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“... the use of review questions and online quizzes based on the topics were very useful to consolidate the concepts...”

I frequently infuse technology into my teaching practice to transform the learning experience of my students. This is not done to simply make the learning experience more engaging or attractive by substituting or augmenting traditional practice, but by truly transforming the learning experience through substantial modification or redefinition of traditional practice. For example, the flipped classroom uses technology not as a simple substitute for traditional lectures, but to allow substantial modification to teaching practice, in particular the inclusion of active learning approaches to small class teaching. My implementation provides students with access to online video lectures prior to in-class sessions so that students are prepared to participate in more interactive learning activities that require higher-order cognitive skills. During flipped classroom, students are doing the lower levels of cognitive work (gaining knowledge and comprehension) outside of class, and focusing on the higher forms of cognitive work (application, analysis, synthesis, and/or evaluation) in class, where they have the support of their peers and instructor. Flipped classroom has allowed me to make the much vaunted functional shift in my teaching from ‘sage-on-the-stage’ to ‘guide-on-the-side’.

The peer review and peer grading that takes place during the term paper assessment item would be impracticable without technology. My most recent development in assessment has been a computer-generated individualised homework assignment. Technology is used to generate different assignments for every member of the class. This allows the assignment to be conducted at home without fear of plagiarism. This type of assignment redefines my teaching practice and transforms the students’ learning experience. It would simply not be possible to conduct a similar assignment through traditional means.

What Students Say...

“Though the module is rigorous and challenging, he has made the subject a lot more manageable, especially with weblinks he has provided, webcasts, qSMS to engage students in answering questions in lectures, and assignments on modelling data using excel. It’s an honour for me to have a lecturer like Dr. Lee.”