

## Research Assessment Exercise 2020

### Impact Case Study

University: **The University of Hong Kong (HKU)**

Unit of Assessment (UoA): **UoA 37 Religious Studies**

Title of case study: **Transforming Buddhist Education and Curriculum in Hong Kong**

#### **(1) Summary of the impact**

Between 2013 and 2018, more than 20,000 teachers and students at primary and secondary schools across Hong Kong benefited from the innovative curriculum reform and meditation awareness programmes produced by the Venerable Sik Hin Hung of the Centre of Buddhist Studies at the University of Hong Kong. Sik has transformed and enhanced Buddhist education in Hong Kong by developing the curriculum and corresponding teaching materials for “Buddhist Moral Education and Values,” which has been adopted as a formal subject in 65% of local Buddhist secondary schools. Furthermore, as a result of Sik’s transdisciplinary, collaborative research into the neuropsychology of meditation and mindfulness, the impact has recently evolved to include the implementation of a model for teaching meditation to students and educators in secondary schools, enhancing their ability to manage stress in their social environments.

#### **(2) Underpinning research**

Sik is Founding Fellow of HKU’s Centre of Buddhist Studies, which was established in 2002. He was both Director and Assistant Professor in the Centre until 2018, and is currently Senior Advisor and Chairman of the Committee of the Master of Buddhist Counselling Programme. The research underpinning this project was conducted by Sik, his team of researchers at the Centre, and, more recently, collaborating scholars in the fields of electronic engineering, biomedical engineering, and health sciences at HKU, City University of HK, Shenzhen University and University of Bergen.

Sik’s study and analysis of Buddha’s core teachings, which postulate that a person’s mind is the chief determinant of their future, was central to his development of the concept of “Life Education Based on the Concept of Dependent Origination” – or LEDO. The principal aspects of LEDO include comprehending life, finding meaning in life, and managing life. LEDO, along with the Sense of Coherence developmental construct as defined by the medical sociologist Aaron Antonovsky, provided the conceptual framework for the “Orientation to Life Program” (OLP) [3.5]. Sik developed the OLP in 2004 both in response to a 2003 report by the Hong Kong Government’s Education Commission advocating a whole-person approach to education, and for the launch of a new Religious Studies (Buddhism) syllabus in the Hong Kong Certificate of Education Examination. The OLP programme is structured in a manner that infuses learning with the practice of meditation and contemplative activities to facilitate a deeper level of awareness, insight and compassion for oneself and others. Sik drew on his research for both LEDO and the OLP to revise the Religious Studies curriculum (Buddhism) for Hong Kong primary and secondary schools [3.5].

Sik’s work has, since 2016, taken the direction of innovative transdisciplinary and cross-institutional empirical research on the effects of Buddhist forms of mindfulness and meditation practices [3.1, 3.2, 3.3, 3.4]. Located at the intersection of religious studies, psychology, and neuroscience, this collaborative research has involved the exploration of the effects of Buddhist chanting on the brain’s responses to negative stimuli [3.2], as well as the use of EEG and ECG data to show how Buddhist mindfulness and meditation coordinates the activities of the heart and the brain [3.3, 3.4]. Previous studies had demonstrated that mindfulness-based programmes in the US were effective in helping children cope with forms of psychological distress such as depression and anxiety, and in reducing disruptive behaviour. However, there had been little research in this area in Hong Kong, and none of the existing studies had focused on Buddhist approaches to meditation. Sik’s research on Buddhist forms of mindfulness has been incorporated into workshops, presentations, and training for teachers, and has led to the development of a meditation programme in secondary schools to alleviate stress and improve psychological wellbeing.

### (3) References to the research

- 3.1 Wu, B.W.Y., and J. Gao., H.K. Leung, **H.H. Sik**. “A Randomized Controlled Trial of Awareness Training Program (ATP), a Group-Based Mahayana Buddhist Intervention.” *Mindfulness*, 2019, pp. 1–14.
- 3.2 Gao, J, and J. Fan, W.Y.B. Wu, G. Halkias, M. Chau, P.C.W. Fung, C. Chang, Z. Zhang, Y.S. Hung, **H.H. Sik**. “Repetitive Religious Chanting Modulates the Late-Stage Brain Response to Fear- and Stress-Provoking Pictures.” *Frontiers in Psychology*, vol. 7, 2017, pp. 1–12.
- 3.3 **Sik, Hin Hung**, et al. “Using Wavelet Entropy To Demonstrate How Mindfulness Practice Increases Coordination Between Irregular Cerebral And Cardiac Activities.” *Journal of Visualized Experiments: JoVE*, no. 123, 2017.
- 3.4 Gao, J, and J. Fan, W.Y.B. Wu, Z. Zhang, C. Chang, Y.S. Hung, P.C.W. Fung, **H.H. Sik**. “Entrainment of chaotic activities in brain and heart during MBSR mindfulness training.” *Neuroscience Letters*, vol. 616, 2016, pp. 218–223.
- 3.5 **Sik, Hin Hung** and Wu, Wai Yan Bonnie. “The Importance of the Buddhist Teaching on Three Kinds of Knowing: In a School-based Contemplative Education Program.” *Buddhist Meditative Praxis: traditional teachings and modern applications*. Ed. KL Dhammajoti. Hong Kong: The University of Hong Kong Centre of Buddhist Studies, 2015, pp. 253–290.

