

## **Applying the Concept of ‘Unlearn to Learn’ for Sustainability in Vocational and Professional Education and Training (VPET): Implications for Teacher Training**

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### **Abstract**

The need to improve competencies of vocational and professional education and training (VPET) teachers to develop facilitation skills to enhance teaching practices and keep abreast of the up-to-date industry trends for curriculum development is a key sustainable development goal in VPET. It is directly related to Sustainable Development Goal 4 (SDG4) that highlights the need to improve quality of education at all levels. Given that VPET stresses the constant updating of work competencies to cope with the rapid changing technologies in industries, the concept ‘*learn to unlearn*’ and ‘*unlearn to learn*’ seem to be a promising solution for capacity building of VPET personnel. Toffler (1997) asserted that the illiterate of the 21<sup>st</sup> Century are not those who cannot read and write but those who cannot learn, unlearn and relearn. Some defined unlearn as giving up prior learnt concepts and deeply held assumptions to enable new learning (Klein 1989; Pighin & Marzona 2011). Nonetheless, to unlearn is not to forget. It is rather to re-focus, to re-form thinking patterns and to view things with new perspectives to strive for new knowledge and understanding. During the process of unlearn, one begins to re-form prior knowledge by putting aside preconceptions and assumptions in order to generate new knowledge. In VPET, new technologies, up-to-date work competencies and teaching practices are the key areas for acquisition and capacity building of VPET personnel. In this regard, the concept of ‘*learn to unlearn*’ and ‘*unlearn to learn*’ contributes to the sustainable development of VPET personnel. This paper discusses the sustainability needs for curriculum, learning and teaching practices, pedagogies and the importance of teachers’ continuing professional development (CPD) in VPET. This paper also addresses to what extent ‘*unlearn*’ contributes to the 21<sup>st</sup> Century’s skills and together with teacher training, how it nurtures better VPET teachers.

**Keywords:** *Unlearn to learn, Teacher training, Sustainability, curriculum, Pedagogy, Vocational and professional education and training (VPET)*

### **1 Introduction**

Recently, vocational and professional education training (VPET) or in another name: technical and vocational education and training (TVET) is getting global attention. The United Nations Educational, Scientific and Cultural Organization (UNESCO) regards TVET as “comprising education, training and skills development relating to a wide range of occupational fields, production, services and livelihoods” (UNESCO 2015, 2). TVET is also a means to empower individuals for employability through an alternative educational pathway

(UNESCO 2016). Studies revealed that there are increasing numbers of learners taking up studies in vocational education in the past decade (Thomson 2011, “Vocational Exams on the Increase” 2009, National Centre for Vocational Education Research 2010, Ministry of Manpower Singapore Government 2010, Ministry of Education of the People’s Republic of China 2010). While future employability is promising, TVET is often hindered by its nature of overly focused on specific trade skill training. TVET is influenced by rapid technology advancement and a new set of 21<sup>st</sup> century work competencies to cope with the uncertain and unpredictable labour market (Trilling & Fadel 2009). Promoting transformation and sustainable development of TVET education systems is a key focus in UNESCO’s TVET Strategy 2016 to 2021 (UNESCO 2016). For sustainable development and quality education in TVET, staff development should build work competencies and skill upgrading for lifelong learning and societal well-being seems to be the answer (Pavlova 2013; Pavlova 2016).

One of the key sustainable development goals in VPET is for the need for VPET teachers to improve their competencies in facilitation skills and teaching practices as well as keeping abreast of the up-to-date industry trends for curriculum development. Given that VPET stresses the constant updating of work competencies to cope with the rapid changing technologies in industries, the concept ‘*learn to unlearn*’ and ‘*unlearn to learn*’ seem to be a promising solution for capacity building of VPET personnel. This paper will first discuss the challenges of TVET/VPET then articulates the concept of ‘*learn to unlearn*’ and ‘*unlearn to learn*’ to reconsider the sustainability needs for curriculum, learning and teaching practices, pedagogies in VPET. This paper further explains to what extent ‘*unlearn*’ contributes to the 21<sup>st</sup> Century’s skills, followed by how continuing professional development (CPD) nurtures better VPET teachers to facilitate better VPET learning and teaching experiences and prepares VPET institutions for sustainability.

