accompanied with development of deeper understanding of selves, others, and the world. Ultimately, *sati* within the Buddhist tradition is fully functioning when the practices involve both the practical as well as the existential component (Gethin, 2011). For this reason, when some practical components of *sati* are being extracted and adopted for different secular usages to achieve all kinds of goals, this raises the question of what measures have

been taken by these mindfulness-based programs to ensure that the essence of *sati* remains intact in order to actualize its effectiveness. As explained by Monteiro, Musten, and Compson (2015), the scientific concern regarding mindfulness-based programs is not so much about their authenticity as branching from Buddhist traditions; rather, the concern lies in whether these mindfulness-based programs are developed in a manner that is consistent with the active ingredients of mindfulness, such that its unique benefits could be capitalized. With this in mind, the review proceeds with research studies that involve mindfulness-based intervention programs.

**Mindfulness-based interventions for well-being.** The following three sub-sections review how mindfulness has been adopted to secular usages. Specifically, the sub-sections focus on mindfulness-based interventions in the clinical domain and mindfulness-based interventions in the domain of teaching profession. Furthermore, the third sub-section provides a review on how relevant researched mindfulness-based interventions had been evaluated.

***Mindfulness-based interventions for clinical populations.*** As mentioned above, the first migration of mindfulness from its Buddhist traditions to secular usage was introduced by a medical professor at University of Massachusetts, Jon Kabat-Zinn, who developed a Mindfulness Based Stress Reduction (MBSR) program to help alleviate chronic pain and stress-related diseases in 1990. Kabat-Zinn had been exposed to different Buddhist environments and had attended courses by Western teachers, Zen master and Tibetan Buddhist teachers (Kabat-Zinn, 1990). From these experiences, he attempted to isolate mindfulness techniques and to apply them to alleviate pain resulting from ill-being in modern societies. It is noteworthy to point out that although the MBSR appears to be in absence of any Buddhist doctrine, MBSR nonetheless contains much more than how to make use of mindfulness techniques to reduce stress and alleviate pain. In fact, in his book, Kabat-Zinn

(1990) wrote about the development of MBSR. He described various existential insights, including existence itself as impermanent as well as the inter-connectedness of humanity and life on earth as oneness. The introduction of these existential views brings awareness to the way we live, which in turn supplements the mindfulness-based practices in MBSR. In this sense, although the religious aspects of *sati* had been removed, some philosophical/existential aspects of Buddhism are still active in the MBSR. This is reflected by the four core components of the intervention: body-scan exercises, mental exercises focusing one's attention on the breath, physical exercises with focus on being aware of bodily sensations, and practicing being fully aware during everyday activities, as these MBSR core practices are congruent with the four domains of contemplation in *sati*: contemplating of the body, feelings, states of mind, and experiential phenomena (Bodhi 2011; Sun 2014). In this respect, the MBSR contains both the practical component and the existential component of mindfulness. Arguably, both components are complementing each other to produce the desirable outcome of stress and pain reduction in the MBSR.

A recent systematic review and meta-analysis examined 101 randomized controlled trials (RCTs) studies with a total of 8,135 participants from USA, Europe, Asia, and Australia on the positive impact of MBSR (de Vibe, Bjorndal, Fattah, Dyrda, Halland & Tanner-Smith, 2017). According to this study, which is by far, the largest review on MBSR, 72 studies compared MBSR to an inactive control group and 37 of these studies compared MBSR to an active control intervention. Specifically, the main finding showed that with studies that compared MBSR to an active control intervention, small but significant effects on overall mental health were found. The positive effect was robust across target groups, intervention lengths, length of follow up, compliance, and gender. Moreover, the positive effect is even larger in studies that compared MBSR with inactive control groups. Indeed, research has consistently shown that mindfulness in secular usage, at least in MBSR, has real impact on

enhancing well-being. This positive effect on well-being still exists even when compared with other non-mindful interventions. Evidently, mindfulness, when integrated properly, can uniquely contribute to mental well-being. The next level of research should then address concerns such as the specific roles that mindfulness plays in the designated intervention and the possible mechanisms that lead to its positive impact on mental well-being. The former concern is derived from the fact that the application of mindfulness for secular usages in mental health is relatively new compared to its usage in the Buddhist tradition. Hence, the appropriateness of its adaptations in secular usages warrants attention (Sun, 2014). That is, research could better inform the professional communities as well as the general public on various guiding principles of what an effective MBI should be based upon. The latter concern is of relevance because mindfulness originally takes effect in the Buddhist way of life, particularly in the process of transforming existential sufferings to bliss. Therefore, improving mental well-being is not the ultimate goal of mindfulness practices; rather, mental well-being is a by-product within the larger context of existential transformation. For this reason, it is essential to further study “how” MBIs promote well-being so that the conditions that resulted in positive effects could be replicated and even amplified.

Due to its encouraging positive effects on well-being, the MBSR became the pioneer of many-to-come MBIs in the next two decades, particularly pertaining to clinical usages. Mindfulness-based cognitive therapy (MBCT), dialectical behavior therapy (DBT), and acceptance and commitment therapy (ACT) are some of the major MBIs developed and their effects are being investigated under the scrutiny of research. These new forms of MBIs are not direct descendants from the Buddhist’s philosophical stance; in fact, each of these MBIs is developed based on its own philosophical/theoretical framework and only made use of some components of mindfulness in integration with the original therapeutic backbone (Chiesa & Malinowski, 2011). Evidently, each MBI has its own philosophical belief system



that drives its intervention and that set up the stage for the migration of mindfulness to the specific secular usage. Arguably, such migration is not a problem as long as these migrations are conducted with caution to keep the active ingredients of *sati* / mindfulness intact. For instance, in the development of any specific MBI, has there been careful and explicit considerations of what constitute the practical component and what constitute the existential component of mindfulness in the entire intervention? In other words, since *sati* integrates practices with existential contemplation, how is the case with the secular application of it? In the contemplative component of *sati*, the nature of mind, self, and the rest of world are being examined; while in the practical component of *sati*, the same content are re-experienced with guided mindfulness techniques.

In contrast, majority of the MBIs do not include any explicit existential component, let alone existential explorations that relate to the ways the clients conduct their lives. With respect to the practical aspect, some of these interventions – DBT and ACT - do not even contain any meditative practices, and even if there exist meditative practices, some core elements of meditative practices such as awareness training are in minimal or absent (Chiesa & Malinowski, 2011). This finding is not at all surprising, since majority of the clinically oriented MBIs are not concerned about the existential nature of sufferings and that their main aim is to relieve the psychological symptoms of their patients. This approach may lead to fragmentation and possible loss of the active ingredients of *sati* / mindfulness (Monteiro, Musten & Compson, 2015). To sum up, when the migrations of mindfulness into secular usages are not carried out with careful considerations of the existential richness of its root; but rather, merely employed as tools, or even reduced merely to a few tools in the entire toolbox, then, the secular applications would run the risk of limiting the effect of mindfulness on well-being.

Because of the reason that mindfulness presumably does not improve well-being directly but rather via the development of some sort of existential insights, the migration of mindfulness into secular application must consider ways to preserve the backbone of such context in order to truly capitalize the benefits of this ancient Eastern tradition. As of to date, the existing arguments for or against MBIs as well as the research studies conducted in studying the effects of MBIs on well-being have not raised the crucial intricate nature of the practical and the existential component of mindfulness. This is the first research gap that the current study identified and attempted to address.

Aside from the need to identify the active ingredients of mindfulness necessary for developing successful MBIs, it is also important to study the mechanisms via which mindfulness meditations (MM) as well as MBIs enhance mental well-being. Research with such focus would shed light upon matters such as maximizing participants' well-being through enhancing active components of MBIs, teasing apart the specific effects from the more general effects of an intervention, and further exploring the not yet discovered human potential towards well-being. A systematic review and meta-analysis on mediation studies that examined how MBSR and MBCT work to improve well-being (Gu, Strauss, Bond & Cavanagh, 2015) has found several psychological mechanisms which act as mediators between MBSR/MBCT and the resulting measures of well-being; these include mindfulness, cognitive and emotional reactivity, and repetitive negative thinking. Accordingly, mindfulness promoted by MBSR and MBCT could have a positive impact on well-being via increasing participants' abilities to deal with psychological processes such as cognitive and emotional reactivity as well as repetitive negative thinking (rumination and worries). However, the mediation studies reviewed cannot provide answers as to how the participants dealt with cognitive and emotional reactivity as well as repetitive negative thinking differently with the help of the MBIs. This question was addressed by another research study which tested a

model of mindfulness mechanism in increasing well-being (Cebolla et al, 2018). Specially, the study tested the model proposed by Holzel et al. (2011) on the impact of mindfulness mechanisms on meditators versus non-meditators. According to Holzel et al., there are five mechanisms via which mindfulness promote mental well-being; they are attentional control, body awareness, emotion regulation, non-reactivity and non-attachment (detachment from identifying with a static sense of self). Using structural equation models to compare samples of meditators and non-meditators in their study, Cebolla et al. found significant differences in attentional control, body awareness, emotion regulation, non-reactivity, and non-attachment between meditators and non-meditators, wherein meditators scored higher on all five factors (2018). It is likely that meditation practices promote attentional control, body awareness, emotion regulation, non-reactivity, and non-attachment. Specifically, the findings indicated that attentional control might be the primary mechanism that directly affects the other three mechanisms (body awareness, emotion regulation, and subsequently non-reactivity, which in turn affect the mechanism of non-attachment). In this model, non-attachment is described as resulting from the development of a keen sense of awareness of the transitory nature of the self. The subjective quality of non-attachment allows individuals to not over-identify, and hence, get entangled with their own mental processes; instead, individuals become more open, curious, and ready to relate to the world, moment-by-moment, in a refreshing manner. Non-attachment is considered as one of the flagship mechanisms of mindfulness.

In relating these findings to the MBIs for teachers' well-being, there are two points that are especially worthy to consider in the current literature review. First, have MBIs for teachers' well-being been carefully designed to promote mindfulness mechanisms such as attentional control, body awareness, emotion regulation, non-reactivity and non-attachment? Second, when MBIs have shown to be effective in promoting teachers' well-being, do studies include the exploration of the possible mindfulness mechanisms that lead to the specific

resulting benefits? With these two questions in mind, the following paragraphs focus on reviewing the research findings on MBIs for teachers' well-being.

***Mindfulness-based Interventions for teachers.*** Compared to MBIs and the relevant research studies conducted for the clinical population, there are much less MBI studies in the context of education. Furthermore, in the area of MBIs in the educational setting, majority of these interventions are designed for students rather than teachers. Given that teaching has been recognized as a highly stressful and demanding profession, this is an important gap.

Nevertheless, MBIs are becoming increasingly important for teachers' professional development (PD) for two main reasons: Firstly, teachers need to be more equipped to face emotional and social challenges in their daily professional lives in order to avoid burnout or attrition (Klingbeil & Renshaw, 2018); secondly, there is a general assumption as well as some research findings which show that mindfulness trainings enhance teachers' emotional regulation, compassion, and forgiveness, which indirectly benefit their students (Ragoonaden, 2017; Roeser et al., 2013).

There are mainly three main types of MBIs specifically developed for teachers. These include Stress Management and Relaxation Techniques (SMART), Cultivating Awareness and Resilience in Education (CARE), and Mindfulness-Based Wellness and Education (MBWE) (Hwang, Bartlett, Greben, & Hand, 2017; Klingbeil, Renshaw & Gilman, 2018). All these MBIs were developed to promote teachers' well-being within the umbrella of professional development rather than to promote teachers' well-being for the sake of promoting teachers' personal development. A brief description of each type of MBI are provided in the following paragraphs and their research limitations are discussed.

SMART was developed by Cullen and Wallace (2010). It aims to decrease teachers' stress, improve emotional regulation, and increase their sense of efficacy. The major content of this program, approximately 70%, is based on mindfulness practices offered in MBSR.

The other 20% consists of emotion theory and training. The remaining 10% is on forgiveness and compassion training. To date, SMART is the most studied MBI for teachers (Meiklejohn et al., 2012). It is noteworthy that aside from the mindfulness practices derived from MBSR, the rest of the SMART program is devoted to knowledge and practices related to emotional regulation skills as well as related to compassion and forgiveness training. Neither the emotion regulation nor the compassion/forgiveness practices have their concerns in existential exploration based upon the development of any introspective insights on the nature of existence. Rather, they are knowledge-based and skill-based methods that are derived from therapeutic models. In this sense, SMART does not emphasize the existential component of mindfulness, which is intricately connected with the skill-based practice of mindfulness. Similarly, the other two MBIs for teachers that have been most widely researched upon - CARE and MBWE – amongst the limited available studies in this area, also lack the existential component of mindfulness in their program structures.

CARE aims to reduce teachers' stress and enhance their emotional and social competence in face of the challenges in their profession (Jennings, 2011; Jennings, Frank, Snowberg, Coccia & Greenberg, 2013). The program consists of three main components: (1) emotion skills, which inform teachers how to recognize and regulate emotions, (2) mindfulness stress reduction practices, which provide guidance on practicing silence and other mindfulness meditations, and (3) compassion and listening practices, which involve offering well-being to oneself and others. In this sense, majority of the content of CARE is about emotion and social regulation, while mindfulness practices constitute only one-third of the entire program. Apparently, the practical component of mindfulness is being used to amplify psychological functioning without giving attention to the development of existential insights.

MBWE aims to introduce different domains of well-being to teachers so that they can bring these into their classroom practices. In addition, the program aims to strengthen teachers' abilities to deal with stress (Soloway, Poulin & Mackenzie, 2011). The program consists of two parts: (1) formal mindfulness practices, which are similar to those used in MBSR, and (2) wellness wheel, which explores different domains of wellness through the lens of mindfulness. As compared to the other two types of MBIs for teachers, MBWE tends to gear more towards promoting generic well-being rather than for specific professional development. In that sense, a significant portion of the program is for mindfulness practices without adding any specific agenda such as promoting teachers' efficacy, emotional regulation and social competence. Furthermore, aside from maintaining the originality of the practical component of mindfulness, MBWE also introduces a more holistic view of well-being to teachers and guides them to directly apply mindfulness skills to enhance these well-being domains. Of course, as with all professional development, the program is also designed with the intention that the benefits on well-being of the participating teachers could be carried over into their classroom practices. Similar to SMART and CARE, however, MBWE does not have the component of existential insight development.

Taken together, the current review has identified three common characteristics in the above discussed MBIs for teachers, which are likely to have limited the actualization of positive impact of mindfulness on the participating teachers' well-being. Firstly, all these MBIs for teachers have taken a narrower stance of professional development, which intends to better prepare teachers to face their professional challenges and/or developing teachers as agents for desirable changes in school and among students rather than intent to nurture the overall mental well-being of teachers. This narrowing approach towards teachers' well-being can block the actualization of the full range of positive effects of mindfulness. In addition, this narrowing approach led to negligence of these MBIs in including mindfulness

mechanisms, such as attentional control, body awareness, disengagement from mental afflictions, non-reactivity and openness, into their design. Secondly, these MBIs make use of the practical component of mindfulness in their programs but disregard the existential component of mindfulness. Thirdly, aside from mindfulness practices, these MBIs have added knowledge-based and skill-based trainings for specific psychological functioning. The adding of such non-mindfulness components into the MBIs creates two research issues: the impact of mindfulness is confounded with the desirable effect resulting from the additional non-mindful trainings in these interventions; and without careful consideration about the philosophical/theoretical underpinnings of how the non-mindful component integrates with the mindfulness component, it is uncertain whether the unique effectiveness of mindfulness have been kept intact in these interventions. Consequently, the former limitation makes it challenging to differentiate which part of an MBI is effective in producing the desired outcomes. The latter limitation adds difficulties to the investigations of how a specific MBI work to promote well-being.

A recent systematic review for studies of effects of MBI for teachers also alluded to similar shortcomings as discussed in the above paragraphs (Emerson et al., 2017). The systematic review only included studies with MBIs with active mindfulness practices as a core component; as well, the studies being reviewed used established models such as MBSR and MBCT in their interventions. As a result, 13 studies with adapted MBSR, CARE, MBWE, and SMART were selected for analysis. Accordingly, these studies show medium effects in the improvement of mindfulness, emotional regulation, and compassion, as well as stress reduction. Nonetheless, the authors raise the concern for concluding the effects of MBIs for teacher with a general sweepstake statement. In accordance with the third limitation discussed above, the authors of the systematic review commented that some of the reviewed studies (SMART, CARE) had included non-mindful component such as emotional

management skills into their mindfulness interventions and thereby making it hard to conclude whether the positive interventional effects are due to mindfulness elements or due to the taught elements on emotional regulation. The authors also pointed out that the studies in the review had not investigate how mindfulness works to produce the betterment in measures of stress, emotion regulation, teachers' efficacy, compassion, and so forth.

With respect to the first limitation discussed above, the authors of the systematic review underscored the interesting fact that MBIs program which are increasingly specific in tailoring for teachers do not result in more positive outcomes. For example, highly tailored intervention such as CARE did not produce consistent increase in teachers' efficacy (Jennings et al. 2011, 2013); while MBWE, which content is less tailored for teachers, was associated with significant changes in teachers' self-efficacy (Poulin et al. 2008). This finding suggests that an intervention should intent to promote overall mental well-being rather than to specify a narrow set of teachers' professional related enhancement; this allows for wide range of possible positive effects to take place in the program. To this end, it is further advocated that such an MBI for teachers' overall mental well-being necessarily include the practical as well as the existential component of mindfulness in its design. More specifically, the existential component should support teacher-participants' development of existential insights at the personal level – the argument for this stand is available in the next section which provides a review of existential literature in relation to well-being and mindfulness.

***Evaluation of effectiveness of mindfulness-based interventions.*** Along with the increasing popularity of MBI, evaluation of the effectiveness of these interventions are catching attention in the research arena. Relevant systematic reviews and meta-analysis of MBIs for workplace in general as well as for teachers in specific have alluded to a few common ways to measure the effectiveness of MBIs (Lomas, Medina, Ivztan, Rupprecht &



Eiroa-Orosa, 2019; Khoury, Lecomte, Fortin, Masse, Therien, Bouchard, Chapleau, Paquin, Hofmann, 2013; Hwang, Bartlett, Greben & Hand, 2017; Emerson, Leyland, Hudson, Rowse, Hanley & Hugh-Jones, 2017). Accordingly, quantitative data gathering is the major trend, with variation in the usage of mixed method design study, pre- and post-test, waitlist control, with relative scarcity using active control groups. In addition, majority of these reviewed research tended to use self-report measures to demonstrate the effectiveness of the interventions. In specific with MBIs for teachers, studies usually measured interventional outcomes that are related to teachers' wellbeing, teachers' performances and teachers' experiences of learning and practicing mindfulness (Hwang et al, 2017). It is worthy to note that there are quite a substantial portion of MBIs research for teachers which utilized mix method designs; while studies that adopted pure qualitative approach are minorities.

As explained in earlier paragraphs, research on MBIs for clinical populations had proliferated the initial wave of secularized usage of mindfulness; afterwards, different kinds of MBIs began to be developed and thus researched upon among non-clinical populations. MBIs for teachers is a developing area that warrants more research. At this stage, standardized MBIs with widespread usage within the profession, such as the those being in use with clinical populations (MBCT and ACT), are not yet available. For this reason, mix-methods design is quite appropriate for evaluating effectiveness of small-scale interventions. In specific, such design has the advantage of enabling the gathering of qualitative data about the participants' subjective experiences in attending an MBI. This helps to better the design and implementation of the relevant MBI for teachers because this tells what might be working and what might not be working of the program (Lipsey & Cordray, 2000). That is, when the interventional effects remain in the exploratory stage of investigation, mix-methods design is a good choice. Since the current research is based on the design and implementation

of a new MBI for teachers, it lends itself on the usage of mix-method to explore the effectiveness of the EMPT program.

### **Existentialism, Mindfulness, and Well-being**

For the purpose of the current research study, two domains of existentialism are under review: one is the empirical studies under the umbrella of existential experimental psychology (XXP), and the other is studies about existential therapy (ET). Both XXP and ET allude to the close connection between mindfulness and existential exploration. Specifically, addressing existential concerns helps to amplify the positive effect of mindfulness on alleviating mental sufferings.

In examining the literature on the integration of mindfulness into existential therapy (ET), the positive therapeutic outcomes illustrated the complementary effect of existential exploration with mindfulness in helping clients to overcome mental afflictions (Nanda, 2010). A core assumption of ET is that many emotional problems as well as mental afflictions have their roots in existential dilemma (Vos, Cooper, Correia & Craig, 2015). Accordingly, existential dilemma refers to the universal limitations we experience as being human. These may include the fact that life is transient and full of uncertainty, freedom to choose involves taking full responsibilities without the control over what will happen next, where we belong, the fluctuating nature of our identities, and finally, that all of us have to face loss and mortality. The EP approach takes the stance that these dilemmas are naturally part of being human and offer golden opportunities for individuals to discover meaning and purpose within the limitations of human existence (Nanda, 2010; Harris 2012).

Accordingly, such process of self-discovery empowers individuals to move beyond their emotional problems and mental afflictions towards living an increasingly fulfilling life. Recall that the earlier part of this chapter dealt with the definition of eudaimonic well-being, which specifies that individuals can become mentally healthier when they perceive their lives

as being meaningful and fulfilling. It is evident that in the field of existential therapy, individuals' eudaimonic well-being can be fostered via addressing existential dilemmas manifested as different forms of life challenges. There are specific characteristics of the existential-phenomenological approach that are akin with the original usage of mindfulness within the context of existential exploration of the Buddhist traditions (Nanda, 2009). Hence, the integration of mindfulness into ET (mindfulness-based existential therapy) better supports the individual clients in distancing away from destructive emotions rooted from unresolved existential threats. Moreover, mindfulness helps clients to free themselves from the compulsion to act – to avoid pain and/or to grasp pleasure – and thereby enables the individuals to relate to their existential threats in a more authentic as well as flexible manner (Harris, 2013; Nanda, 2010). Hence, the existential therapy literature suggests that integration of mindfulness and existential therapy provides a strong case for the promotion of mental well-being.

Although it has been shown that the integration of mindfulness and existential therapy – mindfulness-based existential therapy (MBET) - complement each other and improve the quality of the therapeutic effect, nonetheless, there exist limitations to the way existential therapy makes use of mindfulness in addressing individual clients' existential threats. Existential therapy assumes that issues such as mortality, loss, isolation, and so forth are part of the miseries experienced as human; that the only thing that could be done is to accept and move on to better create purpose and meaning to our lives (Nana, 2009). In contrast, the existential tradition of mindfulness addresses existential threats via transforming the experiences of human existence as separate, independent entities to an authentic existence with wholesomeness, based upon first-hand investigation of the nature of all phenomena. In other words, mindfulness as a tool for existential exploration opens up much wider range of possibilities than those confined within the premises of mindfulness-based existential therapy

(MBET). Upon such ground, the current study argues that mindfulness can better promote mental well-being when these tools are being reintegrated with open-ended existential exploration at an individual level. The open-endedness refers to the fact that existential exploration does not need to be confined by any religious doctrines or by any philosophical stand points; instead, the exploration shall be conducted according to the affinities and agendas of different individuals. As long as the existential exploration is supporting self-understanding and the mindfulness is used to deepen and to transform the firsthand experiences of human existence, then the program should benefit mental well-being in a permeating and sustainable manner. In this sense, secular usage of mindfulness can be void of religion and yet remain faithfully founded upon existential exploration, which is arguably an integral part of mindfulness and which arguably uniquely contribute to the effectiveness of mindfulness in self-understanding and well-being enhancement.

It is worthy to note that unlike cognitive therapy, systematic empirical studies remain lacking in the field of existential therapy. The main reason is that existential therapy is not composed of a set of prescribed techniques; rather, it is characterized by a way of thinking guided by core principles. As a result, it poses challenge to systematically investigate its therapeutic effects (Harris, 2012; Claessens, 2010; Corrie & Milton, 2000). Nonetheless, there is evidence illustrating that the close connection between mindfulness and existential exploration can be empirically affirmed in the field of existential experimental psychology (XXP).

Many studies in the field of XXP illustrated that addressing existential concerns can reduce the fundamental anxiety of human's existence. In reaction to such anxiety, individuals are motivated to search for ultimate significance and protection against existential anxiety (Pyszczynski, Sullivan & Greenberg, 2015). Accordingly, such processing of self-exploration has been found to be beneficial in supporting individuals to realize their purposes in life and

thereby make existence more fulfilling. In this sense, engaging in self-exploration and developing existential insights help to enhance well-being. For instance, XXP studies illuminated the fact that the conscious processing and direct confrontation of existential concerns and the related anxiety might help individuals to go beyond all kinds of subconscious ways by which human try to invent social constructs to defend existential security (Hayes, Schimel, Arndt, & Faucher, 2010).

