With support from the Micro-module Courseware Development Grant, four micro-modules that covered two major topics in a first-year nursing course, "Fundamentals of Nursing I", were developed to facilitate flipped classroom implementation. The two topics included: "Meeting safety needs" and "Ensuring a safe and comfortable environment for care". Contents of the micro-modules were presented as animations or scenarios in virtual reality application.

The micro-modules aimed at facilitating students to gain preliminary concepts in the topics before class and support flipped classroom implementation. On the other hand, the "presence" offered in the VR application provided students with the opportunity to be an active participant in the simulated home and hospital environment. These experiences were difficult to be presented and described in the lectures. With the developed micro-modules, the course teachers could make use of the class time to revisit the important concepts described in the micro-modules and clarify any misunderstandings that arouse. At the same time, students were expected to participate in various in-class activities, such as discussions, to consolidate what they learned in the micro-modules. All these helped the students to apply their knowledge and practice their critical thinking skills.

To date, the project has been evaluated by student surveys and qualitative interviews. The surveys indicated that 88.6% of the students agreed that the micro-modules helped them to gain a better understanding of nursing knowledge and skills on the designated topics. Most of them (84.5%) agreed that the micro-modules helped them to learn at their own pace. Majority of students agreed that more micro-modules should be produced in the future. The qualitative interviews indicated that majority of students liked the developed micro-modules because the animations and VR application make learning more engaging and interesting. Most importantly, these micro-modules helped them enhance their understanding and awareness on safety for patients as well as health care professionals.

The evaluation indicated that the project has achieved its objectives effectively and completely.