EDITORIAL

Creating Change in the University Teaching and Learning Environment

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Recommended citation:

Lakshminarayanan, S. (2017). Creating change in the university teaching and learning environment. *Asian Journal of the Scholarship of Teaching and Learning, 7*(1), 1-4. https://doi.org/10.24112/ajsotl.73075

Creating Change in the University Teaching and Learning Environment

Many people believe that, as a society, we are more than ever before running out of jobs for people to do. With the future of work changing, it is important for the nature of education to change at an even faster rate just to maintain its relevance. The rising costs of education also mean that universities and teachers are held to greater levels of accountability and are increasingly called upon to provide evidence of the learning gains made by students and its relevance to society and the workplace. To re-orient education from a process that provides knowledge to one that creates interest in knowledge, and in translation of knowledge to tangible and intangible benefits to society, many top-down and bottom-up initiatives need to be implemented on a system-wide scale. The articles in this issue exemplify institution-wide as well as classroom-level reforms that seek to renew the higher education landscape.

This issue starts off with Adrian Lee's account of the institutional change process he managed as a Pro-Vice-Chancellor (Education) and Pro-Vice-Chancellor (Education & Quality Improvement) of the University of New South Wales between 2002 and 2006. In this second (and concluding) part of "From Teaching to Learning: Leading Change at a Large Research-intensive University", Lee elaborates on the outcomes, developments, and recommendations for shifting the teaching and learning culture. Written with a system wide perspective, this article would be very useful for academics who are embarking on leadership positions in their universities. Change has become the new constant, and more and more universities in Asia aspire to be research intensive. Against this backdrop, it is important for young academic leaders to be introduced to change management issues related to teaching and learning in the context of universities rather than in a generalized framework. I would go as far as recommending that this and other such articles form the material for compulsory reading and discussion at faculty development programmes conducted by universities.

The importance of developing writing skills in every university student needs no special emphasis. While some disciplines and programmes have embraced this idea for long, it is only relatively recently that faculty members in the professional disciplines are paying attention to the importance of communication skills development (particularly writing). This mindset change is largely driven by: (i) accreditation requirements which increasingly emphasize teamwork, report writing, and communication, (ii) repeated employer feedback that

indicates that universities have focused too much on content (most of which becomes irrelevant too soon) but have done relatively little to improve students' communication skills, and (iii) the increasingly complex nature of problems that graduates are expected to not only solve but also communicate the nature of the problem and the possible solutions to the multiple stakeholders in a clear manner. Science historian Ernst Peter Fischer recently remarked that "Science needs to be presented in a way that people can understand emotionally" (Fischer, 2016). Against this backdrop, Emerson's article "Writing Science: Implications for the Classroom" offers several models for universities to best embed writing and communication skills into the science curriculum. Emerson also makes the case for formally engaging graduate science student in writing programmes.

How often have we heard University Presidents and Provosts highlighting critical thinking as a key attribute they would like to see in their graduates. Developing critical thinking skills in students is seen as a cornerstone of University education. Brooke, in his paper titled "Using Semantic Waves to Guide Students Through the Research Process: From Adopting a Stance to Sound Cohesive Academic Writing" elaborates an instructional model that he has implemented in an Ideas and Expositions course "Sport and Socialization" offered to multiple sections of students who come from various major disciplines. Based on action research conducted over three semesters, Brooke makes a strong case for using gravity waving as a pedagogical strategy to instruct students about effective critical thinking in their academic writing process. As commented by one of the students, the power of this approach is its visual representation which informs the learner how well they have integrated their thinking, planning, executing, and communicating process. It would be fantastic to plot the semantic gravity (SG) trajectory of the students as they move through the several weeks in this course and see their net gains in terms of an SG index. Together with Emerson's article, readers will find enough ideas to put together writing- and communication-oriented modules in their academic programmes. The SG concept appears to be widely applicable, and educators in other areas could benefit from the references cited in Brooke's article.

The introduction of MOOCs and their growth has been a relatively new phenomenon in the higher education sector. While they are believed to democratize education and make good quality learning material accessible to anyone with access to internet, they have also raised several interesting questions to teachers, university administrators, employers, general public and for those involved in formulating education policy. The key concern has been the high dropout rates (typically 85-90%) associated with almost any MOOC. MOOC providers have come out with various creative mechanisms to

reduce the dropouts. Yet, thus far there is little published work that reviews and summarizes these measures or analyses the phenomenon using a framework. In their article titled "To MOOC or not to MOOC: A Review of Strategies to Manage High Attrition in MOOC Participation", Musib and Tay elaborate on a **S**upport-**T**rend-**E**xpenses-**P**ayout (STEP) framework—essentially a four-pronged strategy—to reduce the high dropout rates seen in MOOCs. The measures adopted by MOOC providers to reduce dropouts can be examined in the light of this framework; furthermore, new strategies can be developed by instructors or MOOC providers by utilizing the STEP framework.

Assessment is known to be a significant lever influencing student learning. The design of assessments, the time and location where students complete them, the format (individual vs. group work) and feedback on student work are even more critical in an era when: (i) the learning resources are globally distributed and available on multiple platforms, and (ii) the nature and process of learning itself is changing faster than ever before. Therefore, in a very timely piece, Geertsema provides a comprehensive and balanced review of the book *Excellence in University Assessment* authored by David Carless (2015). I am sure that the review will provide you an idea of what you can expect from the book, and also benefit from some personal, important observations made by Geertsema.

We hope the contents of this issue offer some interesting ideas and/or help readers reflect on theiryour current practices or those that they observe around them. Feel free to share your thoughts on the articles featured in this issue at http://www.ajsotl.edu.sg/issues/volume-7-number-1-may-2017/.

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