Invented social constructs include consolidation of cultural view, self-esteem, and close interpersonal attachments. Accordingly, going beyond such social constructs enables individuals to become freer to re-examine their understanding of themselves, others, and the world. For instance, it was found that interventions exploring the meaning in life benefit patients with advanced disease. In particular, it was found that when the source of meaning was explored with a sense of connectedness being re-established, patients' well-being was enhanced (Guerrero-Torrelles, Monforte-Royo, Rodriguez-Prat, Porta-Sales & Balaguer, 2017). Other studies suggested that conscious awareness of death, mortality salient (MS), can help individuals to introspect their life goals and to differentiate self-directed, personal growth goals from culturally imposed status-oriented goals (Vail III, Juhl, Arndt, Vess, Routledge & Rutjens, 2012). Accordingly, conscious processing of our inevitable mortality help us to re-orient and re-prioritize life goals that support self-growth; studies have illustrated that this re-orientation and re-prioritization could help individuals to go beyond their culturally prescribed views and seek for increasingly authentic self-identities. Seemingly, the key is whether this conscious awareness of existential threats and their related anxieties could be seized as opportunities for individuals to re-examine what constitutes a fulfilling and meaningful life. It is in this sense that conscious processing of existential concerns helps enhance well-being. That is, conscious processing of existential concerns and their related anxieties must be supported by active and effective engagement in coping

strategies in order for these confrontations to be beneficial to self-growth as well as well-being (Cozzolino & Blackie, 2013).

In the past decade, increasing XXP studies have been focusing on studying the supportive conditions that make conscious processing of existential concerns advantages to self-growth and well-being. For instance, it was found that various ways of contemplating mortality in specific and individuated manner help with identity integration, which was found to be associated with well-being (Blackie, Cozzolino & Sedikides, 2016). Accordingly, the contemplation of mortality in specific and individuated manner can be understood as contrasting with being reminded of death in an abstract and decontextualized manner. When mortality is being processed in an abstract and decontextualized manner, it was found that individuals have the tendency to distance away from the reminder. However, when mortality is being contemplated upon in specific and individuated manner, this could result to reconfiguration and integration of multiple identities. The contextualization and individuation of death reflection, thus, involves ways of supporting thinking about what dying means to an individual at the personal level.

In a more direct sense, it has been shown that death reflection enhances gratitude, which, in turn, is also found to be associated with well-being (Frias, Watkins, Webber & Froh, 2011). Similarly, evidence also supports that individuals with lower death fear and death denial (successful conscious processing of mortality threat) were found to have a significant enhanced sense of self in terms of higher self-esteem, higher self-concept clarity, higher locus of control, better self-realization, and well-being (Cozzolino, Blackie & Meyers, 2014).

Taken together, empirical studies of XXP show that conscious processing of existential concerns is beneficial to well-being. Specifically, the conscious processing spurs an individual to quest for self-direction, closer relationships, and reorganization of life

priorities with appreciation and insights into the meaning of life at the personal level—and along with this self-growth is the development of an enhanced sense of well-being. More importantly, conscious processing of existential concerns is most effective when these kinds of contemplation are done with individuation and contextualization. This approach to enhancing well-being matches well with the postulation of the current study which argues that existential exploration should be an integral part of mindfulness intervention for well-being. Based on this evidence-based principle, the existential component of EMPT of the current study adopts the stance of thematic exploration that facilitate individual participants' contemplation of existential issues (anxiety) within daily living contexts at the personal level. Indeed, these thematic explorations were designed to tailor for diversity of personal affinities with respect to spirituality, worldviews, individuals' belief systems, and so forth. The sole purpose of the existential component of EMPT is to heighten the existential awareness of participants as well as to facilitate each individual to explore personal concerns about isolation, freedom, identity, death, and meaning. In hope that these contemplations can help participants to reprioritize their daily existence as well as to gain insights in their relationships with themselves, significant others, and the world.

The use of mindfulness-based interventions in addressing existential issues and their related anxiety has been documented to have promising effect on the alleviation of mental afflictions. For instance, in a qualitative study wherein individuals suffering from somatoform disorders joined a Mindfulness Therapy Program, after the treatment, these individuals reported that their existential anxiety were alleviated with more secure self-concept and social identity. They also became more competent in making meaning of their illnesses (Lind, Delmar & Nielsen, 2014). Another experimental research found that individuals with higher trait mindfulness – those who maintain receptive attention to present experience – are less defensive towards death (Niemic, Brown, Kashdan, Cozzolino, Breen,

Levesque-Bristol & Ryan, 2010). The study showed that the more mindful individuals spent more time writing about their own mortality than less mindful persons. In addition, more mindful individuals exhibited less worldview as well as self-esteem defenses after being exposed to death messages. The researchers, thus, summarized that mindfulness enable individuals to become more open and receptive to conscious processing of existential issues. Taken these findings together, mindfulness should be able to facilitate individuals' existential exploration in the sense that being mindful allows us to go beyond ego defenses caused by all sorts of threats and thereby enables us to better address our ultimate (existential) concerns. Therefore, the current designed mindfulness-based intervention has integrated an existential component to the program in hope that this existential component could support participants to consciously explore and process existential issues at the personal level; while the practical component of mindfulness could promise individuals to gain firsthand experiences in increasing authentic existence. In turn, the overall enhanced quality of existence would mean enhanced well-being.

**Well-being.** In this study, well-being is conceptualized as a multidimensional phenomenon, particularly, on its positive aspects (i.e., well-being) and negative aspects (i.e., ill-being)

As a reaction to the oversimplified notion of mental well-being as the absence of mental pathologies, positive psychology advocates the necessity to approach and to examine conditions that can support human beings towards mental flourishing (Keyes & Simoes, 2012). There are two broad approaches towards the understanding of well-being; namely, the hedonic and the eudaimonic approach (Ryan & Deci, 2001). The former refers to life satisfaction in the sense of personally striking an emotional equilibrium between positive and negative affect, while the latter refers to subjective evaluations of one's life as socially meaningful, with personal purpose and fulfillment.



It has now been widely agreed among researchers that optimal mental well-being compromises both hedonia (feeling good) and eudaimonia (doing good) (Henderson & Knight, 2012). Hence, it is not surprising that the World Health Organization (WHO) defines mental health as “a state of well-being in which every individual realizes his or her own potential (eudaimonic), can cope with the normal stresses of life (hedonic), can work productively and fruitfully (eudaimonic), and is able to make a contribution to her or his community (eudaimonic).” (2020, para. 1). Similarly, Keyes (2002) advocates that emotional (hedonic), psychological, and social well-being (both eudaimonic) are the three cores towards mental well-being. Ryan and Deci (2012) proposed that human beings have three fundamental psychological needs which if satisfied would encourage a person to pursue his/her intrinsic aspirations, which in turn would lead to optimal functioning and thus well-being. All in all, it seems that aside from feeling well; doing well such as having meaningful social relationships, sense of self-acceptance, and being able to actualize one’s intrinsic aspirations are among the core constituents, which support optimal functioning among individuals.

This thesis puts forth the argument that the abovementioned constituents for well-being require individuals to possess certain degree of existential insights for the development of an increasingly authentic orientation towards self, others, and the world. For instance, an authentic sense of self-acceptance cannot be developed without addressing existential concerns such as identity and belonging. Similarly, establishing meaningful social relationships and actualizing intrinsic aspirations require some understanding about what life and death means to each person. Indeed, the current research would argue that in order for individuals to develop a more authentic sense of doing well and feeling well, to certain extent, they have to address existential issues such as isolation, identity, meaning, and so forth. For instance, there are empirical evidences suggesting deeper processing of life goals and life purposes enhances well-being (Ardelt & Carladenise, 2016; Bauer & McAdams,

2020). Obviously, life goals and life purposes can be better developed with existential insights. Therefore, although the focus of the current research is on teachers' mental well-being, in order to harness the well-being benefits of a mindfulness-based intervention for teachers, it is also important to highlight the existential undertone of mental well-being.

Taken altogether, the current research adopts the stance that mental well-being encompasses both hedonic and eudaimonic elements. Furthermore, the current research argues for the importance of addressing existential concerns along the way towards betterment of mental well-being. More specifically, for hedonic well-being, both positive and negative affect must be considered in order to provide a more complete picture of a person's mental health. For instance, the absence of negative affect does not equate to "flourishing". By the same token, presence of positive affect only tells half of the story because it is essential to understand the status of a person with regard to the presence of negative affect in his/her life. On the other hand, eudaimonic well-being is more about fulfillment and meaning of life, which manifest in how well we relate to ourselves, others, and the world.

**Ill-being.** As explained above, there are also key negative aspects of well-being which is termed ill-being. In this thesis, the focus is on depression, anxiety, and burnout.

According to The Diagnostic and Statistical Manual of Mental Disorders (5<sup>th</sup> ed., DSM-5), depression refers to include persistent feelings of sadness, hopelessness, loss of interest in activities once enjoyed, difficulty in concentrating, and recurrent suicidal thoughts, as well as physical symptoms such as chronic pain or digestive issues (American Psychiatric Association, 2013); while anxiety refers to excessive and uncontrollable worries accompanied with a range of physical and cognitive symptoms such as restlessness, irritability, muscle aches, sleep problems, and so forth (American Psychiatric Association, 2013).

The term burnout was first defined by American psychologist Herbert Freudenberger (1974) who described it as the depletion and exhaustion of one's physical and mental resources in pursuit of some unrealistic expectations imposed by one's self or others. In later years, a more precise conceptual definition of burnout has emerged. Maslach and Jackson (1981) characterized burnout as comprised of three dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment. Studies have shown that burnout has dire consequences on individuals' well-being as well as their work quality (McInerney, Ganotice, King, Morin & Marsh, 2014; Siu, Cooper & Phillips, 2014). Given the critical importance of burnout for optimal functioning, studies have examined the antecedents of burnout as well as strategies to prevent its emergence. (Moe, 2016; Schussler, Jennings, Sharp & Frank, 2016).

### **Research Aims, Questions and Hypotheses**

**The research gaps.** In response to reviewing studies in the area of MBIs for well-being, the current research study makes its unique contribution, first, by reintegrating the existential component into the MBI for well-being. The existential mindfulness program for teachers (EMPT) is designed to preserve the active ingredients of mindfulness with two core components: a practical component (guided mindfulness meditations) and an existential component (thematic-based existential exploration at the personal level).

Past MBI studies have mostly failed to take the existential component into account. This is a key limitation because these programs lack a rich existential context within which the mindfulness practices could go hand in hand with existential insights development, since the practices of mindfulness originally are an integral part of a bigger quest of one's existence and life meaning. Arguably, benefits such as enhancement of positive emotions, stress-reduction, and so forth are mere by-products that are derived from a deeper understanding of as well as experiences with a person's journey towards existential exploration. This research,

therefore, proposes that there exist two levels of benefits that could be ripped off from mindfulness-based interventions: Level 1 involves temporary relief of negativity and temporary boosting of positivity and level 2 involves sustainable growth in positivity and diminishing of negativity coupled with a deepening sense of personal development in relation to existential insights. In order to achieve the level 2 well-being benefits, the current research advocates the importance of re-unifying mindfulness with the existential component in mindfulness-based intervention for well-being such as the EMPT in the current study. As of to date, there exists a research gap in the study of mindfulness-based intervention for well-being that provide its participants with an opportunity to contemplate as well as to develop existential appreciation.

As discussed, MBIs for teachers either are partially adopting some mindfulness techniques to add on to interventions that are developed from their own theoretical underpinnings; or these MBIs have added non-mindfulness elements into their programs. These ways of applying mindfulness in interventions for well-being are likely to result in sabotaging the full-blown effectiveness of mindfulness. For this reason, the current research adopts a broader stance than teachers' professional development in the design of our intervention. Our current intervention, EMPT, intends to provide individual teachers with opportunities for personal exploration for their own self-growth and wellness rather than as mere professional development. Therefore, in addition to including various guided mindfulness meditative techniques, EMPT replaces Buddhist philosophy with relevant existential themes to encourage insight development that are in accord with individuals' affinities. In this way, EMPT is carefully designed to adapt mindfulness for promoting well-being in teachers by not adding trainings which risk fragmenting the active ingredients of mindfulness. This is the second unique contribution of the current interventional study. In addition, the simplicity and non-addictiveness of EMPT also makes it easier for the current

research to explore the mechanisms behind which EMPT work to promote well-being, which lands us to the third research gap to be addressed. As mentioned, although research findings on improving teachers' well-being via mindfulness-based interventions (MBI) have been found to yield positive effects, these studies do not focus on examining the specific conditions that make the interventions effective for the increase of teachers' well-being. The current research fills in this third gap by creating an intervention that is simple and authentically adhering to the origin of mindfulness' principles, which makes it easier for the current study to explore the mechanisms behind which EMPT work to promote well-being.

**The research problem.** As mentioned in the previous sections, mindfulness-based interventions for teachers' well-being in general have turned out quite positive. However, the fine line of distinction between mindfulness being used as a technique for secular purposes and mindfulness as a way to support the self-growth of existential insights with enhancing well-being as by-product, has not yet caught the attention in the research arena. To this end, the current research is an attempt to develop as well as to implement a mindfulness-based intervention (Existential Mindfulness Program for Teachers (EMPT)), which incorporates the existential component for the local teaching profession. Further, it intends to investigate whether EMPT is effective in promoting mindfulness as well as well-being of its participants. The current study examines the subjective experiences of participants in hope to, firstly, shed light upon the specific conditions that supported or undermined the positive effects of the intervention; and secondly, to gather information about the participants' personal transformations that might be associated with mechanisms behind the enhancing of their mindfulness as well as their well-being.

**The research questions.** The current study was designed to answer four key research questions. These research questions are organized into quantitative and qualitative questions.

The first two were answered using quantitative methods and the latter two were answered using qualitative approaches:

1. Did the EMPT program increase teachers' mindfulness?
2. Did the EMPT program improve teachers' well-being and reduce their ill-being?
3. What were the participants subjective experiences with the EMPT program?

(qualitative). This question was further subdivided into two sub-questions relating to the two components of EMPT:

- a. What were the participants' subjective experiences with the practical component of the EMPT program?
  - b. What were the participants' subjective experiences with the existential component of the EMPT program?
4. What improvements can be made to the EMPT program in order to better support the needs of individuals in the teaching profession?

**The research hypotheses.** According to the research aims and questions, the following hypotheses are developed for the quantitatively oriented research questions:

Hypothesis 1: The existential mindfulness program for teachers (EMPT) is effective in enhancing participants' mindfulness.

Hypothesis 2: The EMPT leads to increased well-being

Hypothesis 2b: The EMPT leads to decreased ill-being.

### Chapter 3: Methods

This chapter provides details on the study method. These include the research design, participants and procedure, intervention, instruments, and data analysis.

#### Research Design

The current research adopted the mix-methods design (Creswell, 2013). A mixed method design has the advantage of enabling the researcher to collect both quantitative data for comparison, as well as qualitative data to shed light upon the individuals' subjective experiences of participating in the EMPT. The qualitative data, thus, helped to provide triangulation as well as enrichment to the information collected by quantitative method.

The quantitative part of this study involved a pretest-posttest design. The independent variable is the EMPT intervention, and variables that were treated include mindfulness, well-being, and ill-being as dependent variables, while the qualitative part of the study involved gathering data about participants' subjective experiences with EMPT. Since EMPT is divided into the existential component and the practical component, the subjective experiences of participants with both components were examined. Furthermore, information about how to improve the program were gathered as part of the qualitative data. Please refer to the following Figure 1:

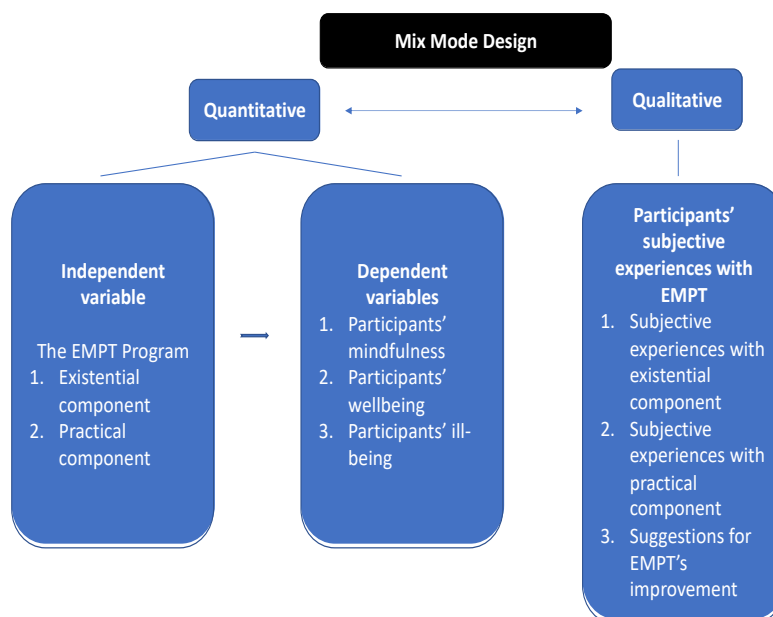


Figure 1. Heuristic framework for the current study

## Research Participants and Procedures

**Participants.** This study involved two groups of participants. The first group was the university group (U Group) and the second group was the kindergarten group (KG Group).

**U Group.** For the U Group, students from The Education University of Hong Kong were invited to participate in this study. There were 16 students who enrolled into the intervention program and one participant dropped out after two classes. All the other 15 participants completed the entire intervention with attendance not lower than 70%. Five of these 15 participants are male and 10 are female. U Group participants have a mean age of 25.71, with age range from 20 to 39 years. Out of the 15 students, 13 of them are undergraduates and two are postgraduates.

**KG Group.** For the KG Group, all the participants were recruited from one kindergarten in New Territories, Hong Kong. The kindergarten was housed within a public housing estate. The kindergarten catered mainly to families with lower socioeconomic status. There were 10 teachers (out of 19) from the kindergarten who participated and none of them



dropped out from the EMPT. The mean age of the KG Group participants was 32.18, with age ranging from 22 to 50 years. One of them is male and the rest are female.

These 10 teachers were invited by the higher management to attend the intervention and all of them agreed to participate. According to the higher management, the teacher participants were given the invitation to join the intervention based on firstly, the convenience of logistic arrangement, such as choosing teachers that had less workload on that term or those who did not have to conduct after-school-activities. Secondly, teacher participants were also invited based on the immediacy of their psychological-emotional needs. In this sense, the participants' recruitment process was conducted with a top-down approach, according to their teaching schedule as well as according to their psycho-emotional needs. This approach might have affected the motivations of KG group participants, which in turn might have had an impact on the success of the EMPT program. This point would be further explicated in the discussion chapter.

**Procedures.** Separate recruitment procedures were conducted for the two groups. Each group also had separate classes.

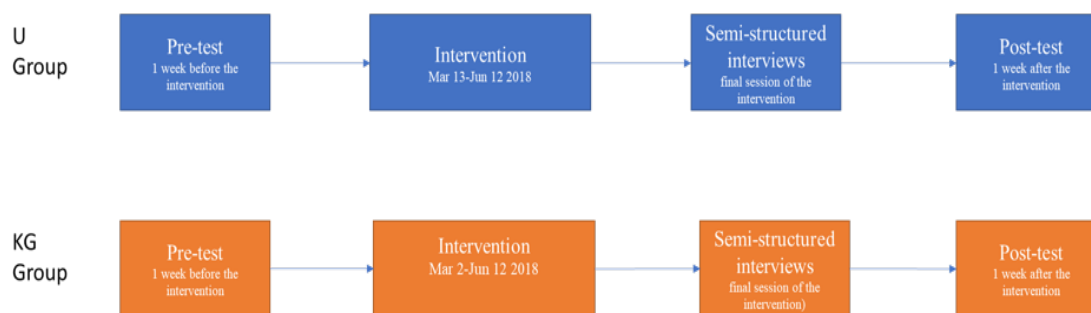
**U Group.** During the recruitment, intranet emails were sent periodically for two months (from Jan – Mar 2018) to all those studying in the Education University of Hong Kong. In the email, the purpose of the current research was clearly stated, and students were invited to join the intervention voluntarily out of interest. In addition, the emails specified that individuals who were taking psychotic drugs, going through main crisis in life, as well as those who were suffering from back pain were discouraged to join the program. Please refer to Appendix F for the protocol of the invitation letter, both in English and Chinese.

For the U group, mindfulness-well-being classes began on March 13, 2018 and the final class was on June 12, 2018. A total of eleven classes, each approximately two to two-and-a-half hours long, were conducted as originally planned.

**KG Group.** During the recruitment, the invitation letter (see Appendix F) was given to the higher management to be circulated among the teaching staff members who were invited to consider joining the research.

For KG group, the mindfulness-well-being classes began on March 2, 2018 and the final class was conducted on June 12, 2018. There was a halt after the fifth class, which was conducted on April 13, 2018. Classes were suspended for more than two months, the sixth class commenced on June 28. The last class was on July 13, 2018 for the KG Group. This made a total of eight sessions, each approximately one hour long. It is noteworthy that with the KG Group, due to the request from the Kindergarten higher management, the implementation of EMPT program, such as the duration of each session, the total number of sessions, the venue, and settings were adjusted, and hence deviated from the original research plan. The implication of such deviations from the original plan of intervention were considered in the discussion chapter.

Both groups were requested to complete the same batch of inventories made available online one week before and one week after the intervention. Semi-structured focus group interviews were conducted during the final intervention session: for the U Group, the focus group interview was conducted on June 12, 2018, while for the KG Group, the focus group interview was conducted on July 13, 2018. The U Group interview lasted for one hour and nineteen minutes, while the interview of the KG Group lasted for forty-five minutes. The timeline of EMPT implementation for both groups is depicted in the following Figure 2:



*Figure 2. Timeline of EMPT implementation*

Ethical approval of the study was granted by the ethical review committee of the Education University of Hong Kong. Participant anonymity was ensured by giving numerical coding to all personal information gathered from research participants. Only the researcher had access to the coding paired with personal identities.

As for the potential risks and harm of those who participated in the study, it was deemed minimal, as the study did not involve deception or unpleasant exposures of any kind. Nonetheless, there were some research findings alluding to possibility of participants experiencing elevated psychotic symptoms after some forms of mindfulness interventions (Keng, Smoski & Robins, 2011). Hence, as a precaution, the invitation letter specified that we discourage certain individuals to participate in the intervention. Nonetheless, as the guided meditation practices in EMPT are strictly adhering to mindfulness and do not contain any visualization that tap into the past or future of the participants, the risk of EMPT inducing psychotic symptoms is low.

Informed consent was sought from all participants from both groups. Two consent forms were distributed and collected from participants: their consent to join the intervention, including completing the batch of questionnaires, before and after the intervention; and their consent to join the focus group interview. Please refer to *Appendix 3.3* for the samples of consent forms. Participants were explicitly informed of the confidentiality of the data gathered as well as of their rights to withdraw from the study at any point in time.

## Intervention

The EMPT consists of two components; namely, (1) the existential component, which consists of various existential themes for insight development and (2) the practical component, which consists of various forms of guided mindfulness practices. Each session was roughly divided into two parts. The first part usually involved group sharing together with activities of a specific existential theme. The second part involved authentic experiences with various kinds of guided mindfulness practices.

The themes of the existential exploration were designed to help individuals to develop existential insights on the five major existential concerns (death, isolation, identity, freedom, and meaning) described in the literature review chapter (Koole, Greenberg & Pyszczynski, 2006). More specifically, the group sharing with their relevant activities were designed to guide participants to relate the explored existential themes to their daily lives. For instance, there was the theme “What Is Important When We Are Dying?” it explained the significance of being fully present moment-to-moment. In addition, it explored how mortality informs us of the meaning of each of our lives. In this sense, the themes of EMPT were chosen to support participants in exploring existential concerns, such that they can have chances to reorient their outlooks on life with an increased awareness of the personal meaning of daily livings within the larger context of their own existence.

At the same time, these thematic-based existential explorations were enriching to the guided mindfulness practices because they were also designed to bring out the significance of being mindful. For instance, after the existential exploration of the theme of *the “I” Within Something Larger*, guided mindfulness drinking of tea was conducted to enable the participants to gain authentic experiences of the inter-connectedness of selves to the rest of the world. The guided mindfulness practice of drinking tea was conducted in such a way that leads the participant to develop a deeper connection with the tea that they were drinking.

From this connection, the participants were further guided to expand their sense of connectedness towards the various elements, which made available by the tea. These include the making of the tea as well as all the conditions that support the growing of the tea leaves. This expansion of consciousness allows participants to experience the connectedness with something larger than oneself. In this sense, mindfulness experiences can help participants to live daily lives more meaningfully and fulfilling.

