

This project aims to enhance students' understanding of competition between firms using the flipped classroom approach. No doubt, eLearning is an effective teaching and learning approach, especially in courses with large enrolment and students from diverse background who have different learning needs. With the advancement of information technology, students can learn the basic content by watching video lectures and the precious class time can be used for activities that foster interaction and higher-order thinking.

Five micro-modules in the form of teaching animation are produced. They provide a conceptual framework and mathematical analyses for various aspects of competition between firms, such as the idea of imperfect market competition, oligopoly, strategic interaction and strategic moves.

While it is vital to support student's self-learning, it is equally important to facilitate high quality learning in the face-to-face class time. Thus, an interactive simulation game which is played during class time is developed. Guided by the lecturer, students are provided with a perfect opportunity to 'live' the strategy that they learnt in the teaching animations. Students apply the knowledge on strategic interactions between firms during the game when playing against each other, including forming expectation on each other's strategy choice, deriving optimal strategy, engaging in collusive behaviors, and considering other possible strategic moves, etc. After the in-class game, there is a debriefing session led by the lecturer to summarize and highlight the key take-away points.

Through the videos and interactive simulation game under the guidance of the lecturer, students not only understand the core concepts in market competition; but also learn how to apply the knowledge to analyze related issues in the real world.

The teaching animation and simulation game were used in DSME4040 Managerial Economics class in 2017 – 18. Student's feedback were collected and analysed. In general the project is very well received by students, with 100% of students agreed that this flipped classroom strategy with simulation game enhanced their understanding on the topics. 88% of students strongly agree or agree that it aroused their interest in the subject, and 92% of students strongly agree or agree that the classroom activity gave them an opportunity to apply the knowledge. Some highlight of students' comments:

*“The game certainly serves the purpose of helping me understand more the course content”*

*“It makes me realize the real decision-making process is much more complicated (than the textbook situation)”*

*“The game has shown many unpredictable and interesting phenomenon that we may actually face in reality. Such an understanding can help me to get prepared for the future challenges as I will know that nothing could be well predicted without paying any actually cost.”*