## **2 The Promulgation of Technology and Vocational and Professional Education and Training (VPET) in Hong Kong**

The Task Force on Promotion of Vocational Education was formed in 2014 by the Hong Kong Special Administrative Region (HKSAR) Government to conduct studies and advise the Secretary for Education on strategies and concrete proposals to raise the awareness and recognition of vocational education in Hong Kong. Making references to the best practices of TVET in other countries and a series of public engagement activities to measure the stakeholders’ perceptions towards TVET and views on the promotion of TVET in Hong Kong, the Task Force on Promotion of Vocational Education in Hong Kong recommends that the main reformation of vocational education rests on:

1) *Rebranding* “to rebrand VET in Hong Kong as Vocational and Professional Education and Training (VPET) covering programmes up to degree level with a high percentage of curriculum consisting of specialised contents in vocational skills or professional knowledge” (Education Bureau of HKSAR 2015, 86-87);

2) *Strengthen Promotion* in order to raise awareness and recognition of vocational education in Hong Kong for the promotion of the professional image of VPET, VPET's related career and life planning education; and

3) *Sustaining Efforts* recommends “the government to promote and support VPET on different occasions and recognition of VPET as an integral part of the community” (Education Bureau of HKSAR 2015, 102) as well as seeking the major chambers of commerce's support to enhance the status and career progress of VPET.

The above summarised the salient points of the Report (Education Bureau of HKSAR 2015) while implications on VPET's curriculum, learning and teaching, staff and learners' capability building for sustainability are yet to be explored.

### **3 21<sup>st</sup> Century Skills and VPET**

21<sup>st</sup> Century skills stress on functional literacies (core skills for everyday tasks), competencies approaches (to solve complex challenges) and character qualities (approaches to cope with changing work environment) to nurture people with a range of skills such as information technology, cultural awareness, finance, complex problem solving, creativity, critical thinking, emotional intelligence, cognitive flexibility professional service orientation and team working skills to cope with the fast changing economical, societal and technological advancement (World Economic Forum 2016). Traditionally, TVET emphasises mastery of hands-on skills and “the teaching content of higher vocational education is much more complex and cannot be completely resolved by the general theories contained in general pedagogy” (Maoyuan 2007, 16). Unlike most of the higher education institutions, VPET's learning and instructional resources require a large amount of demonstrations, practices and interactivities to suit its specific needs (Robertson 2007; Tsang, Yuen, & Cheung 2014). As putting theories into practices is the essential aim of VPET, a good alignment between curriculum design, learning and teaching and professional practice would well suit nowadays' high demanding work environment. Findings from “A Report on the Cross-institutional Study of Vocational Education and Training (VET) Students' Learning Needs as well as Teachers and Workplace Mentors' Teaching Practices” (Ng, Lam, Ng, & Lai 2016) revealed that “flexibility, guidance, collaboration and training would be able to accommodate VET students, teachers and workplace mentors' learning and teaching needs” (Ng, Lam, Ng, & Lai 2016, 3). It is suggested that using various kinds of media and innovative pedagogical practices such as technology enhanced learning (TEL) would accommodate learning and teaching needs for students with different learning styles. Furthermore, use of new technologies to blend face-to-face teaching with e-learning or mobile learning were identified as specific instructional strategies for effective learning and teaching in VPET. Presumably, incorporating the above learning and teaching pedagogies and 21<sup>st</sup> Century skills would help advance and sustain VPET's development. It is understood that timely and adequate teacher training and staff development would prepare VPET teaching staff with up-to-date curriculum planning and pedagogical practices to facilitate a better learning environment for learners.

Interestingly, studies revealed that similar to academics in higher education, VPET teachers generally remained passive on teacher training especially in TEL and blended-learning because the above required fundamental concept change and paradigm shift to their current teaching practices (Walker, Towey, Lamb, & Ng 2019; Ng & Lam 2015) without mention the embedding of 21<sup>st</sup> Century skills in their daily teaching practices. The question remains: as teachers' capability building is considered as a major sustainability factor to nurture better VPET learning and teaching practices, what are the strategic development and implementation plan to enable the concept change and paradigm shift in VPET?

#### **4 *'Learn to Unlearn' and 'Unlearn to Learn'***

To enable concept change and paradigm shift for VPET teachers to facilitate better VPET learning and teaching practices for sustainability, the philosophy of sustainability and lifelong learning was adopted. Arguably, acquiring new knowledge requires a step by step learning process (remembering, understanding, applying, analysing, evaluating and creating) that best illustrated in Bloom's taxonomy (Forehand 2010). Conversely, Knowles' (1968) andragogy theory asserted that adults are generally more self-directed, internally motivated and prepared to learn. Using the andragogy theory to analyse VPET teachers' refraining from teaching development, the reasons would be, firstly, they need "Practical Reasons to Learn": adults or experienced learners need practical, problem-centered approaches to learning. It is not surprised that adults or experienced learners return to continuing education for specific incentives and practical reasons, such as job promotion or new job requirement. Secondly, "Past Learning Experience": adults or experienced learners have accumulated years of working background and learning experiences as opposed to young learners who are in the process of earning new learning experiences. Given that, duly recognition of their prior experiences is needed. Further articulating the above revealed that adults are self-directed and prefer to participate in the development of their learning content while learning shall ride on their prior experiences. In addition, incentives are needed as adult learners focus on practicality.