Table 1

*EMPT Protocol*

Class	Topics and Objectives	Content	Activities
1	Introduction	<ul style="list-style-type: none"> <li>• Sharing on expectations for the program as well as participants' understanding of mindfulness</li> <li>• Introducing the intervention program as well as the research aims of this current study</li> <li>• Inviting participants to complete the batch of inventories as well as informed consent form</li> </ul>	<ul style="list-style-type: none"> <li>• "Which Animal Represents Me?"</li> <li>• "Ten-Minutes Breathing Meditation"</li> </ul>
2	Negative Bias of Our Brain  Objective: Explore the hidden anxiety of being mortal	<ul style="list-style-type: none"> <li>• Sharing on the built-in negative biases of our brain as well as other environmental conditions that amplify these negative biases</li> <li>• Group sharing on personal experiences with negative biases in processing daily experiences</li> <li>• Mindfulness practices that enhance awareness and help participants disentangle from negative mental states</li> <li>• Guided Body Scan and a brief Mindfulness Meditation</li> </ul>	<ul style="list-style-type: none"> <li>• "Positive versus Negative Mental States"</li> <li>• "Guided Meditation on Awareness of breathing in (positive) and breathing out (negative)"</li> </ul>
3	Being V.S. Doing  Objective: Explore the compulsion of 'doing' as almost	<ul style="list-style-type: none"> <li>• Continuation of sharing about differentiation of mental states such as satisfaction versus contentment</li> <li>• Sharing on how the compulsive</li> </ul>	<ul style="list-style-type: none"> <li>• "The Doing Nothing Moment"</li> <li>• Ted Talk of <i>The Art of Stillness</i></li> </ul>

Class	Topics and Objectives	Content	Activities
	the way to meaning making	<p>need to self-esteeming and/or chasing after extrinsic incentives block individuals from experiencing the presence in full</p> <ul style="list-style-type: none"> <li>• Group sharing on the personal tendencies and experiences of escaping from the present (here-and-now) via different kinds of distraction</li> <li>• Mindfulness practices as means to “being” at the present rather than living under the compulsion to orient to “doing”</li> </ul>	by Pico Iyer, “Guided mindfulness mediation on just being”
4	<p>Life as Visitors</p> <p>Objective: Explore existential insecurity and the compulsion to gain control</p>	<ul style="list-style-type: none"> <li>• Sharing of Sebastian Salgado’s photo gallery as well as his life story</li> <li>• Discuss the benefits of recognizing and embracing changes in life</li> <li>• Mindfulness practices free individuals from grasping for control</li> </ul>	<ul style="list-style-type: none"> <li>• Video and book by Sebastian Salgado,</li> <li>• Guided Body Scan, Guided mindfulness meditation on “We Don’t Own Our Body”</li> </ul>
5	<p>What Is Important When We Are Dying?</p> <p>Objective: Explore the meaningfulness of living through the lens of dying</p>	<ul style="list-style-type: none"> <li>• Watching Ted Talk on <i>What Things Are Important When You Are Dying</i></li> <li>• Discussing that the things that are important when an individual is dying are those things that are important when s/he is living</li> </ul> <ul style="list-style-type: none"> <li>- Sharing among group members on personal aspirations</li> <li>- Pointing out that in many cases, the things that are important when dying are those daily ordinary living moments, whether or not they are being lived fully in the here-and-now</li> <li>- Mindfulness practices that allow individuals to live fuller on the present</li> </ul>	<ul style="list-style-type: none"> <li>• “Guided mindfulness meditation on sensations”</li> </ul>

Class	Topics and Objectives	Content	Activities
6	<p>Staying Connect with Your Body</p> <p>Objective: Explore the sense of isolation and alienation in the modern world</p>	<ul style="list-style-type: none"> <li>• Guided body scan, then guided simple Yoga posture coupled with mindfulness breathing</li> <li>• Explaining the healing effects of being mindful of body sensations and movements</li> <li>• Sharing on body as slave of our emotions and thoughts</li> <li>• Mindfulness practices give the body back its autonomy</li> </ul>	
7	<p>The “I” Within Something Bigger</p> <p>Objective: Explore the possibility of inter-connectedness of self, others and the world</p>	<ul style="list-style-type: none"> <li>• Guided mindful drinking</li> <li>• Group sharing on the experiences of drinking with awareness</li> <li>• The heightened awareness of the here-and-now always accompanied with a more sophisticated sense of relatedness to the immediate environment and even to the universe</li> <li>• The importance of relatedness to well-being</li> </ul>	<ul style="list-style-type: none"> <li>• Tea drinking</li> </ul>
8	<p>Connecting with Our Humanity</p> <p>Objective: Explore self-identities and their meaning within the larger context of humanity</p>	<ul style="list-style-type: none"> <li>• Group sharing about personal experiences enabling participants to beyond the comfort zones and to connect with something larger than “I”</li> <li>• Mindfulness practices help participants to open up, be vulnerable in order to connect with our humanity</li> </ul>	<ul style="list-style-type: none"> <li>• “Dare to Hug” game,</li> <li>• “Guided Mindfulness Meditation in Awareness of Us as a Group”</li> </ul>
9	<p>Where Is Home?</p> <p>Objective: Explore the anchoring of our own existence</p>	<ul style="list-style-type: none"> <li>• Group sharing about where is home for participants</li> <li>• What does home represent for each individual?</li> <li>• Mindfulness practices provide participants with a grounded experience in an ever-changing world</li> </ul>	<ul style="list-style-type: none"> <li>• Ted Talk of <i>Where Is Home</i> by Pico Iyer</li> <li>• Guided mindfulness meditation on breathing</li> </ul>
10	<p>Review and Reflect</p>	<ul style="list-style-type: none"> <li>• Review on the program and Q&amp;A</li> <li>• Focus Group Interview</li> </ul>	<ul style="list-style-type: none"> <li>• Guided Mindfulness Meditation by</li> </ul>

Class	Topics and Objectives	Content	Activities
		<ul style="list-style-type: none"> <li>Students invited to lead meditation</li> </ul>	students

## Instruments

**Quantitative measures.** For the quantitative part of the study, measures assessing mindfulness, well-being, and ill-being were administered.

**Mindfulness.** Mindfulness was measured using the Five Facets of Mindfulness Questionnaire FFMQ (Baer, Smith, Krietemeyer & Toney, 2006). The FFMQ posits that mindfulness is comprised of five key components: *observing* (8 items; pretest Cronbach's alpha = .83; post-test Cronbach's alpha = .84) *describing* (8 items; pretest Cronbach's alpha = .78; post-test Cronbach's alpha = .80), *acting with awareness* (8 items; pretest Cronbach's alpha = .76; post-test Cronbach's alpha = .93), *non-judging of inner experience* (8 items; pretest Cronbach's alpha = .89; post-test Cronbach's alpha = .87), and *non-reactivity to inner experience* (7 items; pretest Cronbach's alpha = .76; post-test Cronbach's alpha = .64).

“Observing” refers to noticing both internal and external experiences such as thoughts, feelings, sensations, sights, sounds, and so forth. A sample item is, “When I am walking, I deliberately notice the sensation of my body moving.” “Describing” refers to putting internal experiences into words. A sample item is, “My natural tendency is to put my experiences into words.” “Acting with awareness” refers to being aware of one's activities at the moment. The items of this component are all reversed, and one sample item is “It seems I am “running on automatic” without much awareness of what I'm doing.” “Non-judging of inner experience” refers to taking a non-evaluative stance toward thoughts and feelings. The items of this component are all reversed, and one sample item is, “I tell myself I shouldn't be feeling the way I'm feeling.” “Non-reactivity” to inner experience is to allow thoughts and



feelings to come and go without getting caught up by them. Example of non-reactivity to inner experience items is “I watch my feelings without getting lost in them.”

FFMQ has a total of 39 items in this questionnaire and respondents rated the items on a 5-point Likert scale from 1 (*never or very rarely true*) to 5 (*very often or always true*). Please refer to Appendix A for the FFMQ inventory. Past studies have shown that the FFMQ has good psychometric properties (Baer, Smith, Lykins, Button, Krietemeyer, Sauer & Walsh, 2008; Christopher, Neuser, Michael & Baitmangalkar, 2012). In this study, FFMQ was selected to measure mindfulness for several reasons. Firstly, as mentioned, this questionnaire has well-established reliability and validity. Secondly, it has been widely used, and hence, enables the findings of the current research to be compared and contrasted with large portion of the research conducted in this arena. Thirdly, one of the purposes of the current study is to evaluate the effectiveness of the EMPT in enhancing mindfulness and FFMQ could provide data of which aspects of participants’ mindfulness were being fostered more/less via the current intervention.

***Well-being and Ill-being.*** To measure well-being and ill-being, different questionnaires were used. For well-being, the measures used include the Mental Health Continuum-Short Form (MHC-SF) (Keyes, 2002) and the Positive and Negative Affect Schedule – Short Form (PANAS-SF) (Watson & Clark, 1988). For ill-being, the measures include Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981) and the Ultra-Brief Screening Scale for Anxiety and Depression (PHQ-4) (Kroenke, Spitzer, Williams & Lowe, 2009).

*The Mental Health Continuum-Short Form (MHC-SF)* is a self-report inventory developed by Keyes (2002) and has three sub-domains: *emotional, psychological,* and social well-being. The MHC-SF has a total of 14 items. There are three items measuring emotional well-being (pretest Cronbach’s alpha = .89; post-test Cronbach’s alpha = .84). A sample item

is, “How often did you feel interested in life?” There are six items measuring psychological well-being (pretest Cronbach’s alpha = .81; post-test Cronbach’s alpha = .70). A sample item is, “How often did you feel confident to think or express your own ideas and opinions?”

There are another five items that measure social well-being (pretest Cronbach’s alpha = .78; post-test Cronbach’s alpha = .82), and a sample item is, “How often did you feel that you belonged to a community like a social group, your school, or your neighborhood?”

Respondents are supposed to rate the items on a 6-point scale from 0 (*never in the past month*) to 5 (*every day in the past month*). The higher the scorings indicate better mental well-being. Please refer to Appendix B for more information about the MHC-SF. Past studies have established the reliability and validity of MHC-SF across numerous cultural contexts (Joshani, Wissing, Khumalo & Lamers, 2013; Lamer, Westerhof, Bohlmeijer, Klooster & Keyes, 2011).

*Positive and Negative Affect Schedule – Short Form (PANAS-SF)* (Watson & Clark, 1988) is a 20-item scale measuring two dimensions of affect with ten items each. The two dimensions are the Positive Affect and the Negative Affect. “Positive Affect” refers to a state of high energy, full concentration and pleasurable engagement (e.g., “interested”; “attentive”; (pretest Cronbach’s alpha = .86; post-test Cronbach’s alpha = .79); while “Negative Affect” is characterized with by non-pleasurable engagement and aversive mood states (e.g., “irritable”; “nervous”; pretest Cronbach’s alpha = .90; post-test Cronbach’s alpha = .92). Individuals are asked to rate on a 5-point scale from “1” (*very slightly or not at all*) to 5 (*extremely*). Past studies have demonstrated the validity and reliability of the PANAS-SF (Merz, Malceme, Roesch, Ko, Emerson, Roma & Sadler, 2013).

*The Maslach Burnout Inventory (MBI)* is a 22-items self-report inventory that measures burnout in workplace (Maslach & Jackson, 1981). Three factors of burnout are tapped: *emotional exhaustion* (EE, 9 items; pretest Cronbach’s alpha = .90; post-test

Cronbach's alpha = .88), depersonalization (DP, 5 items; pretest Cronbach's alpha = .65; post-test Cronbach's alpha = .60), and *personal accomplishment* (PA, 8 items; pretest Cronbach's alpha = .86; post-test Cronbach's alpha = .84). "Emotional Exhaustion" refers to a sense of depletion of one's emotional as well as physical resources. A sample item is, "I feel used up at the end of a workday." "Depersonalization" refers to detached response to work itself or to the service recipients. A sample item is, "I've become more callous toward people since I took this job." "Personal Accomplishment" refers to individuals feeling sense of competency and productivity at work. A sample item is, "I have accomplished many worthwhile things in this job." Individuals were asked to rate on a scale from "0" (*never*) to "6" (*every day*). Higher scores indicate higher levels of burnout. Please refer to Appendix C for the protocol of MBI. The MBI has been demonstrated to have adequate reliability and validity in past studies (Worley, Vassar, Wheeler & Barnes, 2008).

*The Ultra-Brief Screening Scale for Anxiety and Depression (PHQ-4)* measures anxiety (2 items) and depression (2 items). The PHQ-4 had a pretest Cronbach's alpha = .91 and post-test Cronbach's alpha = .85. PHQ-4 has been found to have excellent psychometric properties among both clinical and non-clinical populations (Lowe, Wahl, Rose, Spitzer, Glaesmer, Wingenfeld, Schneider, & Brahler, 2010; Khubchandani, Brey, Kotecki, Kleinfelder, & Anderson, 2016). Please refer to Appendix E for the protocol of PHQ-4.

**Qualitative data collection.** For the qualitative part of the study, the researcher used semi-structured focus group interviews to gather data about participants' subjective experiences about the program. These qualitative data could provide the following additional information about EMPT:

1. Participants' subjective experiences with regard to the practical component of the EMPT program

2. Participants' subjective experiences with regard to the existential component of the EMPT program
3. Suggestions for improving the program by focusing on its strengths and limitations

Focus group interviews are known to be a very good tool for tapping into participants' reactions to an intervention, in the sense that focus-group interviews enable interactions among group members and thereby facilitates multiple ideas, perspectives, and feelings to flow free. This can enhance the richness and plurality of the data gathered as compared to individual interviews (Krueger & Casey, 2015). As the main purposes of the qualitative data collection in the current study were to gather diverse opinions about the EMPT program from the participants as well as to probe into the participants' subjective experiences and possible inner changes due to the program therefore, small group interview focusing on guiding participants to express themselves on this respect was deemed as an appropriate choice for qualitative data collection.

The guiding questions of the focus group interview were designed according to principles suggested by Krueger and Casey (2015). For instance, open-ended questions were used to encourage a spectrum of responses rather than mere "yes" and "no" replies. Questions were asked with the main reference towards thinking back and self-reflecting. This aimed to set the stage for bringing participants into awareness of what the EMPT journey was like, personally, for each individual. Furthermore, the big "why" questions were deliberately avoided in order to contain the participants' responses within the realm of their experiences rather than directing them towards responses about their reasonings. Given the possibility that group members might feel hesitant to discussing the less positive aspects of the intervention, the current study has carefully designed the guiding questions to gear towards constructive feedback as well as openness towards honesty. Furthermore, in the beginning of each

interview, the interviewer framed the subsequent group interactions as a journey of self-reflection that was supported by all members. Within this context, the interviewer positioned herself as a group member who was supporting others as well as herself to reflect upon the experiences of the intervention. This positioning, together with the careful design of the guiding questions, largely reduced the potential threats posted by demand characteristics and experimenter expectancy effect. Please refer to Appendix H for the guiding questions of the focus group interview. Please refer to figure 3 below for data collection method.

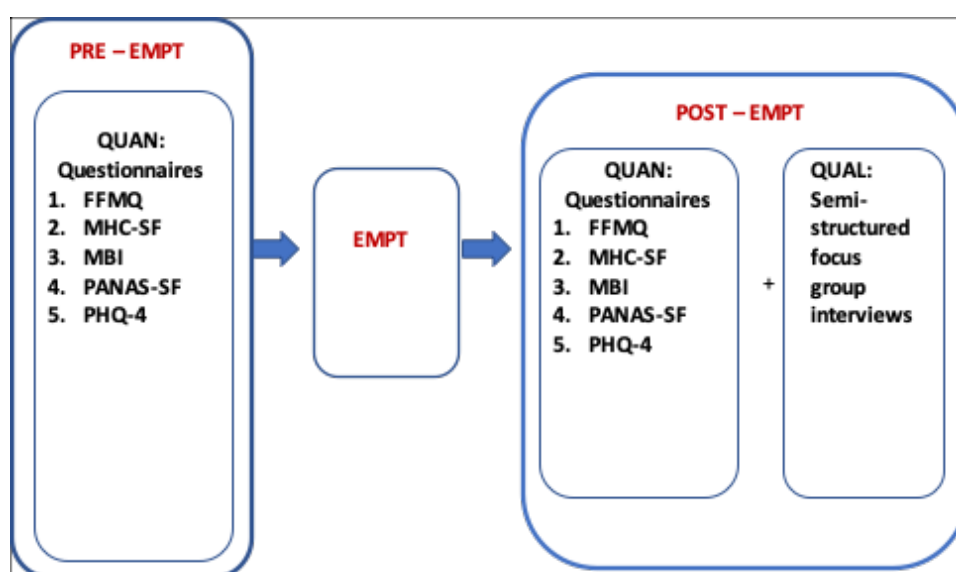


Figure 3. Method of Data Collection

### Data Analysis

For the quantitative component of the study, paired t-tests were used to compare pre- and post-intervention scores in mindfulness, well-being, and ill-being. Cohen's d effect size was used to gauge the magnitude of the differences (Cumming, 2012; Cohen, 1988). For the qualitative component of the study, thematic analysis was used to analyze the focus group interviews (Wolcott, 1994).

For the qualitative component of the study, the deductive approach was used; that is, the research questions were used to guide the qualitative data analysis. In the current study, the qualitative data were used for triangulation with the quantitative data as well as to provide

additional information to enrich the entire data set. The qualitative data analysis began with creating a collection of quotations from different interviewees of the focus group interviews and then organizing them according to topics relating to the research questions (Lecompte & Schensul, 1999). Topics included subjective experiences with the existential component of EMPT, subjective experiences with the practical component of EMPT, and opinions about the EMPT program. Furthermore, the approach of narrative analysis was used to analyze the quotations (Bernard, 2000). With narrative analysis, the quotations were interpreted at two levels: the first level asked the question of what the participants were trying to express in the quotations, and the second level asked the question of what the meaning of the quotations are, especially with reference to the research questions of the study.

It is worthy of noting that, in the current study, the interviewer who conducted the focus group interviews was also the person who conducted the intervention. This might open up possibilities for biased responses due to demand characteristics and experimenter expectancy effect (Salkind, 2010). Accordingly, demand characteristics refer to the tendency of participants to feel obliged to cooperate with the researcher; while experimenter expectancy effect refers to the unconscious probing and behaving of researchers who might subtly show their biases as well as preferences due to their orientation towards particular theoretical perspectives. These cautions have been carefully considered in the current research study before arriving at the decision for the researcher who was running the program to conduct the focus group interviews. With regard to the experimenter expectancy effect, if a Research Assistant has been hired to conduct the focus group interviews, s/he also could carry over subtle favoritisms towards the positive side of the intervention program. Since it is not possible, anyhow, to mask the purpose of the interviews from the interviewer; then conducting the interviews by the person who implemented the program has an irreplaceable

advantage. Namely, that she knew the program well enough that she would be able to effectively probe and guide the participants to reflect upon their experiences with it.

Moreover, because the person who was running EMPT has been a teacher educator in Hong Kong for almost two decades, and that the individual has had many experiences in discussing the pros and cons of her own teaching with her students, therefore, she is confident and open enough to invite participants in the study to explicate their experiences of EMPT. To illustrate, according to the interviews' transcripts, there were moments during the interviews that the interviewer was self-reflecting and critiquing the shortcomings of the conducted program along with the participants. In addition, she is equipped with micro skills in helping participants to reflect and to make meaning of what they had experienced, which is what is needed to conduct the focus group interviews of this study.

With regard to the issue of demand characteristics, firstly, the researcher herself never assumed that EMPT is one-size-fit for everyone. As with every program or intervention designed, the research team is well aware that there are specific conditions that foster the impact of EMPT and there are those that undermine its effect. In fact, one of the research aims of this study is to try shed light upon what makes EMPT work and for whom? It was with this in mind that the interviewer conducted the focus group interviews and, hence, constructive and honest feedback from participants was being sought after rather than praises for the program. It had been ensured that this aim was clearly communicated to the participants in each interview. Furthermore, in the current study, the researcher-interviewer had no other professional ties with participants of either groups; therefore, this downplayed the possibility of any power issues involved.

## Chapter 4: Results

This chapter focuses on reporting the quantitative results and then proceeds to the qualitative results. All analyses are reported separately for the U Group and KG Group.

### Quantitative results

Table 2 summarizes the bivariate correlates among the variables. To address the first research question (whether EMPT increased mindfulness) and the second research question (whether EMPT increased well-being and decreased ill-being), paired *t*-tests of pre and post-intervention were performed for all relevant measures. Alpha level was adjustment based on Bonferroni correction to avoid inflated Type I errors. The correction was based on the number of factors in each inventory ( $0.05 / \text{number of factor}$ ). In the following sections, quantitative results of the U Group are reported first and then followed by quantitative results of the KG Group.

#### Pre and post intervention results for the U Group

***Mindfulness scores pre and post intervention.*** The Five Facets Mindfulness Questionnaire (FFMQ) was used to tap into participants' mindfulness with higher scores signifying increase in mindfulness. In addition, the five facets' sub-scores were calculated by dividing the total in each category by the number of items in that category for the average category score.

Results of paired *t*-tests (corrected alpha level = .01) showed that out of the five facets of mindfulness measured, two were significantly increased after the intervention, namely, the "Observant" (marginally significant) and the "Non-reactivity". In comparing the "Observant" facet of mindfulness, the post-intervention scores were significantly different from the pre-intervention scores; with  $t(14) = 2.657, p < 0.05$ . The effect size of this difference in mean scores was small (Cohen's  $D = 0.38$ ). In comparing the "Non-reactivity" component, the



post-intervention scores were significantly different from the pre-intervention scores, with  $t(14) = 3.286, p < 0.05$ .

The effect size in difference was found to be medium (0.53). A small effect size of Cohen D refers to  $d = 0.2$ , a medium effect size refers to  $d = 0.5$  and a large effect size refers to  $d = 0.8$  (Cohen, 1988). Nonetheless, it is worthy to underscore that the values should not be interpreted rigidly because a small effect size may have a large practical positive consequence both in society at large as well as at an individual level (Laken, 2013).

Paired  $t$ -tests showed that the other three facets of mindfulness which include “Describing mental states,” “Acting with awareness,” and “Nonjudgmental” did not differ significantly in scores before and after the intervention. Please refer to Table 3 for the summary of the FFMQ paired  $t$ -tests results of U Group.

“Non-reactivity” refers to a person’s ability to be less reactive to his/her own thoughts and feelings. “Observant” refers to a person’s ability to notice sensations caused by his/her five senses as well as to notice his/her mental states. As these two facets of the measured mindfulness were significantly improved after the EMPT, it is very likely that the program has fostered the U participants’ abilities to be more observant of their external and internal states at presence. Moreover, the program is likely to have enhanced U participants’ capability to refraining from over-identifying with their own emotions and thoughts. Interestingly, not all five facets of mindfulness were fostered at the same level through the EMPT and it might have to do with the design and/or the implementation of the program. Details of the relationships between the change in mindfulness scores and the program design as well as delivery could be found in the discussion chapter.

Table 2 *Pre and post-intervention pairwise correlation (n = 24)*

Variables	1	2	3	4	4	5	6	7	8	9	10	11	12	13
1 Observ	1.00	0.20	0.17	0.08	0.59*	-.33	-.08	0.28	0.35	0.63*	0.58*	0.66*	0.16	0.03
2 Describe	-.06		0.17	0.13	0.28	-.28	-.23	-.16	0.11	0.14	0.14	0.53*	-0.19	-0.14
3 Act	-.05	0.23		0.66*	0.18	-.09	-.27	-.20	0.32	0.13	0.35	0.28	-0.50*	-0.46*
4 Aware	-.20	-.00	0.13		0.28	-.33	-.04	-.31	0.30	0.18	0.16	0.21	-0.56*	-0.46*
5 Non judge	0.26	-.08	0.30	0.42*		-.35	-.20	0.22	0.04	0.39*	0.28	0.23	0.07	0.01
6 Non react	-.06	-.14	-.40*	-.09	-.024		0.19	0.52*	-.60*	-.054*	-.47*	-.56*	0.47*	0.41*
7 EE	0.05	-.34	-.44*	-.14	-.043*	0.55*		0.24	-.20	-.023	-.030	-.11	0.17	0.10
8 PA	0.14	-.43*	-.57*	0.13	0.21	0.35	0.11		-.45*	0.14	0.07	-.03	0.60*	0.43*
9 DP	0.46*	0.07	0.41*	0.22	0.45*	-.51*	-.53*	-.28		0.49*	0.46*	0.56*	-.55*	-.57*
10 EWB	0.26	0.08	0.36	0.14	0.56*	-.48*	-.68*	0.07	0.60*		0.76*	0.59*	-.17	-.37
11 PWB	0.09	0.23	0.44*	-.11	0.41*	-.39*	-.69*	-.20	0.56*	0.80*		0.65*	-.26	-.36
12 SWB	0.44*	0.09	0.30	0.01	0.35	-.37	-.57*	-.13	0.69*	0.63*	0.54*		-.24	-.39*
13 PosAf	0.07	-.31	-.69*	-.43*	-.054*	0.53*	0.64*	0.38	-.49*	-.38	-.47*	-.33		0.77*
14 NegAf	-.21	-.11	-.37	-.37	-.076*	0.53*	0.59*	0.17	-.68*	-.66*	-.58*	-.58*	0.68*	1.00

Note: Correlations below the diagonal pertain to the pretest and correlations above the diagonal pertain to the posttest. \* $p < .05$ .

