## **E**DITORIAL

## 'Tis The Season To Reflect On Our Teaching and Learning

### Eric CHAN

Professor, Department of Pharmacy, Faculty of Science, National University of Singapore

Correspondence:

Name: Professor Eric CHAN

Address: Department of Pharmacy, Faculty of Science, National University of Singapore, 18 Science

Drive 4, Singapore 117543.

Email: eric.chan@nus.edu.sg

#### Recommended Citation:

Chan, E. (2019). 'Tis the season to reflect on our teaching and learning. Asian Journal of the Scholarship of Teaching and Learning, 9(2), 92-96.

## 'Tis The Season To Reflect On Our Teaching and Learning

The buzz of the festive season is around the corner. It is that time of the year that I am reminded to take stock of things in my life, and this includes reflecting on my teaching and my students' learning. Is my design of blended learning for the new pharmaceutical analysis module effective, and how do I find out? How might I measure the effectiveness in learning pharmacokinetic concepts of my students who attended my lectures on campus, and how does this compare with those who watched the webcast lectures at home? Indeed, the iterative processes of self-reflection, questioning of practices, learning of theories, formulation of solutions, testing of methods, measurement of learning outcomes, validation of pedagogy, and sharing of novel ideas are some of the important aspects of inquiry into teaching that underpin the scholarship of teaching and learning (SoTL).

AJSoTL provides a platform for the SoTL-Asia and international SoTL communities to share scholarly investigation of teaching and learning so as to promote innovations in higher education both regionally and internationally. In this issue, we are happy to share a bumper crop of publications comprising four Articles and five Reflections. Summarising these nine publications, I am happy to share with you three suggestions that may help improve our teaching and learning in 2020.

#### LOOK FOR METHODS TO SUPPORT OUR PURSUIT OF SOTL

As academics, we are comfortable with selecting methods and instruments appropriate for supporting our research. For instance, the chemists amongst us will select nuclear magnetic resonance (NMR) spectroscopy for the structural elucidation of chemical compounds, while the biologists will apply polymerase chain reactions (PCR) to detect genetic materials. Conversely, what methods and tools are available to support our inquiries into student learning and higher education research more broadly? While not exhaustive, the publications in this issue provide a glimpse of some possible methods that we may consider in our personal or collective pursuit of SoTL.

In their article, Shum and Fryer document their investigation of the teaching and learning approaches of graduate teaching assistants (TAs) using person-centred analysis, where their responses at the beginning and end of a training course were recorded using the Approaches to Teaching Inventory (ATI, comprising teacher-focused teaching- and student-focused teaching

scales) and the Study Process Questionnaire (SPQ, comprising surface learning and deep learning scales). With subsequent Latent Profile Transition Analysis, the investigators were able to identify participants with similar scores (subgroups) and analyse their development and movement between subgroups over time. We may consider using these tools to better track the teaching dispositions of our graduate TAs so that appropriate support can be provided to move them towards deep learning and student-focused teaching. This would be a worthy investment in higher education institutions where our graduate TAs play an important role in undergraduate teaching and learning.

Meanwhile, Tilakaratna, Brooke, and Monbec raise a pertinent question in their article: what represents critical thinking skills in academic writing within Asian contexts? To solve this question, the investigators adopted two frameworks, namely Systemic Functional Linguistics (SFL) and Legitimation Code Theory (LCT) to account respectively for how evaluative meaning is deployed by students in their assignments, and what kinds of knowledge critical review texts appear to value. In her article on the topic of transfer, Monbec documents adopting the SFL and LCT theoretical frameworks as well to address an equally complex problem pertaining to the application of knowledge from an academic literacy module to various core disciplinary module assignments. The findings from both studies are critical as they inform the attributes of critical thinking in academic writing from an Asian perspective and the dispositions of students towards knowledge which impact transfer. For those of us involved in the teaching and learning of academic literacy, similar methodologies could be formulated and explored to address complex questions related to communication, empathy, and ethics in addition to critical thinking skills and knowledge transfer.

