

The project objective is to refine the flipped classroom of the course CMBI4001 Protein Trafficking on the KEEP Platform to include more and refined interactive components based on the feedbacks from the students, so as to improve the course and teaching continuously. By utilizing more advanced modules of the KEEP Platform, we aim to adopt several improvements to allow better understanding of the contents in the flipped classroom and timely response to the students' questions via the KEEP Platform component.

Students are required to finish the online quizzes after watching the lecture videos on the KEEP platform. The question types in the online quizzes included Multiple Choice and True or False. We have revised the question configuration so that students are allowed to view the correct answer after answering the questions. We have also added explanation to each question on the Platform to target the common misconceptions and mistakes for the incorrect answers. Explanation will be provided for all attempted questions for both correct and wrong answers, in order to reinforce the principle behind. We have included explanations for the 105 questions in the 7 online quizzes of the course.

A discussion forum has been established to facilitate exchange of ideas. Students can raise their questions encountered while learning via the flipped classroom. They are allowed to add a post in the forum, either in a question form to solicit a concrete answer, or as a discussion form to start a conversation. Other students are encouraged to contribute responses to the post, while the administrator can give comment to a specific response, to provide further explanation or to clarify the concepts.

We have utilized the assessment function in the KEEP Dashboard. It allowed administrator to select individual quiz and view students' performance analysis. It can also show the answer distribution of each question. We were thus able to find out the questions that most students get it wrong and the wrong answer that the students chosen. The misconceptions have been tackled correspondingly in the following lecture.