Table 3

*U Group FFMQ paired t-tests (n = 14)*

MF Facet	Pretest Mean	SD	Posttest mean	SD	t-value	Sig Level	Effect Size
Observing	3.12	0.83	3.68	0.47	-2.657	0.019*	0.38* (Small)
Describing	3.10	0.66	3.37	0.53	-1.399	0.184	0.22
Acting with awareness	2.77	0.55	2.88	0.80	-0.505	0.621	0.08
Non-judging	2.63	0.77	2.87	0.64	-1.127	0.279	0.17
Non-reactivity	2.52	0.53	3.13	0.45	-3.286	0.005**	0.53* (Medium)

Note: \*\*  $p < .01$  \* $p < .05$ 

To summarize, the encouraging trends of improvement of the U participants' mindfulness after attending EMPT provide evidence that the program was effective in helping the U participants to become more mindful. Specifically, EMPT appears to be more effective in fostering the aspects of mindfulness that have to do with a person's abilities to notice external and internal states in present moment, as well as to become less preoccupied and therefore less likely to over-identify with a person's own thoughts and feelings.

***Well-being and ill-being scores pre and post intervention.*** When paired t-tests were conducted to compare the pre and post intervention scores of the Mental Health Continuum (MHC-SF; corrected alpha level = .025), it was found that "Emotional Well-being," one out of three facets of mental well-being measured, had reached a statistically significant level of increase:  $t(14) = 2.419, p < 0.05$ . The effect size of this difference was small (0.22). Paired t-tests had shown that the "Psychological Well-being" and "Social Well-being" were in the trend of improvement but have not reached any statistically significant level. Please refer to table below (Table 4) for details of the MHC-SF paired t-tests results of U Group:

Table 4

*U Group MHC-SF paired t-tests (n = 14)*

Mental being	Well-	Pretest Mean	SD	Posttest mean	SD	t-value	Sig Level	Effect Size
Emotional		2.84	1.14	3.31	0.96	-2.419	0.03*	0.22* (Small)
Psychological		2.90	0.87	3.19	0.56	-1.394	0.185	0.19
Social		2.71	0.98	2.93	0.87	-1.006	0.331	0.12

Note: \* $p < .05$ 

According to the above findings, there was an improvement in mental health among the U Group participants after they had joined the EMPT. More specifically, evidence showed that the improvement of emotional health among participants has taken precedence over the other two aspects of mental health; namely, social and psychological. This finding is not at all surprising, given that the improvement in psychological well-being and social well-being require changes that are more fundamental and involving more supportive conditions. For instance, psychological well-being has to take consideration of an individual's developed sense of self and self-esteem. Similarly, social well-being is concerned with a secure sense of belonging as well as the forging of good quality interpersonal relationships. These conditions cannot be developed and fostered within a few months with one class per week. In fact, it is promising that EMPT, in the absence of any explicit encouragement to sustain what had been taught and practiced beyond the classes, has found to have impact on bettering emotional well-being of the participants, especially given that the EMPT has not been designed to directly foster positive emotions nor to diminish negative emotions. The entire program only promotes mindfulness practices and existential exploration at a personal level.

Paired *t*-tests were also conducted to compare the pre- and post- intervention scores of the participants' frequencies in experiencing both positive and negative affect of Positive Affect and Negative Affect Schedule (PANAS-SF). Results showed significant increase in positive affect as well as significant decrease in negative affect among U participants after

they attended EMPT. The paired  $t$ -test (corrected alpha level = .025) result for “Positive Affect” is  $t(14) = 2.967, p < 0.05$  and effect size is small (0.32). The paired  $t$ -test result for “Negative Affect” is  $t(14) = 3.967, p < 0.05$  and the effect size is small (0.39). Please refer to Table 5 below for the PANAS-SF paired  $t$ -test results of U Group.

Table 5

*U Group PANAS-SF paired t-test (n = 14)*

Affect	Pretest Mean	SD	Posttest mean	SD	t-value	Sig Level	Effect Size
Positive	2.85	0.66	3.26	0.57	-2.966	0.01*	0.32 (Small)
Negative	3.23	0.76	2.55	0.84	3.967	0.001**	0.39 (Small)

Note: \*\*  $p < .01$  \* $p < .05$

Paired  $t$ -test results of Maslach Burnout Inventory (MBI) showed that two out of three aspects of burnout had been significantly improved among the U participants (corrected alpha level = .017). Specifically, the post-intervention scores were significantly different from the pre-intervention scores of “Emotional Exhaustion” and “Personal Accomplishment”: for “Emotional Exhaustion”,  $t(14) = 2.614, p < 0.05$  and with a small effect size of 0.32; for “Personal Accomplishment”  $t(14) = 3.094, p < 0.05$  and with a small size effect of 0.37. However, the “Depersonalization” aspect of burnout did not come out as significantly different after the intervention. In addition, another ill-being measure, the Ultra-Brief Screening Scale for Anxiety and Depression (PHQ-4) also showed a significant decrease in anxiety and depression after the intervention:  $t(14) = 3.55, p < 0.05$  and with a medium effect size of 0.38. Please refer to Tables 6 and 7 for summaries.

Table 6

*U Group MBI paired t-tests (n = 14)*

Aspects of Burnout	Pretest Mean	SD	Posttest mean	SD	t-value	Sig Level	Effect Size
Emotional exhaustion	3.47	0.68	2.97	0.81	2.614	0.02*	0.32 (Small)
Personal accomplishment	3.63	0.84	3.05	0.60	3.094	0.008*	0.37 (Small)
Depersonalization	2.06	0.78	2.01	0.43	0.219	0.83	0.04

Note: \* $p < .05$ 

Table 7

*U Group PHQ-4 paired t-tests (n = 14)*

Pretest Mean	SD	Posttest mean	SD	t-value	Sig Level	Effect Size
1.83	0.79	1.21	0.74	3.55	0.003*	0.38 (Medium)

Note: \* $p < .05$ 

The above findings suggest that the EMPT is effective in helping the U participants to alleviate sense of ill-being including burnout (emotional exhaustion and lack of personal accomplishment), anxiety, as well as depression. It is particularly important to note the positive impact that EMPT has on reducing burnout among the U participants. As members of the local teaching as well as teaching-related professions are constantly confronted with stress, it is encouraging to have figures showing that low-cost practices, such as those introduced in EMPT, could buffer members from burning out as well as effectively diminishing mood issues such as anxiety and depression.

In summary, the significant paired *t*-tests' results indicated an encouraging overall improvement of well-being as well as a diminishing of ill-being after the U group participants attended the EMPT. It is noteworthy to point out that the intervention seems to be more effective in alleviating negative emotions as compared to increasing positive emotions. These quantitative findings are indicative that EMPT has actualized the unique effects of

mindfulness in the intervention. In the sense that EMPT enhanced well-being by firstly bringing awareness into mental fabrications rather than by intervening at the level of increasing positive mental states or decreasing negative mental states. The possible mechanics behind the active ingredients of EMPT are further elaborated in light of the complimenting findings of both quantitative and qualitative results in the discussion chapter.

### **Pre and post intervention results for the KG Group**

***Mindfulness scores pre and post intervention.*** No statistically significant pre- and post-intervention differences were found on any of the five facets of mindfulness as measured by the Five Facets Mindfulness Questionnaire (FFMQ). Please refer to Table 8 for FFMQ paired *t*-tests results of KG Group.

Table 8

*KG FFMQ paired t-tests (n = 10)*

MF Facet	Pretest Mean	SD	Posttest mean	SD	<i>t</i> -value	Sig Level
Observing	3.07	0.61	3.29	0.56	-1.08	ns
Describing	3.16	0.52	3.31	0.37	-0.93	ns
Acting with awareness	3.22	0.66	3.54	0.50	-1.46	ns
Non-judging	2.95	0.72	2.96	0.62	-0.06	ns
Non-reactivity	3.10	0.46	2.89	0.41	1.61	ns

The above findings indicate that EMPT failed to support the KG participants to become more mindful. The various contextual conditions that might have led to such result and additional information regarding these conditions are explicated in the following section on qualitative results. The comparison of conditions which made EMPT work or not work between the U Group and the KG Group are further discussed in the discussion chapter.

***Well-being and ill-being scores pre and post intervention.*** For the KG Group, the relevant paired *t*-tests did not show any statistically significant changes in comparing the pre

and post-intervention scores of all the questionnaires administered of well-being as well as ill-being among the KG participants, after correction of alpha levels in respective inventory. Please refer to Table 9 below for well-being and ill-being paired *t*-tests results of KG Group.

Table 9

*KG Group well-being and ill-being paired t-tests results (n = 10)*

MHC-SF	Pretest Mean	SD	Posttest mean	SD	t- value	Sig Level	Effect Size
Emotional	3.00	0.91	2.88	0.82	0.468	0.65	ns
Psychological	3.17	0.62	2.66	0.76	2.03	0.07	ns
Social	3.02	0.68	2.58	0.78	1.632	0.134	ns
PANAS-SF							
Positive	3.22	0.50	2.86	0.35	-2.284	0.045	ns
Negative	2.75	0.89	2.44	0.66	0.985	0.348	ns
MBI							
Emotional exhaustion	3.93	1.36	3.95	-1.02	0.468	0.650	ns
Personal accomplishment	3.09	1.04	2.83	0.84	2.030	0.070	ns
Depersonalization	2.00	1.22	1.96	1.11	1.632	0.134	ns
PHQ-4	1.36	0.74	1.22	0.56	0.504	0.625	ns

Note: ns = non-significant

The above findings indicate that EMPT has not been able to help increase the KG Group participants' well-being nor decrease their ill-being. Taken the quantitative results of the KG Group together, EMPT as a mindfulness intervention for well-being was not successful in enhancing the KG Group participants' mindfulness and consequently had not been able to better their well-being. In contrast to the quantitative findings of the U Group, no significant changes were found after the KG participants attended EMPT. According to the rationale behind the intervention of the current research, EMPT becomes effective in enhancing participants' well-being via enhancing their mindfulness. Therefore, unlike with the KG Group, when EMPT failed to support the KG participants to become more mindful then, of course, their well-being cannot be fostered. The question remains on what are the conditions that result in the successful implementation of EMPT among participants of the U



Group and what are the conditions that result in the EMPT's failure to increase mindfulness among participants in the KG Group.

***Summary of quantitative results.*** In addressing Research Questions 1 and 2, the U Group participants' mindfulness increased after the intervention. In addition, the measure of their ill-being decreased, and the measure of well-being increased after the intervention. Specifically, the reduction of ill-being appeared to have slightly more impact as compared to the increase in well-being measure. However, results of the KG Group showed no significant changes in mindfulness, ill-being, and well-being measures after the intervention.

### **Qualitative results**

To address the third research question about participants' subjective experiences as regards the EMPT program) and the fourth research question (how EMPT can be improved), focus-group interviews were conducted to learn about the subjective experiences of the participants of EMPT. The findings of the U Group and KG Group are reported separately in the following sections. The responses of each group are divided into three categories: (1) participants' subjective experiences with the practical component of EMPT, (2) participants' subjective experiences with the existential component of EMPT, and (3) participants' suggestions for improvement of the intervention.

In the following sections, qualitative results of the U Group are reported first and then follow by qualitative results of the KG Group.

**Themes from the U Group.** Aside from classifying the U Group qualitative results into the above mentioned three main categories; under each category, the respondents' quotations are further organized into themes.

***Subjective experiences with the practical component of EMPT.*** The practical component of EMPT involved various kinds of guided mindfulness practices. Respondents'

subjective experiences with these mindfulness practices are then being abstracted into themes.

*Theme 1: Increased awareness of the present moment.* One major characteristic of mindfulness is to be able to stay fully present at moment-to-moment experiences in daily existence. This means being fully present and manifesting awareness of momentarily happenings of both external surroundings as well as internal mental processes. The more one is aware, the more mindful s/he is. U Group participants respondents reported to have an increase awareness of the present moment. Please refer to the following quotations as illustration of theme 1.

*“Initially I joined the course hoping to relax. However, I now understand that mindfulness is about concentration and awareness. It is about being at the present moment and doing everything with awareness rather than living a robot existence.”*

*(S6 of U Group)*

In the above quotation, S6 shared her understanding of mindfulness based on her authentic experiences gained from the guided meditative practices in EMPT. To her, mindfulness is not just about relaxing the mind. It is about being fully aware of what she is doing moment-by-moment. S6 particularly contrasted the awareness of here-and-now with a “robot-like existence”, which lacks concentration, awareness, and clarity.

*“As compared to last semester, I feel I am slightly more sober ... Instead of just rushing to finish one thing and then start another, I am a little bit more aware of what I am doing. There are moments when I deliberately reminded myself and asked, ‘what am I doing right now?’” (awareness and observant) (S2 of U Group)*

Similar to S6, S2 used “more sober” to describe herself in the above quotation. S2 further explained that her soberness came from an increase awareness of what she is doing

moment-by-moment. In other words, to S2, this enhanced awareness of the present brings a sense of sobriety in her daily life.

At the preliminary level, it seems that the practical component of EMPT supported some U Group participants to increase their awareness of the present moment in their daily livings and this enhanced awareness, which in turn, brings in concentration and clarity to the quality of their existence.

*Theme 2: Increased ability to disengage from and not to identifying with negative mental states.* At the more advanced level, some U Group participants reported being increasingly able to detect and then to disengage from negative mental states. As explained in the literature review chapter, mindfulness is known to have a buffer effect towards mental fabrications. This is because the enhanced awareness of the present moments could be used to support the maintenance of an appropriate psychological distance from our mental processing. In this way, we would not be over-identifying with our subjective thoughts or emotions and mistaken them as the absolute reality. The below quotations illustrate the respondents' strengthened abilities, via mindfulness, to disengage especially from negative mental processing.

*S1 of U Group: "I notice a change in me. I am quite impatient and an easily stressed person. Now I become more aware of this. When I know that I am tense, I would remind myself to come back to focus on my breathing... Practicing mindfulness makes me a bit calmer." (observant)*

In the above quotation, firstly, S1 reported an increase ability in recognizing her negative emotions. Secondly, S1 reported the successful application of the mindfulness practices to not overly identified with these negative emotions.

*S3 of U Group: "Well, I am a nervous person; also, can be easily irritable.*

*Nowadays, when I find myself getting nervous or angry, then I will try to notice my*

*breathing and even go to drink some warm water to calm down.” (observant, non-reactivity)*

S3 showed her observant ability in recognizing that she easily gets irritable and nervous. Accordingly, her new strategy in dealing with these mental habits is to first create a buffer via mindfulness and then stay aware observing her mental states.

*S4 of U Group: “During my third job interview, in contrast to my first job interview, I did not have time to do a mindfulness meditation before going into the interview room. There was a real difference. In the third one, I was so irritable... versus in my first interview, after a few minutes of mindfulness meditation, I already felt grounded and in clarity. After so many (guided) practices in classes (EMPT) led by an expert, now I can get out of my stress quite quickly with mindfulness.” (observant, describe, non-reactivity)*

In the above quotation, S4 demonstrated his ability to observe and to describe his mental states during times of pressure. S4 further explained that the practice of mindfulness helped him to create a psychological distance (buffer) from mental afflictions and thereby successfully disengage from his negative mental processes. As a result, after practicing mindfulness for a few minutes, S4’s mind settled and return to clarity.

*“For me, another stressful source is thesis writing. In specific, when I am stuck with a very complicated research issue at hand, and I need to meet deadlines. You can’t go beyond and get to the next stage when feeling trapped and very anxious. Now I would use mindfulness meditation to adjust my mental state... It (mindfulness meditation) is like pressing F5 .... Forget everything and reboot again ... the unknown anxiety will be gone, and I can focus again.” (observe, describe) (S4 of U Group).*

In the above quotation, S4 demonstrated his mindfulness abilities in observing and describing his mental states. In addition, his description alluded to the mechanisms of how

mindfulness works to help him gear away from identifying with the mental afflictions and to regain clarity. He used the analogy of pressing F5 to re-boot his computer to explain what it is like to become mindful for him. Apparently, mindfulness is like a pause from all sorts of misperception and confusion that he experienced in non-mindful state; the pause created a buffer for him to disengage from the mental afflictions and thus re-establishing the focus and the stability of his mind.

*S8 of U Group: “When I am suddenly attacked by intense emotions such as fear ... before joining this program, I didn’t know what to do. Now I would try to connect with it (intense negative emotions) ... see, I am not resenting or rejecting it.... I don’t know why, but it subsided and calmed down every time I did this.” (observe, non-judgmental, non-reactivity)*

Mindfulness practices were helpful to S8 in dealing with his intense fear. To him, mindfulness helps him to stay observant and non-reactive towards these intense negative emotions when they arise. Being mindful allowed him to stay with these intense emotions without over-identifying with them nor suppressing them. Instead, S8 can maintain a certain psychological distance from these intense negative emotions and stay presence with these mental afflictions. In the long runs, as the gripping power of these intense negative emotions lessened. It is likely that with these new experiences with his mental afflictions, S8 would have gained a greater sense of volition and empowerment over his sense of self, which might foster S8 sense of well-being.

Taken together, the practical component of EMPT has successfully nurtured U Group participants in enhancing their awareness to stay more fully present in the here-and-now. This enhanced consciousness could reduce chances of individuals to get caught in mental afflictions resulting from ruminating of the past and worrying of the future. In addition, mindfulness practices initiated by the EMPT had increased U Group participants’ abilities to

more easily detect and to then disengage from their mental afflictions. Consequently, the misperceptions and confusions created by over identifying mental afflictions as reality are reduced; while the increase in mindfulness enables the participants to stay free from the grip of negative mental states and hence allowing the experiences of all sorts of positive existence including calmness, clarity and so forth.

***Subjective experiences with the existential component of EMPT.*** The existential component of EMPT includes thematic topics and activities that are based on the big five existential concerns (Pyszczynski, Greenberg, Koole, & Solomon, 2010) explained in the literature review chapter, which include identity, isolation, freedom, meaning, and death. Respondents' subjective experiences with these thematic explorations are then being abstracted into themes.

*Theme 1: The development of existential insights that positively transform how one relates to oneself, others and the transcendent*

*S5 of U Group: "There were always some new ideas that I took away and reflect upon from each class. For example, the class on "Connectedness" really imprinted on me. For the rest of the course, I kept coming back to this theme and keep reflecting upon it. Not that I know how to connect yet, but it is a good start."*

In the thematic session about connection versus isolation, connectedness with oneself and others was explored. From the above quotation, it is likely that S5 was inspired by the exploration on "isolation versus connectedness." This spurred him to contemplate and reconsider the meaning of "connectedness" in his life. This may probably be the reason why he commented that "it is a good start." It is likely that this good start helped him to gain existential insight.

*S8 of U Group: "Before I was not aware that I'd like to keep a distance from others.*

*There was one class when we need to choose to hug or shake hands with one another*

*in an activity. I chose to shake hands with everyone! It dawns on me that I live with others in parallel worlds.” (Theme of Identity and Isolation)*

In the focus group interview, S8 recalled that in the thematic session about connection versus isolation, there was an activity where each group member could choose to connect with others by hugging, shaking hands, and smiling. Majority of the group members had chosen hugging. S8 commented that he was the only one who chose to shake hands in that activity and he said the activity made him realize that he had been trying to keep a distance from the rest of the world. This is an important self-discovery in terms of existential insights because it is the first step in the process of elevating S8 from a sense of isolation towards the fulfilling experiences of being connected with others. This first step in the transformation of relating to himself and others, together with his improving skills in observing and buffering negative emotions, which were being shared in the quotation in the above section on *Subjective experiences of the practical component*, complimenting each other in fostering S8’s well-being.

*S3 of U Group: “My changes are very evident after attending the program. When I first joined, someone scolded me in my school in that very morning ... The sharing broadened my mind ... the group sharing made me realize that each individual can experience and see things so differently ... this makes it easier for me to let go ... it elevates my mind.”*

The above quotation shows the development of an insight regarding the equality and validity of the subjective experiences of each individual human being. It appears that the existential group sharing helped the participant to transform her way of relating to others. In the sense that rather than holding on as well as getting upset about the hostility and wrongness of her co-workers, the existential sharing of EMPT supported her to de-center from her own righteousness and to become increasingly acceptance of people with different

views. This transformation allows for the alleviation of the existential suffering of loneliness, alienation and confining in the righteousness of one's own view. In this case, the change in how S3 relate to others also ignite a change in how she relates to herself. This loosening of the righteousness of one's mindset compliment well with the practice of being mindful which requires participants to be non-judgmental, non-reactive while observing their bodily sensations, mental states, and so forth.

*S3 of U Group: "There was one class with sharing on "Life as A Visitor"; I thought about it a lot that time, one of my previous colleagues was suddenly informed of having a fatal illness. Then I really felt the unpredictability of life, and I felt the need to live this moment fully."*

The thematic session about *Life as A Visitor*, explored the unpredictability and hence the insecure nature of our mortality. It is evident that this sharing has a personal relevance to S3. In the above quotation, she described her shock of knowing her colleagues having fatal illness and she related that unexpected incident to the existential thematic sharing of EMPT. During the *Life as A Visitor* session, the discussion mainly evolved around the nature of our lives as unpredictable but that we have a tendency to want to control because we do not know how to deal with the sense of insecurity which is embedded in the very nature of life. As a result, one of the main priorities in our daily activities is to gain control rather than actualizing our aspirations. S3 described in the above quotation that she had thought about this sharing a lot. It appears that S3's reflection helped her to relate what is happening in her life to the existential concern of death. In doing so, she had gained an existential insight that it is important to fully live moment-by-moment. The development of such an existential insight allows the participant to be freer from unconscious existential anxiety, and together with the mindfulness practices offered in EMPT, made available alternatives that enables the participant to experience her daily living in more fulfilling ways.



To summarize theme 1, U Group participants expressed new existential insights relating to themselves, others, and to something transcendent. In terms of insights about themselves, this involves a deeper understanding of oneself as well as increased introspection towards how one's mind work. Insights with regard to others include a deepening of connection with others and the rest of the world; while the change in subjective experiences in relating to the transcendent includes broadening perspectives in life, increasing abilities to locate oneself within the larger contexts of something beyond, as well as having an increased reflection upon how one's daily life relates meaning in life as an individual.

It is noteworthy to point out that the gathered data showed that these three domains of personal insights are not independent of one another. They seem to work together to positively transform the subjective experiences of an individual. In addition, participants reported more changes on the dimensions of relating to oneself and relating to the transcendent; while there are less reported changes on the dimension of relating to others. This might be due to the design of the program, which would be more closely examined in the discussion chapter.

*Theme 2: The developed existential insights foster the fulfillment of mindfulness practices*

*S4 of U Group: "I learnt a lot from the theme-based group sharing. Members shared so many things that helped me to look at the world, myself as well as the relationships between the world and myself. These were rare opportunities for us to sit together, reflect and share with such depth... There is this "chicken soup effect" which continues and gradually changing my inner. Although I have not witnessed many deaths but when I was small, I almost died a few times due to weak heart conditions. I also like to dive and there was one time I almost got sucked in by water current. These experiences are important for me to look at the meaning of my life. And the*

*mindfulness energy within the group helped me to decipher my thoughts with more depth.”*

To S4, the group sharing of the intervention deepened his existential exploration. Accordingly, sharing brought in richness to the discussion which helped him to look deeper into his ways of relating to himself, others, and the world. In particular, S4 stressed two points in this quotation: firstly, the group sharing spurred him to contemplate what makes his life meaningful within the larger context of his own mortality, and secondly, this existential contemplation became more penetrating because the group members converged with mindfulness energy. As evident from previous quotations, the participant has developed existential insights over the course of attending the group sharing of EMPT, and these insights help him to gradually transform especially in relating to oneself and to the transcendent.

It is worthy to underscore that S4 attributed the development of his transformation as resulting from the integration of both the existential as well as the practical component of mindfulness in EMPT. Accordingly, the resulting positive effects were experienced as “Chicken Soup” for him. “Chicken Soup” usually is used to symbolize nourishment, healing, and rejuvenation, which are all different labels referring to a subjective sense of well-being. In particular, these positive transformations of his inner were possible with the application of being mindful.

*S6 of U Group: “The course helps me to realize that focusing on here-and-now makes my life more meaningful. I feel less busy-for-no-reason nowadays --- I feel a bit more clarity in daily living.”*

Similarly, the above quotation also expressed positive effects of EMPT resulting from an integration between the practical and the existential component of the intervention. To S6, the experiences of being mindful of the present moment gave her clarity in daily living.

Accordingly, this clarity of here-and-now became fulfilling for her in reference to the meaning of her life. As with previous quotations, here is another echo of existential component of EMPT as establishing a platform for the practical mindfulness component to take effect in dealing with the more fundamental and universal pain which lies at the backdrop of the existence of each individual participant (the existential concern of meaning).