One key goal of higher education is to develop graduates who are independent lifelong learners. To become an independent learner, the development of self-regulated learning skills becomes important. In their study, Tan, Loh, and Zhang developed an instrument to examine the extent to which self-assessment influences students' self-regulated learning behaviours. The instrument items comprised a list of self-regulated learning behaviours that has been curated based on relevant literature. An expert panel using the modified Delphi technique further validated face validity and content validity of the instrument. For those of us who are interested in investigating self-assessment in self-regulated learning, we may consider incorporating the validated instrument in our studies.

# THINK OUT OF THE BOX WHEN DEVELOPING INNOVATIONS IN EDUCATION

Universities are constantly developing innovations in education to engage students in active learning and improve learning outcomes. In this issue, several authors present novel pedagogies by thinking out of the box and integrating technologies.

To teach ethics to undergraduate engineering students, Musib developed authentic learning opportunities by creating comic strips and educational cartoons that incorporate real-life ethical scenarios. This novel approach in teaching ethics may be applicable to other professional undergraduate programmes in the university.

One neglected challenge in teaching and learning political philosophy is the difficulty in connecting theoretical and text-based scholarship to the real world. To circumvent this challenge, Field champions active learning where students engage in their own research, write an opinion piece and showcase it via a public website. This curricular innovation facilitated the application of theories by addressing real-world issues and connecting the opinions of students with a wider audience. This work will certainly inspire the SoTL community to work with students in developing products with greater societal meaning and impact.

To acquire the skills of administering a local anaesthetic injection via a specific nerve, dentistry students practiced delivery on classmates after receiving instructions from lecturers. Foong *et al.* developed a realistic three-dimensional (3D) printed anatomic simulator with augmented reality technology that is capable of providing immediate feedback to students on the accuracy of their initial attempts at giving an injection. With the advent of 3D printing and augmented reality technologies, I envision an increasing number of educators will leverage upon these tools to innovate the teaching and learning of cognitive and fine motor skills across various courses.

#### ABOUT THE AUTHOR

Eric Chan is Professor at the Department of Pharmacy, National University of Singapore, where he teaches pharmaceutical analysis and pharmacokinetic modules. He holds a concurrent appointment as Chair of the Department Graduate Committee. He is a member of AJSoTL's Editorial Board. See more at: <a href="http://nus.edu.sg/cdtl/engagement/publications/ajsotl-home/editorial-board-and-advisory-panel/eric-chan">http://nus.edu.sg/cdtl/engagement/publications/ajsotl-home/editorial-board-and-advisory-panel/eric-chan</a>.

#### TAKE STOCK OF OUR EDUCATION INITIATIVES

Universities around the world are introducing new initiatives to disrupt traditional ways of teaching and learning so as to "future-proof" their graduates. Such initiatives span from such pedagogical innovations as blended learning, to university-wide initiatives such as setting up a teaching excellence academies. The impetus for these initiatives is clear. However, it is equally pertinent to take stock and ensure they are aligned with the original intent and are delivering the postulated outcomes.

It is thus heartening that in their reflection, Seet and Gan evaluate the effectiveness of commonly adopted pre-class videos in a blended learning economics module. Instead of focusing merely on positive student perceptions, the authors argue that more could be done to address the four pertinent challenges in the design of blended learning environments, namely the need for flexibility, interaction, learning processes, and affective support. At the institutional level, Tisdell, Balasooriya, Langford, Steel, and Velan present a reflection on the Scientia Education Academy at the University of New South Wales (UNSW). Their examination of the creation, goals, activities and gaps of the Academy provides useful information for higher education institutions who may be considering ways of promoting, recognising, and rewarding educational excellence.

Similar reflective investigations using systematic evidence-informed approaches to investigate the effectiveness of other pedagogical innovations and university-wide initiatives are to be encouraged, such as those involving authentic learning, general education programmes, grade-free learning, lifelong learning, teaching mentorship, technology-enhanced learning and student feedback frameworks. This is paramount to ensure that we meet our goals, a common intention of both the academic management and educators.

#### CONCLUSION

It is my privilege to write the editorial for this exciting issue of *AJSoTL*, which itself is a testimony of the journal's monumental growth over the years. On behalf of the Editorial Board, I thank the authors for their contributions to our journal and the reviewers for taking the time to provide their constructive comments. 'Tis indeed the season to reflect on our teaching and learning and also to celebrate the many successful stories of SoTL in Asia. I wish all the readers a blessed holiday filled with grace, peace, and love.