VPET teachers are experienced trade masters/instructors/teachers with intensive training received during their apprenticeships in former professional practices. Their trade skills and instructing methods are scenarios based, passed-on and inherited from their workplace mentors and somehow lack systematic instructions. Skills are learnt in workplaces through observations without thorough understanding of underpinning knowledge or theories. Mager (1997) contended that trainers repeatedly giving wrong instructions are harmful to learners' grow. The instructing methods and work practices will deeply printed in the learners' preconceptions. A strong belief may result from the accumulated prior experiences and work practices and eventually lead to the reluctance to change. As mentioned earlier, reasons that teachers refrained from changes are because of the need of fundamental concept change in trade practices and paradigm shift to their current teaching practices.

Toffler (1997) asserted that the illiterate of the 21<sup>st</sup> Century are not those who cannot read and write but those who cannot learn, unlearn and relearn. Some defined unlearn as giving up prior learnt concepts and deeply held assumptions to enable new learning (Klein 1989; Pighin & Marzona 2011). Nonetheless, to unlearn is not to forget, it is rather to re-focus, to re-form thinking patterns and to view things with new perspectives to strive for new knowledge and understanding. Klein (1989) contended that unlearn is not to throw away knowledge but to put it aside temporarily and to parenthesise. Similarly, Schein (1999, 2006) proposed a process to unfreeze, re-freeze to receive new knowledge. Einstein's motto of '*insanity*': doing the same thing over-and-over again and expecting different results best illustrates the concept of '*unlearn*'. During the process of unlearn, one begins to re-form prior knowledge by putting aside preconceptions and assumptions in order to generate new knowledge. The concept of '*unlearn*' is a déjà vu in the business sector to cope with the rapid changes in the market. Short product cycles, continuous obsolescence of know-hows, the urge for innovation and exploration of the unknowns are the key drives for entrepreneurs to unlearn for sustainable improvement to overcome uncertainty. In the academic sector, conducting research to rectify theories for advancement is regular practices in academic. For VPET, continuous acquisition of new technologies, up-to-day skill competencies and work practices is crucial for sustainability. Constructivism theory of learning and teaching stresses the alignment of prior learning to enable learners to build new theories and advance knowledge. Similarly, building block approach has been a long time practice of most of the academics. It is rather a paradox for them to give up or to forget what was learnt, without mentioning to ask their students to unlearn in order to learn. Interestingly, the concept and application of '*unlearn*' in the education sector, especially in VPET has not been well addressed.

## **5 Continuing Professional Development (CPD) for VPET Teachers: Strategies, Policies and Implementation**

### **5.1 Strategies and policies**

Teacher training has been recognised as a particular and complex stage of intervention to stimulate teacher learning and to maintain their up-to-date teaching skills (OECD 2005). Universities and VPET teaching staff are encouraged to pursue their career-long continuing professional development (CPD). CPD is important for academics and VPET teaching staff to update academic knowledge, industry trends and maintaining work skills. Redman (2015) has also argued that CPD led to the improvement of staff retention through gains in self-confidence.

VPET stresses the constant updating of work competencies to cope with the rapid changing technologies in industries. Thus, '*learn to unlearn*' and '*unlearn to learn*' seem to be a promising solution for sustainability in VPET. '*Learn to unlearn*' and '*unlearn to learn*' enable one to rethink and revalidate old and new knowledge, reflect on prior practices and react by generate new insights and follow up actions. However, in a recent study, Walker, Towey, Lamb, & Ng (2019) found that teacher training is an unwelcomed CPD activity for

most of the teachers in universities and vocational institutions. Academics and teaching staff are well aware of supply-led and demand-driven professional development. It is also clear that the effectiveness of professional development rests upon the extent to which it meets the developmental needs. The study further argued that if a professional development programme is not fit-for-purpose, then, should it be discontinued and replaced with something more appropriate? Furthermore, the study also implicated that future research direction will explore CPD programmes other than higher education.