*S5 of U Group: "I had attended other mindfulness programs before joining this (EMPT); but I did not know about the theory or the philosophy behind these (mindfulness) meditations. These sharing supplemented me with rationales for doing the mindfulness meditation."*

S5 perceived the existential component of EMPT as providing him with rationale for practicing mindfulness. Accordingly, the group sharing guided him to develop a deeper understanding of the mindfulness practices. From the existential exploration, S5 began to reflect. His reflection included how his mind was working as well as what did it mean to connect. From joining EMPT, S5 gained existential insights which helped orient him to reflect on his way of relating to himself as well as others. It is likely that the introduction of the existential dimension and the relevant skills to alleviate the fundamental pain of existence, available via EMPT, strengthened his motivation to practice mindfulness.

*S3 of U Group: "I have attended other mindfulness courses before I joined this one. But I have never tried to relate mindfulness to daily happenings, like we did in this program ... practicing mindfulness skills can help to calm me down but it alone, cannot help me to broaden my view of life ... To me, the biggest benefit of this program is that it enabled me to look at life with a broader perspective and difficult situations in daily livings become not such big deal for me."*

Evidently, S3 found the existential thematic sharing to be helpful in guiding her to broaden her life view. With existential insights, her mindfulness practices thus increasingly

enabled her to recognize the difficulties that she faced in daily happenings (especially from her teaching profession) were mere mental fabrications, which reminded her that these daily aggravations could be perceived as quite minor compared to what fulfillment life could offer to her at an existential standpoint.

To summarize theme 2, the existential component stimulated the U Group participants to see how mindfulness skills acquired from the practical component can help to alleviate existential sufferings, which are the root causes of numerous kinds of mental afflictions.

***Conditions for successful implementation of EMPT.*** Data gathered from the U Group respondents about the program underscored two conditions for successful implementation of EMPT. The two conditions are recognition of personal relevance to the EMPT program and tailoring the program to the diversified existential needs of participants.

*Recognition of personal relevance of EMPT program.* As described in the methodology chapter, participants of the U group enrolled into the program voluntarily. They have chosen to enroll because, individually, they were going through some transitions and/or stressful life events. During group sharing in the EMPT sessions, individual participants had shared their specific life challenges, which include transitions and stressful events such as loss of close kin due to illnesses, marriage issues, stress of study and future career paths, politics at work, emotional issues such as phobia, loneliness, and so forth. It is clear that these participants chose to join the EMPT program because they recognized that they were in confrontation with life circumstances that were challenging their well-being.

*S1 of U Group: “These few years I had gone through a lot. I had one very close kin who passed away of cancer.... That’s why I said my mood was not good when I first joined the program.”*

*S3 of U Group: “I joined the program when I was really upset (with work politics) and I could see a change in myself from then till now.”*

*S5 of U Group: “During the time when I joined the program, I was facing quite a lot of pressure – from work, study as well as family.”*

*S6 of U Group: “Initially I joined the program hoping to learn how to relax in face of pressure.”*

*S4 of U Group: “I experienced a lot of stress pushing through deadlines for my thesis writing .... There is this unknown anxiety... Job interviewing is another thing that caused stress; since I have very less work experiences.”*

The above quotations show that participants of the U Group knew that their well-being were being challenged and that joining EMPT was one way to seek support in times of difficulties. Evidently, with such recognition of their own well-being status, these participants must have better readiness and stronger motivation to engage in the program because the program is personally relevant to them.

*Tailoring diversified existential needs of participants.* During the focus group interview, it is quite apparent that several participants have been more vocal, and some participants responded less. For example, S2, S6, S7, and S9 expressed themselves less in the focus group interview. This suggests that the EMPT program might be more suitable for some and less for others. The following are some quotations which allude to the issue of diverse needs among participants.

*S5 of U Group: “About outlooks of life, you need to have enough life experiences in order to share with others. For example, I was then like that and so forth. With the younger participants perhaps, they could only sit here and listen ... It might be harder for them to reflect and to relate back the discussed content with their lives at this young age.”*

*S3 of U Group: “I prefer more sessions ... because when we talk about life and also about promoting well-being, it takes time... it’s a slow process.”*

*S3 of U Group: “Perhaps we can have one theme on each session with regard to knowing our mind. And these themes are closely related to ways to promote well-being then it (the program) is even better.”*

*S5 of U Group: “To me, I learnt more with the second part (existential component). Perhaps because from the sharing, I began to know more about how mind works.”*

According to the above quotations, the content of the existential component should more carefully consider the diverse background of the participants. Furthermore, participants expressed wishes to know more about how their mind work and how these mechanisms affect their well-being.

**Themes from the KG Group.** Similar to the U Group, the qualitative feedback of the KG Group is divided into three main categories: participants’ subjective experiences with the practical component of EMPT, participants’ subjective experiences with the existential component of EMPT, and the conditions for successful implementation of EMPT.

***Subjective experiences with the practical component of EMPT.*** One theme was derived from the responses of the KG Group.

*Theme: mindfulness practices perceived as a way for momentary stress relief and relaxation*

*S2 of KG Group: “Although we have lots of pressure but through methods such as Yoga and breathing (taught in classes), we can de-stress.”*

*S3 of KG Group: “I can use belly breathing to relax... yes. But I honestly didn’t go home and keep it up. I mean ... after work, we all have different ways to unwind....”*

*S4 of KG Group: “Perhaps sleeping, playing video games, eating, watching movies and etc. Walking out of the class, after relaxed and slept, it felt good... everything inside slowed down for a moment.”*

In terms of in-class guided mindfulness experiences, some teacher-participants described the practical component as creating a space and time as well as equipping them with the techniques to relax. However, instead of being able to stay focused and to fully connect with the present moment, this group of participants usually fell asleep after being able to relax. From the above quotations, it is very likely that participants had not fully experienced the states of mindfulness in the sessions. The sessions perhaps were only able to benefit them in terms of helping them relax. In fact, the here-and-now experiences had not been mentioned in the entire focus group interview by any participants. The possible reasons for the ineffectiveness of the practical component of EMPT in providing mindfulness experiences to the KG Group are further discussed in later paragraphs.

***Subjective experiences with the existential component of EMPT.*** Due to (a) the shortening of each session to one hour (as compared to two to two and a half hours each), (b) the reduction of the sessions from a total of ten to eight, as well as (c) the challenges in bringing the teacher participants out from their tunnel vision of work and work-related stress; the original design of using group sharing to explore existential themes cannot be carried out for the KG group. Instead, group activities and sharing evolved around releasing less constructive emotions and establishing rapport as well as social support among the colleagues. Nonetheless, as demonstrated in the focused group interviews, the group sharing among the KG teacher participants were quite well received.

*Theme: Emotional release and strengthening of collegiality*

*S5 of KG Group: "I loved the sharing the most ... I can know my colleagues much better... really like this part."*

*S9 of KG Group: "I too like the sharing part more; to me, it is a way to express and to release my emotions."*

*S9 of KG Group: “It is so important for me to be able to express myself when I am not happy. Afterwards, I will be alright. But I also need someone to listen ... to understand me. It is as important to listen to me. I need someone to hear me.”*

*S8 of KG Group: “I feel... well, we stopped classes in the middle. Afterwards we kind of picked it up... we kind of have had eight sessions completed. I am not sure if I am more relax but, for sure, my mindset has changed as compare to the first session. ... I mean it is because my mindset has changed, and this makes me more relax now... We might seemingly be leaving behind all the urgent work to attend these classes but... we gained a space for ourselves ...”*

*S8 of KG Group: “We spent most time on breathing exercises. Wish we have more activities for self-understanding ... it is good, because I think we become emotional (only) when we do not understand ourselves.”*

To some teacher participants, the space created in the program acted like a hub for momentary relaxation and emotional release; be it through strengthening a sense of collegiality, a buffer towards stress, space for expressing, as well as processing their less constructive mental states. Specifically, during the earlier stage of the program, the main content of the sharing was all work-related. However, as the program progressed, participants began to establish trust among one another as well as with the facilitator. This enabled individual participants to open up and walk out of their professional roles to show the authentic side of themselves during the sessions. As a result, several participants had been able to share and to release less constructive emotions in relation to happenings in their personal life during the latter part of the program. This showed that some participants had begun to walk out from the professional persona and became more ready for mindfulness practices as well as for contemplation of personal life meaning. This gradual walking out from professional persona to disclose the more authentic selves suggests that at least some



members of the KG Group began to shift their attention from external happenings to what went on within themselves. For example, S8, in her quotations, admitted that her mindset had changed, and this change somehow resulted in her being calmer. Furthermore, she developed the insight that she needs to understand more about herself in order for better emotional regulation. However, these changes amount to a miniature step, a step that is too insignificant to be captured in the quantitative findings; nonetheless, it is an important step in orienting the teacher participants towards positive change for readiness of mindfulness exploration.

***Conditions for successful implementation of EMPT.*** Data gathered from the KG Group respondents about the program underscored three conditions for successful implementation of EMPT. One of them is a common theme shared with the qualitative findings of U Group; that is, recognition of personal relevance to EMPT program. The other two conditions include arrangement of physical environment and time arrangement.

***Theme 1: Recognition of the personal relevance of the EMPT program.*** As previously explained in the methodology chapter, all the teacher-participants in the KG Group were assigned to join EMPT by their school principal. To provide more details on the background, in the first session, all the participants came into the multifunction room without much idea of what the intervention was about and why they were asked to join. As a result, these teacher participants lacked an explicit sense of personal relevance for joining the program. In fact, as the intervention progressed, these teacher-participants have had to make effort to personally relate themselves to the program.

*S1 of KG Group: “I shared my experiences (of EMPT) with my husband. He said it (mindfulness breathing) is a good thing. I also agreed although I am not good at it.”*

*S2 of KG Group: “Although we are mandatory in attending this program, I still feel it is a good thing. At least we have a space to relax. It’s sort of like doing Yoga which I stopped because I am too busy.”*

*S3 of KG Group: "I had done drama before; they taught us how to breath with our bellies. Thus, when you introduced deep breathing, I can do it and can relax."*

*S4 of KG Group: "I really felt reluctant to be in class in the beginning. Because afterwards we have to go back to work. It created pressure. However, gradually I told myself it is okay; just take it as giving myself a break."*

The above quotations alluded to the fact that being invited by higher management to join EMPT may have undermined the possible personal relevance or perceived values of individual participants in joining the program, to the extent that even at the end of the eight sessions during the focus group interview, individual participants were struggling to give personal meanings to attending the program. Evidently, establishing clear personal relevance in joining EMPT is crucial in terms of the readiness of the participants for mindfulness exploration. Nonetheless, it is encouraging that drawing to an end of the program, at least some of the teacher-participants were becoming increasingly tolerant and even positive about the program.

*Theme 2: Arrangement of physical environment affects participants' readiness to immerse into EMPT*

For the KG Group, due to all kinds of limitations, the intervention classes were held within the kindergarten, inside the multi-functional room where staff meetings, professional development workshops, and all other large group activities such as were being held:

*S1 of KG: "There is a shortcoming of this environment. I mean if we are not doing it in school ... Environment affects our mood. For example, if we do it at EDUHK, we might have experienced (the program) differently."*

*S4 of KG: "I mean look at these small chairs we are sitting on... I'd rather bring a cushion"*

*S1 of KG: “If we can take off our shoes and sit on a mat... feeling relax with aromatic therapy... this will be ideal”*

*S2 of KG Group: “Perhaps if we’d conducted it (EMPT) at the Education University of Hong Kong ... yes, then we would have a different experience.”*

The above quotations pointed out two challenges posed by the physical environment arrangement. Firstly, the multi-functional room of the kindergarten contained all the cues to remind teacher participants of work and work-related stress. This made it difficult for the participants to disengage from work-related mental states and ease off to fully immerse into nurturing their well-being. Secondly, the multi-functional room was always fully booked in between sessions. This made it impossible alter the physical arrangement of the room in order to create atmosphere that transport the teacher-participants away from the workspace to a more relaxed environment for EMPT to take effect. As S2 expressed in her above quotation, if the physical setting could be somewhere else other than the participants’ workplace, they would have had different experiences with the program offered.

*Theme 3: Time arrangement affects participants’ readiness to immerse into EMPT.*

Similarly, due to all kinds of pragmatic limitation, the EMPT for the KG group were being held immediately after classes, below quotations illustrated that this arrangement created challenges for participants to disengage their minds from the work-related stress and to immerse into the intervention program.

*S4 of KG: “I might slow down after this, but it is different ... because after it you still have to go back to work.”*

*S5 of KG: “There are so many things not done yet! After it (EMPT session) you have to stay and keep working ... sometimes work very late ... when you think of this, it is impossible to completely relax (in the session).”*

*S8 of KG: “It’s almost like I have to leave something urgent in order to join (the session) ...”*

*S4 of KG Group: “In the future, perhaps run it (EMPT) during Saturdays ... when there are no students around then maybe we will feel less tense. Really ... perhaps do it (EMPT) in another school and during holidays.”*

Accordingly, after school is the time when teacher participants have to do preparations and follow ups with parents. To them, the one-hour existential-mindfulness classes were perceived as disruptive to their work. Even when they felt that the one-hour session had some benefit, these benefits vaporized and became harder for them to adjust when they returned to the work-stress attitude in the remaining of the evening. As suggested by S4, running EMPT during weekends or parent day or even considering running it during a long weekend might be options which could be considered.

In terms of the participants’ subjective experiences, U Group participants reported developing important existential insights. In particular, they reported increased awareness of the present moment as well as increased ability to disengage from and less likely to over identify with negative mental states in relation to the practical component of EMPT. U Group participants have reported developing existential insights that positively changed their ways of relating to themselves, others and something more transcendent. As well they reported that these developed existential insights fostered their sense of fulfillment in their mindfulness practices with respect to the existential component of EMPT. KG Group participants have reported momentary stress reduction and relaxation with respect to the practical component of EMPT. While KG Group participants reported experiencing emotional releases and strengthening of collegiality with respect to the existential component of EMPT.

In addressing research question four (how EMPT can be improved); both U Group participants and KG Group participants shared valuable first-person experiences for

consideration. One common theme derived from both groups was that recognition of personal relevance of EMPT is important for successful implementation. U Group participants also expressed the importance of EMPT to be tailored to diverse existential needs. KG Group participants alluded to the fact that arrangement of time as well as physical environment can have strong impact on participants' readiness to immerse into the EMPT program.

## Chapter 5: Discussion

The main objectives of the current study were to design, implement, and evaluate the existential mindfulness program for Hong Kong teachers' well-being using both quantitative and qualitative approaches. This chapter first discusses the findings of the current study, followed by the implications of such findings, as well as the limitations of the current research.

### Discussion of findings of the current study

The discussion of the results is divided into three sections: namely, (1) discussion of quantitative findings, (2) discussion of qualitative findings, and (3) integration of quantitative and qualitative findings.

#### Findings of the quantitative study

*Findings on mindfulness measures.* Quantitative results for the U group showed improvements in participants' mindfulness after the intervention. In particular, "Observant" and "Non-reactivity" were found to have significantly increased with small to medium effect sizes, respectively. Results, thus, shown that the other three facets of mindfulness – "Describing," "Acting with awareness," and "Non-judging" – did not have any statistically significant changes. These differential results suggest that the current EMPT is more effective in increasing certain aspects of mindfulness. In particular, the current intervention focused on the development of self-understanding, disengaging from mental afflictions, as well as establishing broader life views. However, the current intervention did not place emphasis on labeling emotions, creating non-judgmental attitude, and so forth. That is, the quantitative findings in terms of changes in mindfulness after the intervention is informative to the limitations of the practical component of EMPT, which is further discussed under the section on limitations of this study. In research studies, there are two common ways to interpret the

scores of the Five Facet Mindfulness Questionnaire (FFMQ): one is based on the total score of the FFMQ and the other is to look at the five sub-scores separately. Majority of the studies on teachers' well-being reported the total score of FFMQ; of those which reported the sub-scores, no consistent patterns are detectable in terms of what types of interventions are more likely to enhance which facet/s of mindfulness measured by the sub-scores of FFMQ (Hwang, Bartlett, Greben & Hand, 2017; Klingbeil & Renshaw, 2018). Partially, it might have to do with the fact that the main focus of these studies is to evaluate whether the designated interventions are effective in enhancing all kinds of well-being, such that the question about how mindfulness and which aspects of it is being enhanced via the interventions has not been the core constituent in these MBI studies. As EMPT is the first of its kind available in evidence-based study, which pilots to examine the mechanism behind how an MBI work to enhance mindfulness, the interpretation of the findings of FFMQ can be best termed as at the explorative level. For this reason, it is not possible to compare the findings of FFMQ with results with other MBI studies for teachers' well-being.

No significant changes of mindfulness were found with the KG group after the intervention. The contrast in the effectiveness of the intervention on participants' mindfulness between the U Group and KG Group suggests that the success of EMPT is contingent upon specific conditions of implementations which were explained in the Results chapter of the current thesis. Detail interpretations about such conditions are discussed in the following section on practical implications of the study.

Overall, the above findings showed partial support to H1. The EMPT program seemed to promote key aspects of mindfulness (observant and non-reactivity) among the U group but not the KG group.

***Findings on well-being measures.*** Quantitative findings have shown significant improvements in U Group participants' well-being and significant reduction on their ill-being

after attending the EMPT program. Improvement in well-being was shown in the terms of the Mental Health Continuum (MHC-SF) (Keyes, 2002). In particular, emotional well-being increased with a small effect size. Reduction in ill-being was shown in scores of the Maslach Burnout Inventory (MBI); wherein, “Emotional Exhaustion” was decreased, and “Personal Accomplishment” was increased, both with small effect sizes. Similarly, the results of Ultra-Brief Screening Scale for Anxiety and Depression (PHQ-4) also indicated that EMPT has been quite effective, with a medium effect size, in helping U Group participants to reduce anxiety and depression. Indeed, the findings seemed to suggest that the EMPT program was probably more effective in decreasing participants’ ill-being as compared to directly improving their well-being. This difference is further discussed in integration with the qualitative findings in light of the possible mechanism that brings mindfulness to benefit well-being – bearing in mind that traditionally, mindfulness has been used to alleviate existential sufferings. With the KG Group, quantitative results did not show significant changes in well-being and ill-being among participants after the intervention. The above findings addressed Research Question 2 of the current study, showing that EMPT is, in general, effective in fostering well-being, especially by reducing ill-being. Similar to the situation with mindfulness, the effectiveness of EMPT in fostering well-being is contingent upon specific conditions of implementations which were explicated in the result chapter of the current thesis. Detailed interpretations about such conditions are discussed in the following section on practical implications of the study. All in all, the quantitative findings of the current study show that teacher-participants’ well-being was enhanced in the U Group: H2 is thus partially confirmed.

**Findings of the qualitative study.** Firstly, a recap of the main findings of the U Group and KG Group is presented. This is followed by a detailed discussion regarding the qualitative findings of the U Group. The detailed discussion of the findings of the U Group is



divided into two sub-sections: detailed discussion of findings of the practical component and detailed discussion of finding of the existential component. The qualitative findings of the KG Group are discussed within the context of specific conditions supporting the success of EMPT, which are presented in the section on practical implications of the study.

Taken together, the qualitative findings addressed Research Question 3 of the current study. Evidently, EMPT has worked to ignite positive personal transformations amongst participants. More importantly, qualitative results indicate that these positive inner transformations resulted from both the practical component, as well as the existential component of mindfulness. The qualitative data also shed light upon the possible relationships between the above-said positive personal transformations and well-being. Hence, the following discussion explores the possible mechanisms of how the positive personal transformations, both resulting from practical as well as existential components of the EMPT program, might have foster participants' well-being.

***Summary of the U Group findings.*** According to the qualitative findings of the U Group, with respect to the practical component, participants have expressed experiencing an increased awareness of dwelling in the present moments in their daily lives (Theme 1 of the practical component). They also described their heightened abilities to observe their own mental states and disengage themselves from mental afflictions. (Theme 2 of the practical component). Both themes converged with the above discussed quantitative finding that the “Observant” facet and the “Non-reactive” facet of mindfulness of U Group were found to be significantly increased after the intervention. These changes allow participants to deal with stress as well as other kinds of negative mental states with increased degree of volition, acceptance, and flexibility. As a result, the practical component of EMPT enabled these individuals to become calmer and more at ease. With respect to the existential component, some participants expressed strong appreciation towards the opportunities to discuss and

reflect upon various existential concerns. They found it helpful in guiding them to develop existential insights, which gradually change their ways of relating to themselves, others, and/or even changing their ways in relating to something more transcendent (Theme 1 of existential component). Furthermore, the participants also expressed that the development of such existential insights provide more meaning to the mindfulness practices learnt in EMPT (Theme 2 of existential component), in the sense that the developed insights enable individuals to enhance their self-understanding as well as to realize the importance of exploring how to live life in more fulfilling manners, all of which tied in to being mindful.

***Summary of the KG Group findings.*** According to the qualitative findings of the KG Group, with respect to the practical component, the participants reported experiencing momentary reduction of stress as well as a certain degree of relaxation. However, none of the KG Group participants reported experiences related to the state of mindfulness, which include sharpened awareness of the present moments, heightened concentration, and clarity of external as well as internal happenings moment-by-moment. With respect to the group sharing (original existential explorations were replaced by emotional support), KG Group participants experienced a stronger sense of collegiality and group trust for emotional release. Nonetheless, none of the participants of the group expressed any process of change in terms of existential insights and personal changes in relating to themselves, others, and the world at large.

***Discussion of qualitative findings of the practical component.*** Prior to getting into further discussion of the qualitative findings, it is better to first establish a point of reference in terms of subjective experiences when individuals are in mindful existence. This reference point can then serve for the discussion of the connection between subjective well-being and mindfulness, based upon the qualitative findings of the current study.

To understand the subjective experiences when individuals are in mindful existence, the differences in existence between mindful versus non-mindful state is compared in the following paragraphs. According to the qualitative findings of the practical component, participants reported an increased awareness of the present moments, as well as strengthened abilities to disengage from and not identify with mental afflictions. In contrast, in non-mindful states, individuals are mostly in auto-pilot conditions, wherein they act and react according to well-formed habituated mental patterns. Moreover, they are less aware of the immediate environment, bodily actions, and sensations, as well as inner thoughts or feelings, moment-by-moment.

As a result, when individuals are in a less mindful state, they are not aware of the mechanism behind the cognizing of their own subjective realities. With low level of awareness of such, it becomes nearly automatic for individuals to over-identify with their immediate mental states, and hence, become over-ridden by all kinds of thoughts and feelings. Consequently, in non-mindful states, individuals are more likely to suffer from mental afflictions, and at the same time, they are rarely able to stay fully present in existence. In contrast, in more mindful states, individuals are more aware of their existence in the present moments, becoming more conscious of both the external and internal happenings in the immediate moments. This subjective experiences of an increase in present moment awareness had been illustrated from the qualitative results of the current study under theme 1 of the practical component of EMPT. Participants reported feeling more “sober” (S2 of U Group) and less in “robot existence” (S6 of U Group) as they are becoming more mindful. Being sober and less robot-like allude to a sense of clarity. A clearer mind results in the person existing in a less confused and more settled state, which is likely to help improve emotional well-being.

Mindfulness also allows us to be aware of how busy our minds are with all kinds of thoughts and feelings. Mind-wandering is the laymen term used to describe how much our minds are in distractions with scattered thoughts and feelings in our daily existences. In normal, less mindful states, mind-wandering is automatic. In neuropsychology this phenomenon, which is generally experienced as mental chatter, has been termed “Default Mode Network” (DMN) of the brain (Raichle, MacLeod, Snyder, Powers, Gusnard, Shulman, 2001). Accordingly, this tendency of the brain’s random chattering further pulls us away from the present moments and easily wander to ruminate the past or to worry about the future (Tao, Liu, Zhang, Li, Qin, Yu & Jiang, 2015). The thought chatters that go on in our heads are usually random and involuntarily. The thought chatter, coupled with the brain negativity bias (Kiken & Shook, 2011; Norris, 2019), which is defined as human brains’ tendency to process negative information more readily than positive information, make it almost unconscious as well as compulsive for individuals in normal and less mindful states to over-identify with negative thoughts and feelings as if they are the absolute reality. This is probably the reasons why it seems difficult for many individuals to disengage from negative mental states, which definitely undermines one’s well-being; and mindfulness meditations have been documented to be able to reduce activities of the DMN (Garrison, Zeffiro, Scheinost, Constable, & Brewer, 2015).

Other than helping us to become aware of the nature of mental chatter, mindfulness also brings in a non-engaging and yet acceptance attitude towards the arising of all kinds of mental states. As illustrated by the qualitative results of the current study under theme 2 of the practical component of EMPT, the ability to detect and disengage from arising mental states reduced distractions as well as reduced over-identification with negative mental afflictions. For instance, participants reported being able to “not resenting or rejecting” the fear attacks (S8 of U Group), and S4 of U Group used the analogy of pressing F5 to re-boot

his mind in order to discern himself from anxiety. In a direct sense, the mindful ability to disengage from mental chattering and brain's negativity bias can directly be fostered by one's emotional well-being; in a deeper sense, the ability to break away from mental afflictions as well as the ability to be aware of how one's mind is working strengthen the sense of volition and self-understanding. In the long run, the development of self-understanding and volition, which is opposite to the quality of unawareness and compulsiveness experienced during non-mindful states, is promising for nurturing eudaimonic well-being (Deci & Ryan, 2006; Marko & Petra, 2015).

