

With support from a Micro-module Courseware Development Grant, four micro-modules that cover four major topics in a first-year nursing course, “Fundamentals of Nursing I”, were developed to facilitate flipped classroom implementation. The four topics include: “Nursing diagnosis and care plan”; “Nursing care for patients with pain”; “Process of wound healing and wound care”; and “Techniques in wound dressing”. Each micro-module consists of: (1) an annotated PowerPoint; (2) a set of self-test questions; and/or (3) a tailored-made video.

Students are required to view the micro-modules and answer the self-test questions before class to gain preliminary information about each topic. The course teachers can then make use of the class time to revisit the important concepts described in the micro-modules and clarify any misunderstandings that might arise. At the same time, students are expected to participate in various in-class activities, such as discussion sessions and presentations, to consolidate what they learned in the micro-modules.

The project has been evaluated by inspecting the web-logs, and via student surveys and focus-group interviews. The web-log analysis showed that the micro-modules were viewed a lot (i.e., ranging between 438 to 3965 times). The surveys indicated that 69.5% of the students agreed that the micro-modules helped them to gain a better understanding of nursing knowledge and skills on the designated topics, and over 70% of the students were satisfied with the flipped classroom approach to teaching/learning. Analysis of the data from the focus-group interviews indicate that the majority of students enjoyed the new learning model, but some preferred to have more online exercises and less in-class discussion.

The findings of the current project help to motivate teachers to develop micro-modules and to implement flipped classroom teaching approach in other nursing courses.