To extend the findings and the implications of the study, the following sections look into the strategies, policies and implementation of a teacher professional development framework in Hong Kong's the largest VPET institution (VPETI) and discuss to what extent the framework articulates the concept of '*unlearn*' and contributes to the 21<sup>st</sup> Century's skills so as to nurture better VPET teachers.

VPETI has been promoting and encouraging teacher development through a series of mandatory and voluntary training activities that including structured programmes, workshops, seminars, sharing and consultation sessions since the establishment of her teaching and learning centre (The Centre) in 1998. The Centre's teacher training programmes aim to provide training for teaching and instructing staff through structured programmes, seminars, workshops, and sharing sessions to promote effective, innovative and quality learning and teaching. As VPET experienced rapid changes in the recent years, The Centre worked with senior management, academic disciplines and other supporting units in VPETI to review, re-develop and proposed a learning and teaching strategic plan for staff's capability building to cope with the sector's changing needs and the institution's strategic plan. The CPD policy was firstly discussed in 2010 and consents were made between stakeholders in the VPETI. 40 hours of voluntary CPD in a consecutive of two-years (including attending programmes, workshops etc. by The Centre or other self-arranged activities such as self-study, academic paper publications, attending academic conferences and educational events, industry attachment and others) is required.

With the key focus on the 21<sup>st</sup> Century skills, "*learn to unlearn*" and "*unlearn to learn*", the CPD framework aims to develop quality staff as a talent management for the sustainable development through mandatory and voluntary staff training programmes, workshops, seminars and sharing sessions. The CPD framework serves as a roadmap to guide individual staff's continuing professional development and is structured around four domains, namely (a) pedagogical development, (b) professional practice and industry engagement development, (c) administration and management services development, and (d) organisational leadership and management development. It is designed to facilitate staff to plan their career pathway and to attain the required competencies for professional advancement on a mandatory or voluntary basis to enable staff's sustainable development as well as the strategic development of VPETI. The framework rides on the existing CPD policies and practices. Senior management, The Centre, academic disciplines and related units will review the needs of staff regularly in response to the changing internal and external environments for the prioritisation of specific training.

## 5.2 Implementation

To implement the CPD framework (Figure 1) and to support the activities in the four respective domains, the following actions were taken:

To support (a) pedagogical development, The Centre's existing staff development mandatory programmes 1) Introduction to Teaching Programme for New Teachers (24 hours), 2) Advanced Teaching Programme (18 hours), 3) other voluntary programmes for Higher Education Teaching Programme (12 hours), 4) Teaching Top-up Degree Programme (6 hours), 5) Part-time Teaching Programme (6 hours) together with 6) various workshops and seminars to keep teaching staff abreast with up-to-date trends and practices in education and provide a solid foundation of pedagogical knowledge and teaching skills for VPETI's new and in-service teaching staff. The hidden curriculum of The Centre's learning and teaching programmes is to promote "*learn to unlearn*" and "*unlearn to learn*" under the rapid changing VPET environment.

Whilst VPETI aims to equip teachers' 21<sup>st</sup> Century skills that include information technology, cultural awareness, finance, complex problem solving, creativity, critical thinking, emotional intelligence, cognitive flexibility professional service orientation and team working skills to cope with VPETI's strategic development, the implementation of the three new staff development domains (b) professional practice and industry engagement development, (c) administration and management services development, and (d) organisational leadership and management development are as follows:

Domain (b) professional practice and industry engagement development focuses on areas such as industry attachment, marketing, networking and trade specific upskilling. It also articulates VPETI's existing industry attachment policy that allows staff to participate in different activities such as consultancy, networking events, staff exchanges and sabbatical leave for industry attachment for a period of time. Industry attachment allows staff for immersion in specific trade industries to learn new knowledge and brush up their skills by unlearning what they have learnt to overcome continuous obsolescence of know-hows. It echoes with the concept of "*unlearn to learn*" to re-focus, to re-form thinking patterns and to view things with new perspectives to strive for new knowledge and understanding so as to urge for innovation for sustainable improvement.

Domain (c) administration and management services development enables veteran teaching staff to take up or migrate to roles of administrators in various functional areas and supporting units such as central administrative and discipline planning offices, academic support and industry partnership units, external relationship and institution development offices etc. In collaborating with human resources division, The Centre and other operational units, a range of staff training programmes, workshops and seminars on management and administrative, for example, Operation Management, Work Effectiveness, Ethical Practices, Cultural Awareness, Intellectual Property, Proposal and Report writing Skills, Language Skills (English, Mandarin) and Digital Literacy are offered to prepare staff's to acquire the 21<sup>st</sup> Century Skills to cope with VPETI's strategic needs.