Generally speaking, the practical component of EMPT enabled participants to counterbalance human brain's negativity bias as well as the random and involuntarily mental chatter via practicing dwelling in the present moments. In addition, the practical component helped participants to detect and to discern from mental afflictions, and thus, strengthened their sense of volition and self-understanding. These might well be part of the mechanics of how being mindful fosters mental well-being.

***Discussion of findings of the existential component.*** In the section on existentialism in the literature review chapter, there are five main existential concerns that have been empirically studied; they are death, isolation, identity, freedom, and meaning, respectively (Koole, Greenberg & Pyszczynski, 2006). Accordingly, these big five existential concerns encapsulated the universal existential insecurities that all human beings are confronted with. Evidently, these existential insecurities can undermine various domains of well-being (Cavers, Hacking, Erridge, Kendall, Morris and Murray, 2012; Ownsworth & Nash, 2015). However, although important to human's well-being, existential concerns are not usually salient in our daily living. That is, such concerns can be the very core to our existence yet hidden in the background against other happenings that call for immediate attention in our daily lives. Majority of us would not become proactive and seek to explore our existential

insecurities; in fact, the literature of experimental existential psychology (XXP) points out that we are likely to avoid these inevitable but anxiety provoking existential concerns until they confront us in the form of existential threats, which can be defined as life crisis that call in doubts a person's understanding of himself/herself as well as his/her understanding of the world (Koole, Greenberg & Pyszczynski, 2006). Thus, in order for well-being to flourish, exploring existential concerns is fundamentally very useful. In other words, the well-being of humans can be further enhanced when individuals are more equipped to become aware of and to deal with existential insecurities. The existential component of the EMPT program in the current study has been designed based on such rationale.

In the following paragraphs, further discussion of qualitative findings evolving around the two themes of the existential component are addressed using the framework of experimental existential psychology (refer to the literature review about existentialism).

According to the qualitative findings of the U Group, with respect to the existential component, participants reported developing existential insights that positively transform how they relate to themselves, others, and something more transcendent (theme 1 of existential component); as well, they reported that their developed existential insights helped fostering a sense of fulfillment in practicing mindfulness (theme 2 of the existential component).

Since existential threat refers to the need for a person to doubt and hence to re-consider his/her existing understanding of himself/herself as well as his/her existing understanding of the world, logically, when the U Group participants were exploring existential concerns at a personal level, then the discussions were likely to prompt them to examine how they are relating to themselves, others, and the world. This is exactly what had been reported by the participants when they were asked to comment on their personal transformations resulting from the existential discussion offered in the program. For example, the existential thematic exploration helped S5 of U Group to process his feeling of isolation and he was beginning to

realize the need to connect both to himself and to others. Similarly, to S8 of the U Group, the existential component of EMPT has enabled him to realize that he had always kept emotional distance from others. Apparently, the exploration of the existential concerns, specifically of the concern of isolation versus connectedness, has impacted on the EMPT participants, in the sense that they are starting to reflect on their own existential sense of isolation as well as their own need for connection. As already explained in the literature review, developing existential insights at a personal level brings in fulfillment and meaning to individuals' lives.

Other than the existential concern of isolation, the existential concern of death was also elaborated during the focus group interview. For instance, S3 of U Group was impressed by the fragility and unpredictability of life. She processed this existential discussion with the incident of a colleague's sudden discovery of terminal illness, and she developed the insight that she realized that it is important for her to live every moment of her life fully. Similarly, S4 of U Group also reported pondering about his near-death experiences and processing these experiences in the group sharing helped him to place the meaning of his life in better perspective. In exploring the most fundamental concern of death, the EMPT program empowered the participants to confront this ultimate insecurity and, at the same time, reflect on how they want to live their lives perhaps differently and in more personally meaningful manners. Research in XXP has repeatedly shown that the more people suppress their insecurities over their mortality, the more unprepared they are in confrontation of such (Burke, Martens & Faucher, 2010; Martens, Burke, Schimel, & Faucher, 2011; Finch, Iverach, Menzies & Jones, 2016). As "existential philosophers have maintained, existential concerns exert a pervasive influence on human regardless of whether people realize it or not" (Koole, Greenberg & Pyszczynski, 2006). Therefore, being able to explore and to process existential concerns in relation to a person's life is ultimately beneficial for well-being.

From the qualitative findings of the current study, there is a promising possibility that conscious processing of death enables conscious living, and thus add on meaning as well as increase volition to life's choices. As described in the literature review, research has shown that conscious processing of a person's mortality helps to lower their psychological defenses; as well, it was found that individuals with higher trait mindfulness spent longer time writing about their own deaths as compared to those with lower trait mindfulness, when given the opportunity to do so (Niemic, Brown & Kashdan, Cozzolino, Breen & Levesque-Bristol, 2010). This piece of research suggests that there exist mental benefits for individuals to consciously address existential concerns and that being more mindful possibly means being more willing as well as equipped to address these fundamental issues. The data from the current study is converging to such notion by showing that the existential component of EMPT is effective in supporting participants to become aware of and the reflect upon how various existential concerns personally relate to them; and in so doing helps to deepen their self-understanding and to better orient the ways they relate to themselves, others, and even to the world at large.

Aside from offering opportunities and tools for participants to discuss and reflect upon existential concerns in relation to their personal lives, the existential component of EMPT also underscored the importance of framing individuals' lives within the bigger picture of the rest of the world, embracing uncertainties as a way to appreciate the beauty of life, and realizing how being aware of our own mental processes free us from compulsion to overidentify with our thoughts and feelings. According to the qualitative results, these kinds of framing seem to have supported participants positively to process their existential concerns and insecurities in the program. For instance, S3 of U Group reported that the existential discussion on different worldviews have broadened her mind by supporting her to see that how individuals can derive very different subjective experiences while facing the same



external conditions. According to S3, this insight empowered her to let go of her own opinions more easily. This letting go means freedom from rigidity and compulsion of her mental afflictions, which enhances her well-being.

Taken together, the existential component of EMPT enabled the development of existential insights among participants. These insights appear to bring about positive changes in ways that the participants relate to themselves, others, and even to something more transcendent. The resulting inner changes signify deepened self-understanding and increase volition with more conscious mental processing, as well as being able to frame an individual's life within the bigger picture of the rest of the world—all of which are likely to foster well-being.

Not only did the participants of the U Group develop existential insights, but they also reported that these insights made mindfulness practices more fulfilling and meaningful to them (theme 2 of the existential component). For instance, S4 described the effects of the existential component of EMPT as “Chicken Soup.” In addition, the mindful practices allowed him to discern from his mental states and to decipher his own mental processes more effectively. Firstly, the chicken soup effect analogy seems to be referring to an inner nourishment resulting from discussing about existential concerns. Secondly, the mindfulness practices become more meaningful to S4 because he can now use mindfulness to better develop existential insights. S4's subjective experiences converge with the findings of the abovementioned study wherein individuals with higher trait mindfulness tended to spend more time writing about their own deaths (Niemic, Brown & Kashdan, Cozzolino, Breen & Levesque-Bristol, 2010), that somehow, being more mindful better prepare us to explore our existential needs and insecurities.

According to the qualitative findings of the current study, it is likely that mindfulness practices empowered him with a strengthened sense of volition and better self-understanding

to consciously address existential concerns that are fundamentally influential to our lives in terms of securities and meaningfulness. This alluded to the intricate nature of mindfulness practices and existential exploration: on one hand mindfulness practices support individuals to explore their existential needs, and on the other hand, existential explorations provide signposts for individuals to appreciate the deeper meaning of being more mindful. For instance, S5 of U Group reported that he had attended other mindfulness courses prior to EMPT and found those classes useful for stress reduction. However, the existential component of EMPT provided him with the rationale behind being mindful. In this sense, exploration of existential concerns in the program is perceived as providing the backbone for participants to practice mindfulness. Similarly, S3 pointed out that she also had joined other mindfulness courses prior to EMPT. She found the existential component of EMPT useful in helping her to relate mindfulness practices to her daily livings. Accordingly, this is because the existential exploration inspired her to frame her life within broader perspectives and thereby making her life's miseries relatively trivial. A study has shown that non-attachment mediates mindfulness and well-being (Whitehead, Bates, Elphinstone, Yang & Murray, 2019). Non-attachment, in essence, is the ability to letting go of one's thoughts and feelings rather than getting compulsively engulfed by these mental states. When it is easier for a person to let go of his/her thoughts or feelings, then it becomes easier to be more mindful and mental afflictions would gradually lose their power. The increase ability to disengage from mental afflictions reported by U Group participants is definitely allowing these individuals to become one step closer to non-attachment, which is found to be important in fostering well-being.

To summarize, the existential component seems to be effective in supporting participants to consciously address existential insecurities, thereby deepening self-understanding and re-thinking how to live as well as how to relate. The conscious processing

of how to relate to themselves, others, and to the world in large allows the participants to firstly, frame their lives within the bigger picture of other lives; and, in so doing, make non-attachment easier. Secondly when existential concerns are being consciously dealt with, the participants experienced the power of self-understanding and volition to live life fuller. Moreover, they gained a deeper appreciation of being mindful as enabling them to deepen their self-discovery. These insights can help to diminish existential insecurities and to gain an increased sense of self-empowerment amongst the participants of EMPT. Although the current research is merely a miniature first step towards understanding of how existential exploration compliment mindfulness practices, this might help to orient future MBI research for well-being to a new direction. Furthermore, the current study could contribute to revolutionize the way mindfulness is being secularized and adapted for various well-being interventions, in the sense that careful consideration should be made before reducing mindfulness into mere skill-based practices and adopted to become a component of a specific therapeutic interventional framework. According to the initial findings of this study, such approach in MBIs development might eliminate important active ingredients of mindfulness, and thus, undermine its positive impacts on well-being.

### **Implications of current study**

The following discussions attempt to explore the possible implications of the current research to future interventions (practical implications) as well as to future research (theoretical implications).

**Practical implications of current study.** As explained in the literature review chapter, the existing mindfulness-based interventions (MBIs) for promotions of teachers' well-being have three main limitations. Firstly, these major mindfulness-based interventions (SMART, CARE and MBWE) are only making use of the practices of the mindfulness skills while leaving the existential base of mindfulness unrecognized and non-utilized. Secondly,

these interventions have taken a narrower stance of professional development in the promotion of teachers' well-being. In the sense that the MBIs are designed to improve a few specific psychological functioning such as emotional regulations, social competencies, and teachers' efficacy; this narrow stance in MBI development has left a broad range of potential benefits of mindfulness to well-being unactualized. Thirdly, the current study contributes to the practical designing and implementation of MBI for teachers' well-being by shedding light upon the conditions to be considered for future improvement of the design and implementation of EMPT.

Firstly, to date, EMPT is the first attempt in giving back the rich existential component to the secular usage of skill-based mindfulness interventions. The evidence of positive effects of EMPT on participants' well-being strongly suggests that skill-based practices of mindfulness should be supplemented with existential exploration. That is, future MBIs should avoid reducing mindfulness into mere skill-based practices and that future MBIs should adopt existential insights development as an integral part of secular mindfulness in the process of applying mindfulness to well-being interventions.

Moreover, the current study illustrated that addressing existential concerns in a personally relevant manner can work intricately with the skill-based practices of mindfulness to foster well-being. Had the duration of the intervention been longer with take-home exercises for consolidation, the positive effects of EMPT might have been more significant and more permeating. The gradual inner changes, gathering of insights, shift in life perspective, and so forth require time and sustainable support. In the future, the improvement of the existential component of EMPT may lead to greater and more comprehensive impact of MBIs for teachers' well-being.

Secondly, in contrast with the narrower stance that is taken by the existing MBIs for teachers' well-being, which usually focused on improving a few specific psychological

functioning at the expense of neglecting a wide range of positive impacts, the promising results of EMPT supported our claim that an intervention which adopts broader stance of self-growth in professional development, like EMPT, is likely to generate a wider range of positive impacts on teachers' well-being. To illustrate, EMPT supported the development of presence awareness, disengagement from mental afflictions, existential insights, and self-understanding, all of which are beneficial to an overall well-being in a permeating manner. Furthermore, when teachers are in flourishing existence, with better self-understanding and better prepared to address existential anxieties, they are in a better position to embrace all kinds of possible challenges in their professional lives. EMPT helps to demonstrate that a more self-growth based MBI for teachers may have advantages over the specific ones which adopt a narrower professional development stance.

Aside from contributing to establishing a self-growth approach to current teachers' professional development, the current study also contributed to providing evidence-based professional development program for teachers. According to a recent research review of available professional development for teachers' health in Australia, mindfulness development was found to be the most common topic covered (Corbett, Phongsavan, Peralta & Bauman, 2021). Accordingly, majority of these teachers' professional development for wellbeing did not specify the theoretical framework underpinning their program designs. In other words, the development and implementation of these professional development programs were unlikely to be guided by any testable theoretical frameworks. In addition, it is found that the effectiveness of these programs had not been scientifically evaluated. Unfortunately, similar kinds of research review are not available for Hong Kong professional development for teachers' wellbeing. However, given the scanty research conducted in the domain of teachers' wellbeing in Hong Kong, it is unlikely that the local evidence-based programs are more proliferating than in Australia. Therefore, the current study is amongst the

forerunners in contributing to evidence-based professional development program for teachers' wellbeing in Hong Kong. The current study provided theoretical underpinning to the development of EMPT; as well, the study provided evaluations towards the design and implementation of the program.

Thirdly, although the findings of the current study illuminated promising effects of EMPT, the findings also pointed to various aspects of EMPT that require improvement and more careful considerations. More specifically, the quantitative findings of the current study showed that EMPT was effective in enhancing mindfulness and well-being for the U Group but was not effective in doing so for the KG Group; while the qualitative findings of both groups are helpful for shedding light upon specific conditions necessary for EMPT to impact on participants' mindfulness and well-being. The success of EMPT in the U Group as compared to its relative lack of success KG Group provides a valuable lesson for future design and implementation of similar interventions. Possible reasons for this discrepancy would be explained in more details in the coming paragraphs; nonetheless, it is worthy to note that one of the many differences between the U Group and the KG Group is in age and life experience. Due to the non-random sampling, the mentioned difference could be one of the confound affecting the differential effectiveness of the EMPT program between the two groups of participants. The coming paragraphs would be devoted to discerning the conditions necessary for successful delivery of EMPT.

Overall speaking, the current study contributes to future MBIs for teachers' well-being by drawing attention to the following three aspects of support for EMPT to be effective: (1) helping teachers-participants to recognize the personal relevancy of the intervention, (2), tailoring the existential exploration to diverse needs of individuals participants, and (3) recognizing and minimizing external factors that can hinder teachers-participants in full immersion into the mindfulness intervention.

The following observations led to some recommendations for the improvement of EMPT: first, due to the differences in the process of participants' recruitment between the U Group and the KG Group (refer to methodology chapter for recruitment details), the participants of the KG Group were unclear of how EMPT could be relevant to their personal well-being. Consequently, these participants expressed more struggles in trying to make sense of the intervention. As well, they were less enthusiastic about attending the intervention because they had not discovered the personal relevance of the program. Therefore, for future improvement, it is recommended that the design of EMPT shall include a few preliminary sessions for introducing mindfulness and well-being. In addition, these preliminary sessions shall include activities that support the participants to link the program with their personal well-being agenda. Second, participants from the U Group had pointed out that the materials used to inspire existential exploration might be more relevant to individuals who either have affinities towards philosophy or who have had gone through many life challenges.

In light of this, it is recommended that the design of EMPT shall be improved by tailoring to diverse needs of individual participants. For instance, placing the focus on participants' thoughts and feelings about their own well-being may be a good start off point to relate to existential concerns which are more immediately relevant at individual level. Third, the current study pointed out the importance of creating an environment within which teachers' participants can feel relax and being able to let go of their professional persona. Apparently, these conditions are the precursors for participants to be able to enter the states of mindfulness. For this reason, running the intervention in the workplace, attending the sessions in between their work and failing to create a refreshing setting are a few suggestions for implementation improvement.

To summarize, the practical implications of this study include the success of reintegrating development of existential insights at a personal level with the skill-based

practices of mindfulness, the promising positive impact of a MBI that does not add on non-mindful elements in its design on teachers' well-being, the illustration of the benefit of adopting a broader stance of teachers' professional development as well as shedding light upon the necessary conditions that support success of similar interventions.

**Theoretical implications of current study.** There are two main theoretical implications of the study. Firstly, this study orients future research of MBIs on well-being towards the mechanism as well as the positive impacts of integrating existential exploration with mindfulness practices. Secondly, this study extended MBI research to teachers as past studies have mostly focuses on its efficacy in clinical settings.

There exists a volume of mindfulness research examining the beneficial effect as well as the mechanism of mindfulness. These studies typically either compare non-meditators with meditators; or they directly investigate the neurobiology of meditators (Brandmeyer, Delorme, & Wahbeh, 2019; Chiesa & Serretti, 2010; Newberg, Wintering, Waldman, Amen, Khalsa & Alavi, 2010; Tang, Holzel & Posner, 2015). Studies comparing meditators to non-meditators use statistical models to test possible psychological attributes that mediate mindfulness and well-being. The psychological attributes being selected for examination are mostly theory driven. The studies done on neurobiology of meditators are informative at the structural level but only inferential at the level of psychological functioning and processing.

Arguably, both types of mindfulness research have their limitations in understanding the process of mindfulness development and its effect on psychological functioning, especially among non-meditators. In this sense, studying the mechanism of mindfulness, especially of how the development of existential insights compliment skill-based mindfulness practices, in secular usage is promising to illuminate how to better adopt mindfulness to secular usage on well-being. As of to date, there has not been study of mindfulness-based intervention that focus particularly on examining the mechanism of how mindfulness work in



developing a better sense of well-being among non-meditators. One possible reason of the lack of such an MBI study might be because majority of the existing MBIs developed for well-being have added non-mindful components into their programs, which make it harder to identify the unique effect of mindfulness on well-being — let alone being able to examine the mechanism behind (Harrington & Loffredo, 2010; Purser & Milillo, 2015). EMPT is an MBI for teachers' well-being that has not add any non-mindful component into its design.

Moreover, EMPT is designed to return the rich existential component of its traditional origin, back to the secularized application of mindfulness practices, and hopefully, thereby piloting future MBI studies to research on to better make use of the active ingredients of mindfulness in a well-being intervention.

The existing research on teachers' well-being, by and large, focuses on studying the effects of different kinds of MBIs. These MBIs differ widely, first, in the proportion of skill-based mindfulness practices in comparison to other non-mindful elements of treatment, and second, these interventions make use of as well as integrate mindfulness practices into their programs in diverse manner. Consequently, it becomes extremely challenging to compare the effectiveness across these MBIs (Klingbeil & Renshaw, 2018). The current program (EMPT), although placing mindfulness in a secular context, is designed in accord with the underpinning of the Buddhist tradition, which includes skill-based practices on mindfulness that are being experienced within the larger context of Buddhists' view on how to alleviate existential sufferings. The only secularization made of EMPT, is the replacing of Buddhists' philosophy, with open-ended exploration of existential concerns, in accord with individuals' personal affinities. Unlike the existing MBIs for teachers' well-being that have added non-mindful components which adhere to different philosophical/theoretical underpinnings into their interventions, EMPT is the first of its kind that has not include any confounding interventional elements into the program design. In this way, whatever interventional effects

obtained could be more confidently attributed to the contribution of mindfulness training in the program.

In this sense, compared to the existing MBIs for teachers' well-being, the unique design of EMPT allows future research of it to systematically manipulate the EMPT ingredients with active controls in order to closely examine its impact on various aspects of teachers' well-being. This could also allow for more scientific comparisons, and thus, better understanding of how MBIs promote well-being among teachers.

To summarize the theoretical implications of the current study, it extends the teachers' well-being literature by, first, calling the attention to the possibility of utilizing cost effective MBIs as a major mean to foster teachers' well-being. Second, this study alluded to the promising potential of integrating the existential aspect and the practical aspect of mindfulness in the development of MBI for teachers' well-being. Specifically, such an integration might enrich a more encompassing range of teachers' well-being with sustainability. In addition, the promising positive effect of EMPT paved the way for future research focusing on investigating the mechanism of how mindfulness work in MBI in promoting various kinds of well-being, especially in relation to the re-integration of existential exploration with the skill-based practices of mindfulness.

### **Limitations of current study**

As promising as the current study is, with its incremental contribution towards research in mindfulness as well as to research on teachers' well-being, it is essential to identify limitations of the study. In particular, the discussion on limitations of the current study has two foci; namely, limitations relating to the intervention and limitations related to the methodology.

**Limitations related to the intervention.** The EMPT is an initial attempt towards a low-cost, flexible, and sustainable program for promoting well-being of teachers. Although

the results showed some positive impact, there exist limitations which need to be overcome in order to improve the intervention in the future. The following paragraphs focus on discussing such limitations based on the findings of the current research study.

With regard to the existential component of the current EMPT, findings suggest that participants seem to be more affected by some particular topics and less by others. For example, participants have expressed personal relevance with topics such as death, isolation, and meaning. However, none of the participants mentioned topics of identity and freedom. This is indicative that the five main existential concerns have not been addressed equally and systematically enough in the current EMPT. Perhaps, in the future refinements of the EMPT, researchers can include topics that explore professional and personal identities. Future studies can also delve into the existential concern for freedom by exploring topics related to the importance of developing autonomy within an individual's life. Developing an awareness of how identities shape our thoughts and feelings is helpful for deepening self-understanding as well as for strengthening mindfulness practices.

With regard to the practical component of the current EMPT, out of the four domains of mindfulness (body, sensations, mind, and phenomena), majority of the mindfulness practices are only focused on the body and the mind. Sensation and phenomena are left uncovered. The leaving out of the other two mindfulness domains can weaken the impact of mindfulness practices. In addition, the current existential component could incorporate more learning materials with multi-sensory modalities. The purpose of such is to enhance the participants' authentic experiences with existential explorations, since the findings showed that some participants, especially those who have had lesser life experiences, might have found the existential component less personally relevant. Therefore, on top of the usage of Ted Talks, books, and group activities as a base for sharing, other sensory modalities could be

utilized in existential-based activities, including sand drawing, nature-related explorations, and multi-media short stories, among others.

Aside from above specific limitations, there are two more general ones which are as follows: The current EMPT is heavily dependent upon the facilitators for effective program implementation, and it lacks daily based activities to consolidate both existential exploration as well as mindfulness practices. Recall that the basic structure of EMPT consists of ten sessions, two hours each. Each session is approximately equally divided into two parts: first half on existential group sharing and the latter half on mindfulness practices. The existential component is heavily dependent on the skills of the facilitator in scaffolding the group discussions. Similarly, the practical component contains different kinds of mindfulness activities, which solely depended on the guidance of the facilitator. This implies that the program can become costly due to its labor-intensive nature.

Moreover, additional training for facilitators might be necessary in order to maintain the quality of the current intervention. To go beyond this limitation, more in-class written materials should be prepared for each session. These written exercises should be well structured to help guide participants to deepen their reflection as well as discussion over various existential concerns. Furthermore, specific written exercises should be designed for the purpose of bridging the existential discussion to the mindfulness practices.

Aside from integrating written exercises into the structure of EMPT, it is essential to incorporate daily out-of-class miniature activities for participants to extend the existential-mindfulness practices to their daily lives. This is because the design of the current EMPT has not taken into the consideration of the sustainability and the possible development of long-term benefits of the EMPT to participants' well-being after the intervention. For instance, findings of the current study showed that EMPT has been effective in enhancing emotional well-being but not psychological well-being. It is likely because psychological well-being

takes more time and effort to nurture as compare to emotional enhancement. Psychological well-being involves the development of a healthy sense of self (Ryff, 2014), which probably takes more than ten sessions to establish. Particularly, it takes long-term integration of mindfulness into a person's daily living for the building up of psychological well-being. In this sense, the incorporation of daily out of class miniature activities should be helpful not just to consolidate the in-class learning experiences but also to help participants to establish a new behavioral repertoire that can strengthen the reservoir of existential-mindfulness well-being.

**Limitations related to the methodology.** Adhering to the main purpose of the current research as evaluating the design and implementation of a newly developed mindfulness-based intervention (EMPT) for teachers' wellbeing, the study has inherited shortfalls associated with program evaluation such as practical challenges in random assignment, small sample size, variations in the implementation process and the uncertainties surrounding the issue of what to measure and how (Lipsey & Cordray, 2000). Nonetheless, the potential practical contributions of developing and delivering an effective intervention to promote teachers' wellbeing, outweighed challenges associated with program evaluations. Such challenges could be overcoming by improvement measures made in future research based on the lesson of limitations learnt from the current study. For instance, several limitations of the research studies have been repeatedly underscored to have undermined the evidence quality. Such limitations include the diversity of the MBI content, small sample size, the negligence of the importance of intervention fidelity, the lack of active control groups, the tendency to overly rely on self-report measures as well as the issue of the sustainability of the interventional effects (Hwang, Bartlett, Greben & Hand, 2017; Emerson, Leyland, Hudson, Rowse, Hanley & Hugh-Jones, 2017).

