

GOOD Flipped Classroom CASE

Flipped Learning
and Teaching
Initiative



17

Instructor

Professor Kit-lun Yick

Department

School of Fashion and Textiles (SFT)

SFT102FY

Exploring Fashion

Class size

Lecture: 148

Tutorial: 40

Students

Year 1 students from BA (Hons)
Scheme in Fashion

Details of Flipped Classroom IMPLEMENTATION

Why did the instructor use the flipped classroom approach?

Prof. Yick recognises the vast amount of knowledge students need to acquire, but the limited class time of only 14 hours poses a challenge. She believes that the flipped classroom approach, which allows students to engage with the material at home, ensures they receive a comprehensive understanding of the subject matter despite the limited in-class hours. Therefore, she has implemented this approach in the new course.

How was the flipped teaching approach implemented?

Preparation of materials

Prof. Yick utilises the SFT's program book, promotional videos, and fashion-related content on YouTube, to introduce the spectrum of fashion education. These learning materials help develop students' key concepts and support their understanding of discipline-based professional career development, incorporating elements of entrepreneurship. Additionally, she utilised Generative AI (GenAI) to design self-assessment test questions and uploaded them to "uReply", a student response system used at PolyU, to evaluate students' learning performance.

Pre-class activity

In the first two weeks of lecture classes, Prof. Yick introduces flipped classroom practices to all students. In week 3, 6 and 8, she provides learning materials for students to read and watch, followed by a self-learning test consisting of five to six questions (with no lessons that week).

In-class activity

During weeks 4, 7, and 9, students engaged in multiple-choice questions (MCQs) and discussions based on pre-class activities. In week 4, the focus was on crafting personal profiles, which included options for exchange programs and secondary majors, facilitated through UReply during lectures. Week 7 was dedicated to preparing for an upcoming visit, while week 9 involved discussing and consolidating the video presentation of that visit, with quizzes conducted during tutorials. In-class activities were designed to help students apply and deepen their understanding of various specialisms, aiding them in selecting their specialism and planning their studies. Guest speakers were also invited to enrich the learning experience. Throughout weeks 7 to 9, students shared their findings from basic research and visits.

Post-class activity

Students are required to establish their own study plan for submission in week 13.

What are the good practices that can be learnt from this case?

Making use of generative AI to reduce workload

- Implementing a flipped classroom often presents the challenge of an increased workload for teachers. To address this, Prof. Yick leveraged GenAI to create self-learning tests. She utilised GenAI to analyse the program book and generate over 50 questions for students. This innovative approach not only reduced her workload but also ensured that the questions were comprehensive and aligned with the course material, enhancing the overall learning experience for students.

Varying pre-class questions to enhance active learning

- In every odd week, students are required to answer 5-6 questions randomly picked from an AI-generated question pool. This strategy not only ensures diverse assessments but also introduces fresh questions that keep students engaged during pre-class learning and in-class discussions. By varying the questions, it encourages students to thoroughly read the pre-class materials, enhancing their memory retention and understanding. Since each student answers different questions, it fosters rich discussions during class, allowing for varied perspectives and enhancing collaborative learning.

What were the challenges encountered during the implementation and what solutions were used?

Extensive preparation work for instructors

- Preparing pre-class learning materials imposes a significant workload on Prof. Yick. She must develop comprehensive and engaging videos and readings, which are time-consuming tasks. Ensuring that students complete these materials before class is crucial for the success of the flipped classroom model. Additionally, designing effective multiple-choice questions to assess students' understanding adds complexity, as they must accurately measure content comprehension and align with the learning objectives.

To address this challenge, Prof. Yick uses GenAI to generate the questions, significantly reducing the time and effort required. By leveraging GenAI, she can quickly produce a variety of well-crafted multiple-choice questions that assess students effectively, allowing her to focus more on critical aspects of teaching and course preparation.

Challenge of organising discussions in a large class size

- Managing discussions in a lecture with approximately 150 students poses significant challenges for Prof. Yick. Coordinating multiple group discussions simultaneously can be overwhelming. To tackle this issue, she utilises UReply, during her lectures. UReply facilitates and monitors group discussions more efficiently by enabling real-time feedback and interaction. This tool streamlines the process, ensuring that all students can participate actively and that their contributions are effectively managed despite the large class size. By leveraging UReply, Prof. Yick maintains an engaging and organised learning environment, even in a large lecture setting.

Unexpected technical challenges from students

- Students reported encountering technical problems with the LEARN@PolyU, which hindered their ability to complete assignments on time. In response to this challenge, Prof. Yick decided to postpone deadlines, giving students additional time to submit their work. Additionally, to ensure that learning continued smoothly, hard copies of self-checking multiple-choice questions were distributed to students in week 3.

What was the impact on student learning?

The recent assessment of students' performance in the study plan activity reveals a positive trend in their academic achievements. This assessment evaluates students' understanding of the industry, their ability to analyse creative ideas and fashion products, and their performance in critical thinking, analytical skills, continuous learning, and personal development. The results indicate an improvement in mean scores, with the 2024/25 academic year showing a mean score of 75.8%, a notable increase from the 71.8% recorded in the 2023/24 academic year. This upward trend suggests that students are increasingly benefiting from the flipped classroom learning model, leading to enhanced critical thinking and analytical abilities.