### Selected Grants

1. *Awareness Meditation School Curriculum*, (覺醒禪修教育課程). Sponsor: Quality Education Fund. 2015–Present, HK\$583,000.
2. *Awareness Meditation: Enhancing Physical and Psychological Well-being* (覺醒禪修：提升身心靈健康) Sponsor: D. H. Chen Foundation. 2017–Present, HK\$3,665,700.
3. *Life Education Based on the Concept of Dependent Origination (LEDO)*. Project: The Development of a New Set of Teaching Materials for Buddhist Moral Education and Values. Sponsor: The Hong Kong Buddhist Association. 2013–Present, HK\$1,200,000.
4. *Life Education Based on the Concept of Dependent Origination (LEDO)*. Project: The Development of a New Set of Teaching Materials for Buddhism Curriculum for Upper Primary and Lower Secondary. Sponsor: Tung Lin Kok Yuen. 2008–2012, HK\$1,800,000.
5. *The possibility of integrating Buddhist Teaching into the NSS curriculum for Liberal Studies*. Sponsor: Li Chong Yuet Ming Buddhist Studies Fund. 2006–2009, HK\$1,000,000.
6. *Development of the learning resource packs on new senior secondary ethics and religious studies - Section D*. Sponsor: Education and Manpower Bureau of the Hong Kong Government. 2006–2007, HK\$485,000.

### (4) Details of the impact

***Curriculum Innovation in Buddhist Moral Education and Values Based on LEDO and the OLP*** Between 2013 and 2018, over 20,000 teachers and students have benefited from the teaching materials, textbooks, and curricula (“Buddhist Life Education” and “Buddhist Moral Education and Values”) that Sik developed as a result of his research on LEDO and the OLP. His work has had a transformative impact on the teaching of Buddhism in primary and secondary schools in Hong Kong. A review of the existing Religious Studies curriculum on Buddhism by the Hong Kong Government’s Education Commission in 2003 had found that it was too narrowly focussed on theory at the expense of the practical application of Buddhist values and principles to daily life. In addition, the lower secondary curriculum had not been revised for over 20 years. Sik’s new model emphasises whole-person development and integrates contemplative and experiential activities designed to help students cope with stress (i.e., through meditation) and develop skills for compassionate and more ethical living (i.e., through helping the underprivileged, promoting animal welfare, and respecting the environment and living things).

Thirty-four sets of textbooks have been published to date, both in print and electronically; and over 16,000 books have been sold by the publisher, the Hong Kong Buddhist Association, since September 2013 [5.1]. Eighteen schools ordered textbooks through the Hong Kong Buddhist

Association for the 2016–17 school year alone, and this number does not include textbooks sold through other sources and for which sales figures are unavailable. The materials are used as part of the curriculum for Buddhist Studies and Liberal Studies in at least 13 local Buddhist secondary schools, in which “Buddhist Moral Education and Values” has been adopted as a formal subject as a result of Sik’s research. Other school activities – including seminars, workshops and camps, as well as year-long extra-curricular programmes – have been developed based on these teaching materials. Past activities include a field trip to a mountain village school in Shaoguan, China, to provide education for children living in poverty (during which students pooled together money to purchase a cow from a butcher shop, thus saving it from slaughter); performing community service for people with intellectual disabilities by organising trips to local farms; and a Buddhist life-release ceremony in which students released fish purchased at the market into the sea. Educators and administrators at participating schools have noted the beneficial effects of this curriculum. According to Ms. Chan Shi-wan, a teacher at Buddhist Hung Sean Chau Memorial College, it has had “a positive impact on counselling work in the school,” particularly on “students with weak academic performance” [5.2]. Director of Buddhist Studies at Tai Hung College, Ms. Lok Wai-ling, says that it has given the students an “opportunity to explore and [...] find meaning in life, and to [...] cope with life’s difficulties. Students also have a deeper understanding of Buddhism and have converted to Buddhism” [5.3].

### ***Creating Meditation Programmes and Spaces for Hong Kong Secondary Schools***

As a result of his research findings on the effectiveness of meditation and mindfulness in coordinating activities of body and mind, controlling anxiety, and coping with stress, Sik has developed a six-year programme designed to sequentially teach secondary school students the theory and techniques of Buddhist meditation. The curriculum is based on a major Buddhist canon on meditation and the practice aims to enhance students’ ability to attend to, observe, and know the nature of the body, feeling, the mind, and worldly phenomena. Insights gained from the meditation practice can assist students in finding meaning in life as well as in managing their psychological responses to its challenges and adversities. This programme represents a significant shift in the role of meditation in Buddhist education. Where previously it was included as an extra-curricular activity, it now forms a central component of the required curriculum.