Overall, the evidence quality of the current research should be evaluated in the light of these issues. Pertaining to the diversity of the content of the existing MBIs, as explained in the literature review chapter, majority of the mainstream MBIs for teachers have added non-mindfulness components in their programs in diversified ways. In contrast, the current EMPT program has not included any additional non-mindfulness component, which simplified the issue. However, small sample size has limited the kinds of statistical analysis that could be conducted for the current study. Hence, future relevant research should seriously consider to overcoming the challenge of recruitment with better planning.

With intervention fidelity, the current research has provided a program protocol. However, other measures such as standardizing the learning materials, recording the interventions sessions for cross-checking of implementation quality and so forth were not being included in the current research. Hence, future research on EMPT should consider integrating these measures to improve intervention fidelity. In terms of lack of active control groups, the current study adopted the pre- and post-intervention design. In order to enhance quality of evidence there is a need to design studies on EMPT that enable comparisons to be made between active control group and the interventional group. With respect to the choice of measures, the current research used self-report measures in mix mode design. This triangulation in data enhanced the reliability of the study and self-report measures were adopted because the study is focusing on teachers' mental wellbeing, which requires to tap into individuals' subjective experiences. Future research in this area could also consider adding other measures such as coworkers' rating and students' rating of the teachers to strengthen the triangulation.

Finally, measuring the sustainability of an intervention for promoting wellbeing is important. Although, a post-intervention focus group interview was conducted for both the KG Group and the U Group, no other follow up measures were administered. It is strongly recommended that future research studies to include follow up measures of whether

participants continue to engage in mindfulness-related meditative practices, to engage in existential reflection and these practices relate to their wellbeing.

In particular, more specific discussion on the limitations of the research as an attempt to examine the effectiveness of an existential-mindfulness program for teachers' well-being will focus on three points, namely, the need for more rigorous randomized control designs, the need to conduct individual interviews following the focus group interviews, and the need to conduct follow up on participants' mindfulness and well-being after an extensive period.

Recall that the current study uses a mixed-methods design. Due to logistic challenges during the study, a randomized control trial could not be implemented. This highly restricted the interpretations of the findings of the current study. To illustrate, with a randomized experimental design, it is possible to determine the causal relationship between the mindfulness intervention (EMPT) and the subsequent well-being of the participants.

Moreover, by adding randomized active control groups such as one that only contains the practical component of EMPT and another one that only contains the existential component of EMPT, these active control conditions can act as a comparison to the standard EMPT program. This will enable researchers to disentangle the specific effects of the practical and existential components of the program. Therefore, in light of this major limitation of the current study, future studies may use randomized experimental designs.

As for the qualitative methodology, although focus group interviews are very useful in gathering wide range of participants' subjective experiences in joining EMPT, more in-depth follow ups are needed in order to gather specific details about these subjective experiences. Due to the nature of focus group interviews, there is an inherent difficulty in balancing the desire to capture diversity in opinions with the goal of deepening one's understanding of individual's subjective experiences. Therefore, future studies can consider the use of individual interviews. Perhaps, it might be better to first conduct focus group interviews to

collect a wider range of opinions, thoughts, and feelings about EMPT; then, select some participants to invite for in-depth individual interviews. Selection could be prioritized by choosing those who need to follow up for elaboration as well as in choosing to invite those who had not expressed much during the focus group interviews.

Lastly, the current study duration was confined to a limited time period. Delayed post-tests might be needed (e.g., 3-month and 6-month follow-ups). These follow-ups can provide valuable information about the sustainability of the EMPT intervention effects. Aside from distributing inventories measuring well-being and mindfulness, these long-term post intervention follow-ups could also obtain additional information about participants' intentions to continue practicing mindfulness and other relevant existential concerns. In this way, longer term effect of EMPT on participants' mindfulness and well-being could be studied and further recommendations for program improvement could be developed.

## **Conclusion**

To conclude, the present study pioneered the development and validation of an existential mindfulness program for Hong Kong teachers (EMPT). Quantitative results provided partial evidence to show that EMPT could lead to increased mindfulness and well-being and reduced ill-being for the participants, especially among the university group. Qualitative results indicated that the participants developed numerous personal insights as a result of the EMPT. This shows the value of integrating both existential and practical mindfulness components in the EMPT program. The study's unique theoretical contribution lies in the integration of the existential perspective to mindfulness interventions which enriches existing literature which have mostly focused on the practical but not the existential aspect of mindfulness. Moreover, past work on mindfulness have mostly focused on clinical populations and this study shows its relevance to teachers. In terms of practice, the EMPT seems to hold promise as a cost-effective and sustainable intervention for teachers. Perhaps,



training teachers in mindfulness and helping them generate existential insights can facilitate their well-being and reduce ill-being in the midst of a challenging profession.

## Reference

- Agteren, J. V., Iasiello, M., Lo, L., Bartholomaeus, Z. K., Carey, M., & Kyrios, M. (2021). A systematic review and meta-analysis of psychological interventions to improve mental wellbeing. *Nature Human Behaviour*, 5(5), 631-653. doi: 10.1038/s41562-021-01093-w
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5<sup>th</sup> ed.) Arlington, VA: American Psychiatric Association.  
<https://www.riverdell.org/cms/lib05/NJ01001380/Centricity/Domain/111/DSM5%20Student%20Abridged%20Version.pdf>
- Andrews-Hanna, J., Kaiser, R. H., Turner, A. E., Reineberg, A. E., Godinez, D., Dimidjian, S., & Banich, M. T. (2013). A penny for your thoughts: dimensions of self-generated thought content and relationships with individual differences in emotional well-being. *Frontiers in Psychology*, 4, 900-913.
- Ardelt, M., & Carladenise, A. E. (2016). Wisdom at the end of life: an analysis of mediating and moderating relations between wisdom and subjective well-being. *Journals of Gerontology: Social Sciences*, 71(3), 502-513. doi: 10.1093/geronb/gbv051
- Beers, J., Jennings, P. A., Roeser, R. W., & Skinner, E. (2012). Mindfulness training and teachers' professional development: an emerging area of research and practice. *Child Development Perspective*, 6(2), 167-173. doi: 10.1111/j.1750-8606.2012.00238x
- Brandmeyer, T., Delorme, A., & Wahbeh, H. D. (2019) The neuroscience of meditation: classification, phenomenology, correlates and mechanisms. N. Srinivasan (Ed.), *Progress in Brain Research: Meditation* (1-29). US: Academic Press. doi: 10.1016/bs.pbr.2018.10.020

- Bauer, J. J., & McAdams, D. P. (2020). Eudaimonic growth: narrative growth goals predict increases in ego development and subjective well-being 3 years later. *Developmental Psychology*, 46(4), 761-772. Doi: 10.1037/a0019654
- Bernard, H. R. (2000). Social research methods: Qualitative and quantitative approaches. Thousand Oaks, CA: Sage.
- Blackie, L. E., Cozzolino, P. J., & Sedikides, C. (2016). Specific and Individuated Death Reflection Fosters Identity Integration, *PloSOne*, 11(5), e0154873-e0154890. doi: 10.1371/journal.pone.0154873.
- Bodhi, B. (2011). What does mindfulness really mean? *Contemporary Buddhism*, 12(1), 19-39. doi: 10.1080/14639947.2011.564813.
- Burke, B. L., Martens, A., & Faucher, E. H. (2010). Two decades of terror management theory: a meta-analysis of mortality salience research. *Personality and Social Psychology Review*, 14(2), 155-195.
- Cangas, A. J., Franco, C., Manas, I., & Moreno, E. (2010). Reducing teachers' psychological stress through a mindfulness training program. *The Spanish Journal of Psychology* 13(2), 566-666. doi: 10.1037/a0032093
- Carmody, J., Reed, G., Kristeller, J., & Merriam, P. (2008). Mindfulness, spirituality, and health-related symptoms. *Journal of Psychosomatic Research*, 64, 393-403. doi:10.1016/j.jpsychores.2007.06.015
- Cavers, D., Hacking, B., Erridge, S. E., Kendall, M., Morris, P. G., & Murray, S. A. (2012). Social, psychological and existential well-being in patients with glioma and their caregivers: a qualitative study. *Canadian Medical Association Journal*, 184(7), E373-E382.
- Cebolla, A., Galiana, L., Campos, D., Oliver, A., Soler, J., Demarzo, M., Banos, R. M., Feliu-Soler, A., & Garcia-Campayo, J. (2018). How does mindfulness work? Exploring a

- theoretical model using samples of meditators and non-meditators. *Mindfulness*, 9, 860-870.
- Chang, J. H., Huang, C. L., & Lin, Y. C. (2015). Mindfulness, basic psychological needs fulfillment and well-being. *Journal of Happiness Studies*, 16(5), 1149-1162. Doi: 10.1007/s10902-014-95512
- Chapman, A. L. (2006). Dialectical behavior therapy: Current indications and unique elements. *Psychiatry (Edgmont)*, 3(9), 62.
- Cheng, Y. C. (2015). Globalization and Hong Kong educational reforms. In *Second International Handbook on Globalisation, Education and Policy Research* (pp. 219-241). Springer Netherlands. doi: 10.1007/978-94-017-9493-0\
- Chiesa, A., & Serretti, A. (2010). A systematic review of neurobiological and clinical features of mindfulness meditations. *Psychological Medicine*, 40(8), 1239-1252. doi: 10.1017/S0033291709991747
- Chiesa, A. & Malinowski, P. (2011). Mindfulness-based approaches: are they all the same? *Journal of Clinical Psychology*, 67(4), 404-424.
- Church, A. T., Katigbak, M. S., & Locke, K. D., Zhang, H., Shen, J., Vargas-Flores, J...& Ching, C. M. (2012). Need satisfaction and well-being: testing self-determination theory in eight cultures. *Journal of Cross-Cultural Psychology*, 44(4), 507-534. Doi: 10.1177/0022022112466590
- Claessens, M. (2010). Mindfulness based-third wave CBT therapies and existential-phenomenology: Friends or foes? *Existential Analysis*, 21, 295–308.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. N.Y.: Routledge Academic. doi: <https://doi.org/10.4324/9780203771587>
- Corbett, L., Phongsavan, P., Peralta, L. R., & Bauman, A. (2021). Understanding the characteristics of professional development programs for teachers' health and wellbeing:

Implications for research and practice. *Australian Journal of Education*, 0(0), 1-14. doi:

10.1177/00049441211003429

Corrie, S., & Milton, M. (2000). The relationship between existential- phenomenological and cognitive-behavior therapies. *European Journal of Psychotherapy, Counselling, & Health*, 3, 7–24. doi:10.1080/13642530050078538

Cozzolino, P. J., & Blackie L.E. (2013) I Die, Therefore I Am: The Pursuit of Meaning in the Light of Death. In: Hicks J., Routledge C. (eds) *The Experience of Meaning in Life*. Springer, Dordrecht. [https://doi.org/10.1007/978-94-007-6527-6\\_3](https://doi.org/10.1007/978-94-007-6527-6_3)

Cozzolino, P. J., Blackie, L. E., & Meyers, L. S. (2014) Self-Related Consequences of Death Fear and Death Denial, *Death Studies*, 38(6), 418-422, doi: 10.1080/07481187.2013.780110

Cullen, M. (2011). Mindfulness-based intervention: an emerging phenomenon. *Mindfulness*, 2(3), 186-193. doi: 10.1007/s12671-011-0058-1

Cullen, M., & Wallace, L. (2010). *Stress management and relaxation techniques in education (SMART) training manual*. Unpublished manuscript, Impact Foundation, Aurora, Colorado.

Cumming, G. (2012). *Understanding the New Statistics: Effect sizes, Confidence Intervals, and Meta-Analysis*. New York, NY: Routledge.

Dahl, C. J., & Davidson, R. J., (2019). Mindfulness and contemplative life: pathways to connection, insight and purpose. *Current Opinion in Psychology*, 28, 60-64. doi: 10.1016/j.copsyc.2018.11.007

Deci, E. L., & Ryan, R. M. (2006). Hedonia, eudaimonia and well-being: an introduction. *Journal of Happiness Studies*, 9(1), 1-11.

Deci, E. L., & Ryan, R. M. (2012). *Self-determination theory*. In P. A. M. Van Lange, A. W.

Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (p.

416–436). Sage Publications Ltd. <https://doi.org/10.4135/9781446249215.n21>

De Vibe, M., Bjorndal, A., Fattah, S., Dyrdal, G.M., & Tanner-Smith, E.E. (2017).

Mindfulness-based stress reduction (MBSR) for improving health, quality of life and social functioning in adults: a systematic review and meta-analysis. *Campbell*

*Systematic Reviews*, 13(1), 1-264.

Dorjee, D. (2016). Defining contemplative science: the metacognitive self-regulatory

capacity of the mind, context of meditation practice and modes of existential

awareness. *Frontiers In Psychology*, 7(1788), 1-15.

Dreyfus, G. (2011). Is mindfulness present-centered and non-judgmental? A discussion of the

cognitive dimensions of mindfulness. *Contemporary Buddhism*, 12(1), 41-54. doi:

10.1080/14639947.2011.564815.

Emerson, L., Leyland, A., Hudson, K., Rowse, G., Hanley, P., \* Hugh-Jones, S. (2017).

Teaching mindfulness to teachers: A systematic review and narrative synthesis.

*Mindfulness*, 8, 1136-1149. doi: 10.1007/s12671-017-0691-4

Finch, E. C., Iverach, L., Menzies, G. G., & Jones, M. (2016). Terror mismanagement:

evidence that mortality salience exacerbates attentional bias in social anxiety.

*Cognition and Emotion*, 30(7), 1370-1379.

Frias, A., Watkins, P. C., Webber, A. C. & Froh, J. J. (2011). Death and gratitude: Death

reflection enhances gratitude. *The Journal of Positive Psychology*, 6(2), 154-

162. doi: 10.1080/17439760.2011.558848

Garrison, K. A., Zeffiro, T. A., Scheinost, D., Constable, R. T., & Brewer, J. A. (2015).

Meditation leads to reduced default mode network activity beyond an active task.

*Cognitive, Affective and Behavioral Neuroscience*, 15(3), 712-720.

- Gethin, R. (2011). On some definitions of mindfulness. *Contemporary Buddhism*, 12 (1), 263-279. doi: 10.1080/14639947.2011.564843
- Gordon, W. V., Shonin, E., Griffiths, M. D., & Singh, N. N. (2015). There is only one mindfulness: why science and Buddhism need to work together. *Mindfulness*, 6, 49-56.
- Guerrero-Torrelles, M., Monforte-Royo, C., Rodriguez-Prat, S., Porta-Sales, J., & Balaguer, A. (2017). Understanding meaning in life interventions in patients with advanced disease: a systematic review and realist synthesis. *Palliative Medicine*, 31(9), 798-813. doi: 10.1177/0269216316685235.
- Gu, J., Strauss, C., Bond, R., & Cavanagh, K. (2015). How do mindfulness-based cognitive therapy and mindfulness-based stress reduction improve mental health and well-being? A systematic review and meta-analysis of mediation studies. *Clinical Psychology Review*, 37, 1-12.
- Flook, L., Goldberg, S. B., Pinger, L., Bonus, K., & Davidson, R. J. (2013). Mindfulness for teachers: a pilot study to assess effects on stress, burnout, and teaching efficacy. *Mind, Brain and Education*, 7(3), 182-195. Doi: 10.1111/mbe.12026
- Harrington, R., & Loffredo, D. A. (2010). Insight, rumination and self-reflection as predictors of well-being. *The Journal of Psychology*, 145(1), 39-57. doi: 10.1080/00223980.2010.528072
- Harris, W. (2013). Mindfulness-based existential therapy: connecting mindfulness and existential therapy. *Journal of Creativity in Mental Health*, 8, 349-362. doi: 10.101080/15401383.844655.
- Hayes, J., Schimel, J., Arndt, J., & Faucher, E. H. (2010). A theoretical and empirical review of the death- thought accessibility concept in terror management research. *Psychological Bulletin*, 136, 699–739. doi:10.1037/a0020524

- Henderson, L. W., & Knight, T. (2012). Integrating the hedonic and eudaimonic perspectives to more comprehensively understand well-being and pathways to well-being. *International Journal of Well-being*, 2(3), 196-221. Doi: 10.5502/ijw.v2i3.3
- Holzel, B. K., Lazar, S. W., Gard, T., Schuman-Oliver, Z., Vago, D. R., & On, U. (2011). How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective. *Perspective on Psychological Science*, 6(6), 537-559.
- Hwang, Y., Bartlett, B., Greben M., & Hand, K. (2017). A systematic review of mindfulness interventions for in-service teachers: a tool to enhance teacher well-being and performance. *Teaching and Teacher Education*, 64, 26-42. doi: 10.1016/j.tate.2017.01.015
- Jennings, P. A. (2011). Promoting teachers' social and emotional competencies to support performance and reduce burnout. In A. Cohan & A. Honigsfeld (Ed.) *Breaking the mold of preservice and inservice teacher education: Innovative and successful practices for the twenty-first century* (pp. 105-112). United Kingdom, Plymouth: Rowan & Littlefield Education.
- Jennings, P. A., Brown, J. L., Frank, J. L., Doyle, S., Davis, R., Rasheed, D., DeWeese, A., DeMauro, A. A., Cham, H., & Greenberg, M. T. (2017). Impacts of the CARE for Teachers program on teachers' social and emotional competence and classroom interactions. *Journal of Educational Psychology*. Advance online publication.
- Jennings, P. A., Frank, J. L., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2013). Improving classroom learning environments by cultivating awareness and resilience in education (CARE): results of a randomized controlled trial. *School Psychology Quarterly*, 28, 374-390.



- Kabat-Zinn, J. (1994). *Wherever you go there you are: Mindfulness meditation in everyday life*. NY: Hyperion.
- Kabat-Zinn, J. (2009). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain and illness*. NY: Delta Trade Paperback.
- Keng, S. L., Smoski, M. J., & Robins, C. J. (2011). Effects of mindfulness on psychological health: A review of empirical studies. *Clinical Psychology Review, 31*(6), 1041-1056. doi: 10.1016/j.cpr.2011.04.006
- Keyes, C. L. (2002). The mental health continuum: from languishing to flourishing in life. *Journal of Health and Social Research, 43*(2), 207-222. doi: 10.2307/3090197
- Keyes, C. L., Simoes, E. J. (2012). To flourish or not: positive mental health and all-cause mortality. *American Journal of Public Health, 102*(11), 2164-2172. doi: 10.2105/ajph.2012.300918
- Khoury, B., Lecomte, T., Fortin, G., Masse, M., Therien, P., Bouchard, V., Chapleau, M., Paquin, K., & Hofmann, S. G. (2013). Mindfulness-based therapy: a comprehensive meta-analysis. *Clinical Psychology Review, 33*, 763-771. doi: 10.1016/j.cpr.2013.05.005
- Kidger, J., Brockman, R., Tilling, K., Campbell, R., Ford, T., Araya, R., King, M., & Gunnell, D. (2015). Teachers' well-being and depressive symptoms and associated risk factors: a large cross sectional study in English secondary schools. *Journal of Affective Disorders, 192*, 75-82. doi: 10.1016/j.jad.2015.11.054
- Kiken, L. G., & Shook, N. J. (2011). Looking up: Mindfulness increases positive judgements and reduces negativity bias. *Social Psychological and Personality Science, 2*(4), 425-431.

- Klingbeil, D. A., & Renshaw, T. L. (2018). Mindfulness-based interventions for teachers: A meta-analysis of the emerging evidence base. *School Psychology Quarterly*, 33(4), 501-511. doi: 10.1037/spq0000291
- Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, 102, 741-756. doi:10.1016/j.cpr.2011.04.006
- Koole, S. L., Greenberg, J., & Pyszczynski, T. (2006). Introducing science to the psychology of the soul: experimental existential psychology. *Current Directions in Psychological Science: A Journal of the American Psychological Society*, 15(5), 213-216. doi: 10.1111/j.1467-8721.2006.00438.x.
- Krille, C. (2020). Teachers' Participation in Professional Development: A Systematic Review. SpringerLink: <https://link-springer-com.ezproxy.eduhk.hk/book/10.1007%2F978-3-030-38844-7>
- Krueger, R. A. & Casey, M. A. (2015). (5th edition) *Focus groups: A practical guide for applied research*. Thousand Oaks, CA: Sage.
- Lakens, D. (2013). Calculating and reporting effect sizes to facilitate cumulative science: a practical primer for t-tests and ANOVAs. *Frontiers in Psychology*, 4, 1-12. doi: 10.3389/fpsyg.2013.00863
- Larson, M., Cook, C. R., Fiat, A., & Lyon, A. R. (2018). Stressed teachers don't make good implementers: examining the interplay between stress reduction and intervention fidelity. *School Mental Health*, 10(1), 61-76. doi: 10.1007/s12310-018-9250-y
- Lecompte, M. D., & Schensul, J. J. (1999). Analyzing and interpreting ethnographic data. Walnut Cree, CA: AltaMira Press
- Lind, A. B., Delmar, C., & Nielsen, K. (2014). Searching for existential security: a prospective qualitative study on the influence of mindfulness therapy on experienced

- stress and coping strategies among patients with somatoform disorders. *Journal of Psychosomatic Research*, 77(6), 516-521. doi: 10.1016/j.psychores.2014.07.015
- Lipsey, M. W. & Cordray, D. S. (2000). Evaluation methods of social intervention. *Annual Review of Psychology*, 51(1), 345-375. doi: 10.1146/annurev.psych.51.1.345
- Lomas, T., Medina, J. C., Ivztan, I., Rupprecht, S. & Eiroa-Orosa, F., J. (2019). Mindfulness-based interventions in the workplace: an inclusive systematic review and meta-analysis of their impact upon wellbeing. *The Journal of Positive Psychology*. 14(5), 625-640. Doi: 10.1080/17439760.2018.1519588
- Marko, T. & Petra, A. (2015). Everyday activities: beneficial effects of eudaimonic and hedonic motivation on subjective well-being. *Current Psychology*, 34(4), 644-653.
- Martens, A., Burke, B. L., Schimel, J. & Faucher, E. H. (2011). Same but different: meta-analytically examining the uniqueness of mortality salience effects. *European Journal of Social Psychology*, 41(1), 6-10.
- Marx, R. (2014). Accessibility versus integrity in secular mindfulness: A Buddhist commentary. *Mindfulness*, 6(5), 1153-1160.
- Maxwell, Joseph A. (2013). (Third edition) *Qualitative research design: An interactive approach*. Thousand Oaks, CA: Sage.
- McCarthy, C. J., Lambert, R. G., Crowe, E. W., & McCarthy, C. J. (2011). Coping, stress and job satisfaction as predictors of advanced placement statistics teachers' intention to leave the field. *NASSP Bulletin*, 94(4), 306-326. doi: 10.1177/0192636511403262
- McCormick, J. and Barnett, K. (2011), Teachers' attributions for stress and their relationships with burnout", *International Journal of Educational Management*, 25(3), 278-293. doi: 10.1108/09513541111120114
- Meiklejohn, J., Phillips, C., Freedman, M. L., Griffin, M. L., Biegel, G., Roach, A., Frank, J., Burke, C., Pinger, L., Soloway, G., Isberg, R., Sibinga, E., Grossman, L., & Saltzman,

- A. (2012). Integrating mindfulness training into K-12 education: Fostering the resilience of teachers and students. *Mindfulness*, 3, 291-307.
- Monteiro, L. M., Musten, R. F., & Compson, J. (2015). Traditional and contemporary mindfulness: finding the middle path in tangle of concerns. *Mindfulness*, 6, 1-13.
- Nanda, J. (2010). Embodied integration: reflections on mindfulness based cognitive therapy (MBCT) and a case for mindfulness based existential therapy (MBET). A single case illustration. *Existential Analysis*, 21(2), 331-350.
- Nanda, J. (2009). Mindfulness: A lived experience of existential- phenomenological themes. *Existential Analysis*, 20(1), 147-162.
- Newberg, A. B., Wintering, N., Waldman, M. R., Amen, D., Khalsa, D. S., & Alavi, A. (2010). Cerebral blood flow differences between long-term meditators and non-meditators. *Consciousness and Cognition*, 19(4), 899-905. doi: 10.1016/j.concog.2010.05.003
- Niemiec, C. P., Brown, K. W., Kashdan, T. B., Cozzolino, P. J., Breen, W. E., & Levesque-Bristol, C. (2010). Being present in the face of existential threat: The role of trait mindfulness in reducing defensive responses to mortality salience. *Journal of Personality and Social Psychology*, 99(2), 344-365.
- Norris, C. J. (2019). The negativity bias, revisited: evidence from neuroscience measures and an individual differences approach. *Social Neuroscience*, 12, 1-15.
- Owensworth, T., & Nash, K. (2015). Existential well-being and meaning making in the context of primary brain tumor: conceptualization and implication for intervention. *Journal Frontiers in Oncology*, 5(96), 1-6.
- Parto, M., & Besharat, M. A. (2011). Mindfulness, psychological well-being and psychological distress in adolescents: assessing the mediating variables and