Domain (d) organisational leadership and management development comprises a Coaching and Mentoring Scheme, a series of programmes in Organisational Behaviours, Corporate Governance, Strategic Management, Entrepreneurship, Leadership and Business Ethics to broaden middle management’s visions and horizons for the preparation of succession in different schools, offices and units.



Figure 1: The CPD framework with supporting activities in the four domains

There are two phases in the CPD framework. The first year is a pilot year to be followed by a review of the effectiveness by consolidating and analysing feedback from relevant stakeholders, and proposal of improvement action plans for the full implementation of the framework in the following year.

## 6 Discussion and Implications

As the CPD framework has just been rolled-out in the academic year of 2019, empirical study is yet to be conducted. Nevertheless, there are a few salient points that are worth discussing.

Firstly, it is important to have a well-defined aim to steer the CPD framework. With the overarching philosophy of “*learn to unlearn*” and “*unlearn to learn*” and *focus on 21<sup>st</sup> Century Skills to prepare teaching staff to accommodate the rapid changing issues in the education sector, the CPD framework in VEPTI is more than a staff development initiative. It is rather a holistic institutional development project that closely ties with the institution’s*

*strategic plan for advancement. The CPD framework articulates the transformation and sustainable development of VPET education systems in response to the global issues of employability in the uncertain and unpredictable labour market, technology advancement, skill upgrading for lifelong learning and societal well-being. It is a big leap to apply the concept of 'unlearn' in the education sector, especially in VPET to cope with the rapid changes for sustainable improvement for advancement. As there is a large numbers of self-financing higher education institutions in Hong Kong, VPETI's CPD framework makes a good reference for stakeholders to plan for strategic and sustainable development, staff capability building and institution advancement to cope with the keen competitions in the market.*

Secondly, as teachers' capability building is considered as a major sustainability factor to nurture better VPET learning and teaching practices, a discreet strategic development and implementation plan that consider both external and internal needs would enable the concept change and paradigm shift to sustain the development of VPET personnel. In the past two decades, although teacher training are increasingly popular and become important in many higher education and VPET institutions to promote better learning and teaching experiences through enhancement of pedagogical knowledge and facilitation skills with promising results (Rhodes & Bellamy 1999; Ho, Watkins, & Kelly 2001; Rubak, Mortensen, Ringsted, & Malling 2008; Khan & Sarwar 2011; Ng, Leung, Chung, & Lau 2010), most of the training programmes, workshops and seminars have not touched on the areas of professional practice, industry engagement development, administration and management services development, and organisational leadership and management development. The reason rests on the stability of the education sector in the past few decades. With decreasing birth rate and the demand of manpower, steady government funding, long lasting curriculums, a general understanding of pedagogical knowledge and learning and teaching skills was able to cope with the previous needs. However, the rapid changes in the education sector in the last decade, higher education institutions have undergone budget cut, structural changes, curriculum reformations as well as the need of innovative pedagogical practices. There is a need for teaching staff to change their roles from solely teaching to learning programme development and administration. Teachers need to split time between teaching and industry consultation while enhancing their management skills for effectiveness. Since most of the newly developed learning programmes in private universities are operated in self-financing models, this phenomenon of changes is not new to the academics who used to engage in academic research and teaching. Teacher training and staff development programmes addressing the aforementioned areas would able to nurture them with skills that cope with the 21<sup>st</sup> Century's needs in order to sustain their careers in education. This also echoes OECD's suggestion that TVET's sustainable development relies on a tripartite partnership between government, employers and unions to ensure that the world of learning is connected at all levels with the world of work (OECD 2010) and Diep and Hartman's (2016) view to link TVET teachers' competence to real work process in real workplaces and to update the content of the curriculum.

Implications of this study suggest 1) adopting proactive business models from business sector into education sector as solution to cope with challenges and 2) staff development for teaching staff shall add in administration and management related knowledge in addition to pedagogies for sustainable career development. Further research should focus on the effectiveness and the perceptions of stakeholders on applying business strategies in education sector. Lastly, studies on the implementation and effectiveness of the CPD framework would shed insights on the usefulness and to what extent it can articulate the 21<sup>st</sup> Century Skills.

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CITATION:

Lam, R. & Ng, R.Y.K. (2020). Applying the Concept of 'Unlearn to Learn' for Sustainability in Vocational and Professional Education and Training (VPET): Implications for Teacher Training. In: TVET@Asia, issue 14, 1-13. Online: <http://www.tvet-online.asia/issue/issue-14/lam-et-al> (retrieved 31.12.2019).

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