The implementation of the programme, which was launched in 2016, affects 10,000 students enrolled in 13 Buddhist secondary schools in Hong Kong (65% of all schools), as well as 100 teachers who have received training. The course curriculum includes two Buddhist meditation textbooks (禪修課本) and two Buddhist meditation homework books (禪修作業) developed by Sik [5.4]. Students are evaluated at the beginning and end of each school year on several factors, such as stress level, self-esteem, self-regulation, and empathy. While a comprehensive review of the programme’s impacts is still ongoing, student and teacher testimonials attest to its beneficial psychological effects.

Students who participated in the meditation programme at Buddhist Tai Hung College reported on its various positive effects in *Buddhist Compassion* magazine. Student Tang Sze-yin stated that, “in addition to raising awareness, meditation can relieve tension, especially before the exam. When [he] is nervous, the original focus on breathing can really stabilise [his] emotions, help to relax, and perform better.” Meditation techniques helped student Tam Chan-lam deal with anxiety in school interviews: “When I was interviewing, I was very nervous. I only used a little time to meditate [...] and I could express myself more clearly. The result was better than expected.” Another student, Lee Kai-ham, reported that meditation helped him manage his obsessive-compulsive symptoms [5.5]. Further anonymous feedback from students at Buddhist Wong Wan Tin College in 2017 revealed that the mindfulness and meditation activities helped them to “decompress,” “relax,” and “calm the mind”; “focus on breathing,” thus facilitating a “clear understanding of the self”; “pay attention to everything” – including sounds and the taste of food – thereby helping them “discover another kind of happiness”; and get some sleep during long nights of restless thinking and insomnia [5.6]. Ms. Hui Pui-ki, Panel Chairperson of Buddhist Studies at

Buddhist Wong Wan Tin College, reports that, “meditation has had a significant impact on the physical and mental health of students” [5.7]. The Director of Buddhist Studies at Buddhist Tai Hung College, Ms. Lok Wai-ling, claims that the meditation course has “improved public test results” [5.3].

The new role of meditation in Buddhist education at schools in Hong Kong has been further supported by infrastructural improvements to school facilities and environments. Sik has overseen the construction of designated meditation rooms in the Buddhist schools involved in the study. According to Ms. Hui Pui-ki, “the power of the ‘soft’ space [of the meditation rooms] allows students to meditate deeply and calm the mind” [5.7]. Ms. Lok Wai-ling writes that the room, “which is set up next to the main entrance of the school, attracting the attention of nearby residents and increasing its religious atmosphere,” encourages “meditation at home” and facilitates the teaching of “family meditation” to enhance the harmoniousness of students’ home environments [5.3].

### ***Professional Training***

Sik has been active in leading seminars, workshops, and discussion forums for educators in Hong Kong, Taiwan, and Mainland China, and in conducting activities relating to the integration of Buddhist life education, mindfulness, and meditation into the curriculum. He organised and participated in the Education Bureau-sponsored training course for teachers, “Ethics and Religious Studies Curriculum: Mindfulness Practicing and Resilience Building in Schools,” held in September 2016. More recently, he presented a talk on “Strategies for Promoting Mindfulness and Meditation and Introduction to Learning Package for Non-Buddhist Schools” for the Education Bureau at the Kowloon Tong Education Services Centre (2019). Participants lauded the session as “very pragmatic and valuable,” “comprehensive and helpful,” and “inspiring,” further declaring the presented case study and experiential activities “impressive” and “evidence for the effectiveness of the meditation programme.” One participant claimed the exercises performed in the session “helped to increase [his] mind-body wellness” [5.8]. Sik is also currently an advisor on education matters for Our Hong Kong Foundation (OHKF), a non-profit organisation that promotes the interests of Hong Kong by means of public policy research and analysis.

### **(5) Sources to corroborate the impact**

- 5.1 Sales and distribution information from publisher, the Hong Kong Buddhist Association.
- 5.2 Statement by Ms. Chan Shi-wan, teacher at Buddhist Hung Sean Chau Memorial College.
- 5.3 Statement by Ms. Lok Wai-ling, Director of Buddhist Studies, Buddhist Tai Hung College.
- 5.4 Order and distribution forms for the affiliated schools from the publisher, the Hong Kong Buddhist Association.
- 5.5 *Buddhist Compassion* Magazine, Issue 493, published on 12 July 2018.
- 5.6 Anonymous student statements given in response to open-ended questions in a 2017 survey conducted among 406 pupils at Buddhist Wong Wan Tin College.
- 5.7 Statement from Ms. Hui Pui-ki, Panel Chairperson of Buddhist Studies Department, Buddhist Wong Wan Tin College.
- 5.8 Participant feedback from “Strategies for Promoting Mindfulness and Meditation and Introduction to Learning Package for Non-Buddhist Schools” for the Education Bureau at the Kowloon Tong Education Services Centre (January 19, 2019).