

# GOOD Flipped Classroom CASE

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Instructor  
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Department  
Department of Computing (COMP)

COMP3512

Legal Aspects,  
Professionalism and  
Ethics of Computing

Class size

(COMP) 120-130  
(EIE) 60-80

Students

Year 3 students from the  
Department of Computing and  
Department of Electronic and  
Information Engineering

## Details of Flipped Classroom IMPLEMENTATION

### Why did the instructor use the flipped classroom approach?

Compared to other subjects in the Department of Computing, this course does not focus on teaching technical skills related to computers or systems. Instead, it educates students on legal statements, ethical reasoning, and workplace practices. Consequently, students tend to show less interest and do not perform as well. To address this, Peter has been exploring ways to enhance both the teaching and learning experiences in this course.

In recent years, he was inspired by the concept of the flipped classroom, which may boost student engagement and motivation. With strong support from his department, Peter decided to implement the flipped classroom approach in this subject.

### How was the flipped teaching approach implemented?

→ Peter developed an innovative flipped classroom model where students alternate between self-learning and face-to-face classes in lecture room. In this model, students watch two lecture videos on a topic over two weeks at their own pace, and then returning to the university for a face-to-face class. This cycle repeats three times, with students engaging self-learning with new topics every two weeks, followed by a face-to-face class. During the self-learning weeks, Peter is available in the lecture room to assist with any student inquiries. This allows students to learn at their own pace and return to the lecture room to ask questions and discuss issues when they need support and help from Peter.

#### Preparation of materials

→ Peter has prepared six comprehensive lecture videos for his flipped classroom, each extending beyond three hours. To reinforce the learning, Peter has also created assignments that are directly related to the content of the videos. These assignments will impact the students' final grades, fostering active engagement and promoting a deeper understanding of the material.

#### Pre-class activity

→ During the self-learning weeks, students have to watch lecture videos and complete assignments, which are assigned at the beginning of the semester.

#### In-class activity

→ Peter employs a variety of in-class active exercises to reinforce the concepts students have learned from lecture videos. For instance, after covering a legal topic, he organises role-playing sessions where students act as Legislative Councillors to debate legal issues. Similarly, when addressing business ethics, Peter has students take on the roles of a boss or an employee to navigate and resolve ethical dilemmas. Sometimes, Peter invites guest speakers (such as Legislative Councillors, staff from the ICAC, etc.) to the class to share their expertise on related topics, providing students with valuable insights and real-world perspectives that enhance their learning experience.

#### Post-class activity

→ No additional post-class activities were assigned.

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

#### Designing and implementing the flipped classroom model thoughtfully

- Peter thoughtfully designs his flipped classroom model with a clear timetable, specifying which weeks are dedicated to self-learning and which are reserved for face-to-face sessions. Each class is structured with a clear objective and task, guided by pre-class videos, assignments, or in-class exercises. Additionally, he communicates this flipped classroom plan and timetable to his students at the beginning of the semester, ensuring they understand how to navigate this new but systematic learning approach. This thoughtful planning ensures that students have a full and clear picture of the flipped classroom setting, their duties, and the expectations placed upon them.

#### Incorporating diverse learning activities in the classroom

- To enhance the learning experience, face-to-face classes incorporate a diverse range of activities. These include role-play exercises, engaging discussions, presentations by guest speakers, and various project-based tasks. Such activities are designed to provide students with practical opportunities to apply the knowledge and skills they have acquired during the two self-study weeks. By participating in these interactive and hands-on sessions, students can deepen their understanding, collaborate with peers, and gain valuable insights from real-world scenarios. Most importantly, these methods ensure that students learn in an active and engaging way, making the process far from boring.

#### Supporting during self-learning weeks

- During the self-learning weeks, although students are expected to learn independently, Peter remains available in the classroom as a safety net. This allows students to seek help if they encounter difficulties, ensuring they can continue their learning effectively without getting stuck. Peter's presence also demonstrates a teacher's commitment and responsibility, countering any perception that self-learning or flipped classrooms are an excuse for teachers to shirk their duties.

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

#### Challenge for effective teaching in large class size

With a class size of about one to two hundred students, it is challenging for Peter to manage multiple group discussions simultaneously. Although there are two to three teaching assistants providing support, it is still difficult to facilitate the teaching effectively. He proposes a possible solution is dividing the class into smaller groups of 40 students and schedule these groups for alternating self-learning and face-to-face weeks. For example, while Group A is engaged in self-learning, Group B can attend the face-to-face class for in-class exercises and group discussions. This way, Peter and his assistants can facilitate more effective group discussions.

#### Opposite opinions from students about flipped classroom

While some students appreciate the flexibility of self-directed learning and the interactive nature of in-class exercises, others find it challenging to adapt to the new format. These students may feel overwhelmed by the increased responsibility for self-learning and prefer traditional lecture-based instruction. To mitigate this issue, Peter provides clear guidance at the beginning of the semester and introduces his flipped classroom approach gradually. He also stays in the classroom to offer support and gather feedback from students, helping to reduce their anxiety about the new learning method.

### What was the impact on student learning?

Before Peter adopted the flipped classroom model, Student Feedback Questionnaire (SFQ) scores were quite low, indicating dissatisfaction with the traditional teaching methods. However, after he switched to his flipped classroom model, where students review lecture materials at home and engage in interactive activities during class, the scores improved dramatically. The SFQ now stands at an impressive 4.5, reflecting a significant boost in student satisfaction and engagement.