- mechanisms of autonomy and self-regulation. *Procedia, Social and Behavioral Science*, 30, 578-582. Doi: 10.1016/j.sbspro.2011.10.112
- Poulin, P. A., Mackenzie, C. S., Soloway, G. B., & Karayolas, E. (2008). Mindfulness training as an evidence-based approach to reducing stress and promoting well-being among human services professionals. *International Journal of Health Promotion & Education*, 46, 35-43.
- Purser R. E. & Milillo, J. (2015). Mindfulness revisited: a Buddhist-based conceptualization. *Journal of Management Inquiry* 24(1), 3-24. doi: 10.1177/1056492614532315
- Pyszczynski, T., Sullivan, D., Greenberg, J. (2015). *Attitudes and social cognition*. In M. Mikulincer, P. R., Shaver, E., Borgida & J. A., Bargh (Eds.), APA handbook of personality and social psychology, Volume 1 (p. 279-308). American Psychological Association.
- Pyszczynski, T., Greenberg, J., Koole, S., & Solomon, S. (2010). *Experimental existential psychology: Coping with the facts of life*. In S. T. Fiske, D. T. Gilbert, & G. Lindzey (Eds.), *Handbook of social psychology* (p. 724–757). John Wiley & Sons Inc.
- Ragoonaden, K. (2017). smartEducation: Developing stress management and resiliency techniques. *LEARNing Landscapes*, 10(2), 241-255.
- Raichle, M. E., MacLeod, A. M., Snyder, A. Z., Powers, W. J., Gusnard, D. A., & Shulman, G. L. (2001). A default mode of brain function. *Proceedings of the National Academy of Sciences*, 98(2), 676-682.
- Rhys Davids, T. W. (1881). *Buddhist Suttras*. England: Clarendon Press
- Roeser, R. W., Schonert-Reichl, K. A., Jha, A., Cullen, M., Wallace, L., Wilensky, R., Oberle, E., Thomson, K., Taylor, C., & Harrison, J. (2013). Mindfulness training and reductions in teacher stress and burnout: results from two randomized, waitlist-control

- field trials. *Journal of Educational Psychology*, 105(3), 787–804. doi: 10.1037/a0032093
- Rosenkranz, M. A., Dunne, J. A., & Davidson, R., J. (2019). The next generation of mindfulness-based intervention research: what have we learned and where we are headed? *Current Opinion in Psychology*, 28, 179-183. doi: 10.1016/j.copsyc.2018.12.022
- Ryff, C. D. (2012). Existential well-being and health. In P. T. P. Wong (Ed.), *The human quest for meaning: Theories, research and applications* (p. 233–247).
- Ryff, C. D. (2014). Psychological well-being revisited: advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics*, 83(1), 10-28. doi: 10.1159/000353263
- Salkind, Neil, J. (2010). Encyclopedia of research design. Thousand Oaks, CA: Sage.
- Segal, Z. J., Williams, M. G., & Teasdale, J. D. (2002). Mindfulness-based cognitive therapy for depression: a new approach to preventing relapses. NY: Guildford Press.
- Shrimpton, D., McGann, D., Riby, L. M. (2017). Daydream believer: rumination, self-reflection and the temporal focus of mind wandering content. *Europe's Journal of Psychology*, 13(4), 794-809. doi: 10.5964/ejop.v13i4.1425
- Soloway, G. B., Poulin, A. P., & Mackenzie, C. S. (2011). Preparing new teachers for the full catastrophe of the twenty-first-century classroom: Integrating mindfulness training into initial education. In A. Cohan & A. Honigsfeld (Ed.) *Breaking the mold of preservice and inservice teacher education: Innovative and successful practices for the twenty-first century* (pp. 163-168). United Kingdom, Plymouth: Rowan & Littlefield Education.
- Sun, J. (2014). Mindfulness in context: A historical discourse analysis. *Contemporary Buddhism*, 15(2), 394-415.

- Tang, Y, Holzel, B. K., & Posner, M. I. (2015). The neuroscience of mindfulness meditation. *Nature Reviews: Neuroscience*, 16(4), 213-225. doi: 10.1038/nrn3916
- Tao, Y., Liu, G., Zhang, X., Li, J., Qin, W., Yu, C., & Jiang, T. (2015). The structural connectivity pattern of the default mode network and its association with memory and anxiety. *Frontiers in Neuroanatomy*, 9, 152.
- Tarrasch, R., Berger, R., & Grossman, D. (2020) Mindfulness and compassion as key factors in improving teacher's well Being, *Mindfulness*, 11(4), 1049-1061. doi: 10.1007/s12671-020-01304-x
- Titheradge, D., Hayes, R., Longdon, B., Allen, K., Price, A., Hansford, L, Nye, E., Ukoumunne, O. C., Byford, S., Norwich, B., Fletcher, M., Logan, S., & Ford, T. (2019). Psychological distress among primary school teachers: a comparison with clinical and population samples. *Public Health*, 166, 53-56. doi:10.1016/j.puhe.2018.09.022
- Vail III, K. E., Juhl, J., Arndt, J., Vess, M., Routledge, C., & Rutjens, B. T. (2012). When death is good for life: considering the positive trajectories of terror management. *Personality and Social Psychology Review*, 16(4), 303-329. doi: 10.1177/1088868312440046.
- Van Gordon, W., Shonin, E., Diouri, S., Garcia-Campayo, J., Kotera, Y. & Griffiths, M. D. (2018). Ontological addiction theory: attachment to me, mine and I. *Journal of Behavioral Addictions*, 7(4), 892-896. doi: 10.1556/2006.7.2018.45
- Vilardaga, R., Hayes, S. C., & Schelin, L. (2007). Philosophical, theoretical and empirical foundations of Acceptance and Commitment Therapy. *The UB Journal of Psychology*, 38(1), 117-128.
- Vos, J., Cooper, M., Correia, E., & Craig, M. (2015). Existential therapies: a review of their scientific foundations and efficacy. *Existential Analysis*, 26(1), 49-69.

- Wheeler, M. S., Arnkoff, D. B., & Glass, C. R. (2017). The neuroscience of mindfulness: how mindfulness alters the brain and facilitates emotion regulation. *Mindfulness*, 8(6), 1471-1487. doi: 10.1007/s12671-017-0742-x
- Whitehead, R., Bates, G., Elphinstone, B., Yang, Y. & Murray, G. (2019). Nonattachment mediates the relationship between mindfulness and psychological well-being, subjective well-being and depression, anxiety and stress. *Journal of Happiness Studies*, 20, 2141-215.
- Wilson VanVoorhis, C., R., & Morgan, B., L. (2007). Understanding power and rules of thumb for determining sample sizes. *Tutorials in Quantitative Methods for Psychology*, (2), 43-50. doi: 10.20982/tqmp.03.2.p043
- Wolcott, H. F. (1994). *Transforming qualitative data: Description, analysis and interpretation*. Thousand Oaks, CA: Sage
- Wong, A. K., Tang, S. Y., & Cheng, M. M. (2014). Teaching motivations in Hong Kong: Who will choose teaching as a fallback career in a stringent job market? *Teaching and Teacher Education*, 41, 81-91. doi: 10.1016/j.tate.2014.03.009
- World Health Organization. (2013). Who urges more investments, services for mental health. Retrieved from [https://www.who.int/mental\\_health/who\\_urges\\_investment/en/](https://www.who.int/mental_health/who_urges_investment/en/)



### Appendix A: FFMQ inventory

Please rate each of the following statements using the scale provided. Choose the number that best describes your own opinion of what is generally true for you.

請根據以下給予的等級來評定每句話。請選擇最符合您真實想法的等級數字。

1	2	3	4	5
never or very rarely true 一點也不符合	rarely true 較少符合	sometimes true 有些同意	often true 非常符合	very often or always true 完全符合

\_\_\_\_\_ 1. When I'm walking, I deliberately notice the sensations of my body moving.

在行走時，我會特意關注身體部位在步行中的感覺。

\_\_\_\_\_ 2. I'm good at finding words to describe my feelings.

我擅長於用言語描述我的情感。

\_\_\_\_\_ 3. I criticize myself for having irrational or inappropriate emotions.

我為自己有不理智的情緒或不合適的情緒而責備自己。

\_\_\_\_\_ 4. I perceive my feelings and emotions without having to react to them.

我意識到自己的情緒和情感，但我不必對它們做出反應。

\_\_\_\_\_ 5. When I do things, my mind wanders off and I'm easily distracted.

在做事的時候，我經常走神，而且很容易被幹擾。

\_\_\_\_\_ 6. When I take a shower or bath, I stay alert to the sensations of water on my body.

在洗澡時，我會留心於水淌過身體的感覺。

\_\_\_\_\_ 7. I can easily put my beliefs, opinions, and expectations into words.

我能用語言清晰地表達自己的信念、觀點以及期望。

\_\_\_\_\_ 8. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.

我沒有特別留意自己在做什麼事情，這是因為我在發白日夢，在擔憂或分心於外界。

\_\_\_\_\_ 9. I watch my feelings without getting lost in them.

我能觀察自己的情緒，而不迷失其中。

\_\_\_\_\_ 10. I tell myself I shouldn't be feeling the way I'm feeling.

我告訴自己，我不應該有我現在這樣的感受。

\_\_\_\_\_ 11. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.

我留意到食物和飲料是如何影響著我的思維、身體的感覺和情緒的。

\_\_\_\_\_ 12. It's hard for me to find the words to describe what I'm thinking.

我難以找到詞語來表達我的所思所想。

\_\_\_\_\_ 13. I am easily distracted.

我很容易分心。

\_\_\_\_\_ 14. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.

我認為我的一些想法是異常的、不好的；我不應該那樣想。

\_\_\_\_\_ 15. I pay attention to sensations, such as the wind in my hair or sun on my face.

我會注意我的一些身體感覺，比如：微風吹拂我的頭髮、陽光照在我的臉上的感覺。

\_\_\_\_\_ 16. I have trouble thinking of the right words to express how I feel about things.

我很難用合適的言語來表達我對事物的感受。

\_\_\_\_\_ 17. I make judgments about whether my thoughts are good or bad.

我會評判自己的想法是好的或是壞的。

\_\_\_\_\_ 18. I find it difficult to stay focused on what's happening in the present.

我難以把注意力集中在當前發生的事情上。

\_\_\_\_\_ 19. When I have distressing thoughts or images, I “step back” and am aware of the thought or image without getting taken over by it.

當我有悲傷的想法或景象時，我會“退一步”，並去覺知那些想法或景象的存在，而不被其所控制。

\_\_\_\_\_ 20. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.

我會注意一些聲音，比如：時鐘的滴答聲、小鳥的唧喳聲、或者汽車穿梭的聲音。

\_\_\_\_\_ 21. In difficult situations, I can pause without immediately reacting.

在困難的情境下，我能暫停一下，不馬上做出反應。

\_\_\_\_\_ 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.

我很難找到合適的詞語來描述身體所感受到的種種知覺。

\_\_\_\_\_ 23. It seems I am “running on automatic” without much awareness of what I'm doing.

我好像是機械地在做一些事情，並沒有完全意識到進行的過程。

\_\_\_\_\_ 24. When I have distressing thoughts or images, I feel calm soon after.

通常，在生起不愉快的思想或意象後，我能很快恢復平靜。

\_\_\_\_\_ 25. I tell myself I shouldn't be thinking the way I'm thinking.

我告訴我自己，我不應該有我現在的這種想法。

\_\_\_\_\_ 26. I notice the smells and aromas of things.

我覺察到周圍一些東西的氣味或者芳香。

\_\_\_\_\_ 27. Even when I'm feeling terribly upset, I can find a way to put it into words.

即便是我感到非常地不安時，我也能找到詞語來表達它。

\_\_\_\_\_ 28. I rush through activities without being really attentive to them.

我每每趕忙地完成事情，而沒有真正地集中注意力在其上。

\_\_\_\_\_ 29. When I have distressing thoughts or images I am able just to notice them without reacting.

當陷入令人煩惱的情緒或情境中，我能做到只是去注意它們，而不做出相對反應。

\_\_\_\_\_ 30. I think some of my emotions are bad or inappropriate and I shouldn't feel them.

我想有些情緒是不對的或者是不合適宜的，我不應該有這些情感。

\_\_\_\_\_ 31. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.

我注意到了藝術品和自然界中事物的一些視覺元素，如：顏色、形狀、紋理還有光和影子。

\_\_\_\_\_ 32. My nature tendency is to put my experiences into words.

我總是傾向於用詞語來描述我的體驗。

\_\_\_\_\_ 33. When I have distressing thoughts or images, I just notice them and let them go.

當我有令人痛苦的想法或景象時，我通常只是去在注意它們，順其自然。

\_\_\_\_\_ 34. I do jobs or tasks automatically without being aware of what I'm doing.

我總是機械地工作或完成某項任務，而沒有意識到我在做什麼。

\_\_\_\_\_ 35. When I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.

當我有些令人困擾的想法或者景象時，我會根據這些來批判自己是好是壞。

\_\_\_\_\_ 36. I pay attention to how my emotions affect my thoughts and behavior.

我會去注意，我的情緒是如何影響我的想法和行為的。

\_\_\_\_\_ 37. I can usually describe how I feel at the moment in considerable detail.

我通常能夠非常詳細地描述出我此刻的感覺。

\_\_\_\_\_ 38. I find myself doing things without paying attention.

我發現自己做事情的時候，不專注在所做的事情上。

\_\_\_\_\_ 39. I disapprove of myself when I have irrational ideas.

當不理智的想法出現時，我會自我否定。

**Appendix B: MHC-SF**

Encircle the number that corresponds to you answer. How often did you feel these things during the PAST MONTH?

請對自己做一個自我評價，並且選出適合你的選項。你在過去一個月有幾經常地感到以下情況？

0	1	2	3	4	5
never 從不	Once or twice 一次或 兩次	About once a week 一週一次	Two or three times a week 一周兩至三 次	Almost every day 幾乎每天	Everyday 每天

- How often did you feel happy?  
你感到開心？
- How often did you feel interested in life?  
你對生活感興趣？
- How often did you feel satisfied?  
你感到滿足？
- How often did you feel that you liked most parts of your personality?  
你欣賞自己大部分的性格？
- How often did you feel good at managing the responsibilities of your daily life?  
你感到自己善於處理日常生活的種種？
- How often did you feel that you have warm and trusting relationship with other kids?  
你感到與孩童們擁有溫暖信任的關係？
- How often did you feel that you had experiences that challenged you to grow or become a better person?  
你感到有一些經歷阻礙了你成長或障礙你成為更好的人？
- How often did you feel confident to think or express your own ideas and opinions?  
你對自己的意見及想法有信心並能勇於表達？
- How often did you feel that your life has a sense of direction or meaning to it?  
你感到你的生活有方向感或者有意義？
- How often did you feel that you had something important to contribute to society?  
你感到自己擁有一些有價值的東西可以為社會做貢獻？
- How often did you feel that you belonged to a community like a social group, your school, or your neighborhood?  
你是否經常感到自己歸屬於一個社群：比如社會組織，你的學校或者你的鄰居群體？
- How often did you feel that our society is becoming a better place?  
你感到我們這個社會正在變得更好？
- How often did you feel that people are basically good?  
你感到人們的本質都是好的？
- How often did you feel that the way our society works made sense to you?  
你感到這個社會的運作方式是可以理解的、合理的？

## Appendix C: MBI.

In each question, indicate the scale that corresponds to your condition.

請根據你的個人情況來給予相應的等級。

0	1	2	3	4	5	6
never 從不	a few times a year or less 一年有幾次或者更少	once a month or less 一個月一次或者更少	a few times a month 一個月有幾次	once a week 一週一次	a few times a week 一周幾次	every day 每天

1. I feel emotionally drained from my work.  
工作耗盡了我的精神和情感。
2. I feel used up at the end of the workday.  
工作一天下來讓我感到筋疲力盡。
3. I feel fatigued when I get up in the morning and have to face another day on the job.  
一大早起來，想到又要面對一天的工作，使我感到疲倦。
4. I can easily understand how my students feel about things.  
我可以很容易瞭解我學生的感受。
5. I feel I treat some students as if they were impersonal objects.  
我會把某些學生當成與我個人無關的陌路人看待。
6. Working with people all day is really a strain on me.  
在工作中整天和人來往，使我感到精神繃緊。
7. I deal very effectively with the problems of my students.  
我可以很有效地處理學生的問題。
8. I feel burned out from my work.  
工作使我身心俱疲。
9. I feel I'm positively influencing other people's lives through my work.  
我覺得我的工作可以對他人的生活有積極的影響。
10. I've become more callous toward people since I took this job.  
從事這個工作以來，我對待工作有關的人愈來愈麻木。
11. I worry that this job is hardening me emotionally.  
我擔心這個工作會使我變得愈來愈冷漠。

12. I feel very energetic.  
我感到精力充沛。
13. I feel frustrated by my job.  
工作使我感到受挫。
14. I feel I'm working too hard on my job.  
我覺得我對工作太賣力了。
15. I don't really care what happens to some students.  
我對某些學生，生不起真誠的關心。
16. Working with people directly puts too much stress on me.  
與人共事，帶給我很大的壓力。
17. I can easily create a relaxed atmosphere with my students.  
跟學生在一起的時候，我很容易營造一個輕鬆的氣氛。
18. I feel exhilarated after working closely with my student.  
每當和學生密切合作後，我都感到興奮和愉快。
19. I have accomplished many worthwhile things in this job.  
我在這個工作當中，成就了許多有意義的事。
20. I feel like I'm at the end of my rope.  
我感到疲倦，沮喪。
21. In my work, I deal with emotional problems very calmly.  
在我的工作中，我能夠很冷靜地處理各種情緒問題。
22. I feel students blame me for some of their problems.  
我覺得學生將他們所遭遇的一些問題怪罪於我。

## Appendix D: PANAS-SF.

Indicate the extent you have felt this way over the past week.

在過去一周，你是否有如下感受？選出適合你對各項的感受。

1	2	3	4	5
very slightly or not at all 非常輕微或 者完全沒有	a little 輕度	moderately 中度	quite a bit 頗多	extremely 極度

1. Interested 有興趣的
2. Distressed 痛苦的
3. Excited 興奮的
4. Upset 沮喪的
5. Strong 堅強的
6. Guilty 自責的
7. Scared 害怕的
8. Hostile 有敵意的
9. Enthusiastic 有熱情的
10. Proud 驕傲的
11. Irritable 急躁的
12. Alert 警醒的
13. Ashamed 慚愧的
14. Inspired 受鼓舞的
15. Nervous 緊張的
16. Determined 堅決的
17. Attentive 留意的
18. Jittery 戰戰兢兢的
19. Active 主動的
20. Afraid 擔心的

**Appendix E: PHQ-4**

Over the past 2 weeks, have you been bothered by these problems?

在過去兩個星期，有多少時候您被以下各項情況所困擾？

0	1	2	3
not at all 完全沒有	several days 幾天	More days than not 一半以上的日子	nearly every day 幾乎每天

1. Feeling nervous, anxious or on edge.  
感到緊張，焦慮或者煩躁不安。
2. Not being able to stop or control worrying  
不能停止或者控制焦慮。
3. Feeling down, depressed, or hopeless  
感到心情低落，沮喪或絕望。
4. Little interest or pleasure in doing things.  
做事時提不起勁或沒有樂趣。



**Appendix F: Invitation letter for EMPT**

Dear All,

You are cordially invited to participate in a mindfulness-Well-being program free of charge. This program is specifically designed for Hong Kong teachers, both pre-service and in-service teachers who have had practice experience. It is under a research study titled “Preventing Hong Kong Teachers’ Burnout by Mindfulness Intervention: A Mix Method Study”.

The purpose of this program is to increase teachers’ awareness of the inner science towards happiness, equip them with mindfulness skills for well-being, relaxation and positive mental states.

This program will be conducted in Cantonese without any religious connotation. It consists of eight sessions with one session per week. Each session consists of two parts: Part 1: well-being games and activities; Part 2: guided mindfulness meditation.

Participants are required to complete some on-line inventories at various points of the program; as well, at the final session of the program, participants are invited to share their opinions about the program as an evaluation. All information gathered will be treated as confidential and participants’ personal information will be kept anonymous.

Online registration is now open at: <https://goo.gl/forms/NQhvSQVpiZpRRDmX2>

For queries, please do not hesitate to contact us via email

[mindfulness.wbeing@gmail.com](mailto:mindfulness.wbeing@gmail.com) or via telephone call to Ms. Ann Ly This

research is conducted by Miss Ann Ly, EDD student and supervised by Dr. Ronnel King as Principal Supervisor and Dr. Susanna Yeung as Associate Supervisor.

Department of Psychology

The Education University of Hong Kong

### 歡迎參加正念心靈健康課程

誠摯邀請您免費參加正念心靈健康課程。本課程特意为香港已有實習經驗的職前老師以及在職老師而設計。此課程隸屬名為“通過正念心靈健康課程來預防香港教師的工作倦怠：混合研究”的科研項目。

課程的目的是：提升教師對於心靈健康的意識，讓其掌握正念冥想的技巧，以助老師們放鬆以及引發其內心的正能量。

這課程不含宗教元素，將會通過粵語授課。總共有八次課節，每週一次。授課內容包括兩個部分：第一部分是心靈健康的遊戲及活動；第二部分是引導參加者進行各種正念及靜心的冥想。

在課程的不同階段，參加者需要完成一些網上問卷。在課程結束之際，參加者也會被邀請分享對於本課程的看法以及評價。所有獲得的資料會做保密處理。閣下的個人資料也會作匿名處理。

請點擊如下鏈接完成註冊：<https://goo.gl/forms/NQhvSQVpiZpRRDmX2> 如有疑問，您可發郵件至 [mindfulness.wbeing@gmail.com](mailto:mindfulness.wbeing@gmail.com)，或者致電 Ms. Ann Ly

。該研究是由 EDD 學生 Ann Ly 女士進行，由龔仁崇博士以及楊少詩博士為導師。

心理學系

香港教育大學

**Appendix G: Informed Consent Form**

THE EDUCATION UNIVERSITY OF HONG KONG

Department of Psychology

**CONSENT TO PARTICIPATE IN RESEARCH**

Preventing Hong Kong Teachers' Burnout by Mindfulness Intervention: A Mix  
Method Study

I \_\_\_\_\_ hereby consent to participate in the captioned research supervised by Dr. Ronnel King at the Department of Curriculum and Instruction, and conducted by Miss Ly Sau Ting Ann who is a student at the Department of Psychology in The Education University of Hong Kong.

I understand that information obtained from this research may be used in future research and may be published. However, my right to privacy will be retained, i.e., my personal details will not be revealed.

The procedure as set out in the attached information sheet has been fully explained. I understand the benefits and risks involved. My participation in the project is voluntary.

I acknowledge that I have the right to question any part of the procedure and can withdraw at any time without negative consequences.

Name of participant \_\_\_\_\_

Signature of  
participant \_\_\_\_\_

Date \_\_\_\_\_



## THE EDUCATION UNIVERSITY OF HONG KONG

Department of Psychology

## CONSENT TO PARTICIPATE IN FOCUS GROUP INTERVIEW

Preventing Hong Kong Teachers' Burnout by Mindfulness Intervention: A Mix  
Method Study

I \_\_\_\_\_ hereby consent to participate in the captioned focus group interview under the research supervised by Dr. Ronnel King at the Department of Curriculum and Instruction, and conducted by Miss Ly Sau Ting Ann who is a student at the Department of Psychology in The Education University of Hong Kong.

I understand that the focus group interview will be audiotaped, and that information obtained from this interview may be used in future research and may be published. However, my right to privacy will be retained, i.e., my personal details will not be revealed.

The procedure as set out in the attached information sheet has been fully explained. I understand the benefits and risks involved. My participation in the project is voluntary.

I acknowledge that I have the right to question any part of the procedure and can withdraw at any time without negative consequences.

Name of participant \_\_\_\_\_

Signature of \_\_\_\_\_

participant \_\_\_\_\_

Date \_\_\_\_\_



The Education University  
of Hong Kong Library

For private study or research only.  
Not for publication or further reproduction.

**Appendix H: Guiding questions for focus group interview**

Q1: After taken the entire EMPT, how do you find the program? We need honest feedback for improvements, also we hope we can help you reflect upon your experiences.

Q2: Was the program helpful to you and, if so, in what ways? Have you been able to relate these learning experiences to your daily lives?

Q3: EMPT consisted of two parts: one, on mindfulness practices and the other on thematic sharing; which part left a stronger impression on you or were they more or less helpful to you?

Q4: If we are to deliver the program again, what kinds of suggestions, from design to delivery, that you would suggest us to improve?

Q5: What did this program mean to you? Have you noticed any changes in you that you think is due to attending the program? It is also okay if you do not detect any changes.