

IIDEL COMPETITION

INVENTION, INNOVATION & DESIGN ON E-LEARNING (IIDEL) COMPETITION

TO KICK START THE USE OF FLIPPED CLASSROOM IN PHYSICAL PHARMACY TEACHING: FROM THE PERSPECTIVE OF LOCAL CONTEXT IN MALAYSIA

Abstract

This article presents a facilitated customized flipped classroom designed for pharmacy education in Malaysia. The culture of Malaysian is one of the crucial determination on teaching and learning improvement. Due to the advancement of technology, the teachers/lecturers should apply suitable changes that suit the pace of local culture. This article reveal the impact of a customized designed flipped classroom of Malaysian on the learning effectiveness and cultural changes. By implementing flipped classroom, especially to the current digital natives, it will lead to independent learning, instill problem solving skill and encourage higher thinking order in meeting the demand of workforce in society. Innovation of the technology in education is laid in the fact of feasibility and ultimate outcome of effective learning. Many times, students claimed that time constraint is the main hurdle for their learning. Thus, the design of flipped classroom in this article is constructed systematically based on student learning time. Self-learning time is given before teacher conducted the collaborative interactive leaning sessions. The pre-class materials was designed with audio slide presentation prepared by a familiar software "power point 2013". Interactive sessions include E-learning portal of USM, quizzes using Kahoot!, and Q&A sessions were carried out in class. e feasability implementation of the Malaysian designed flipped classroom was assessment via qualitative and quantitative data. flipped classroom shall be future trend of teaching and learning in Malaysia.

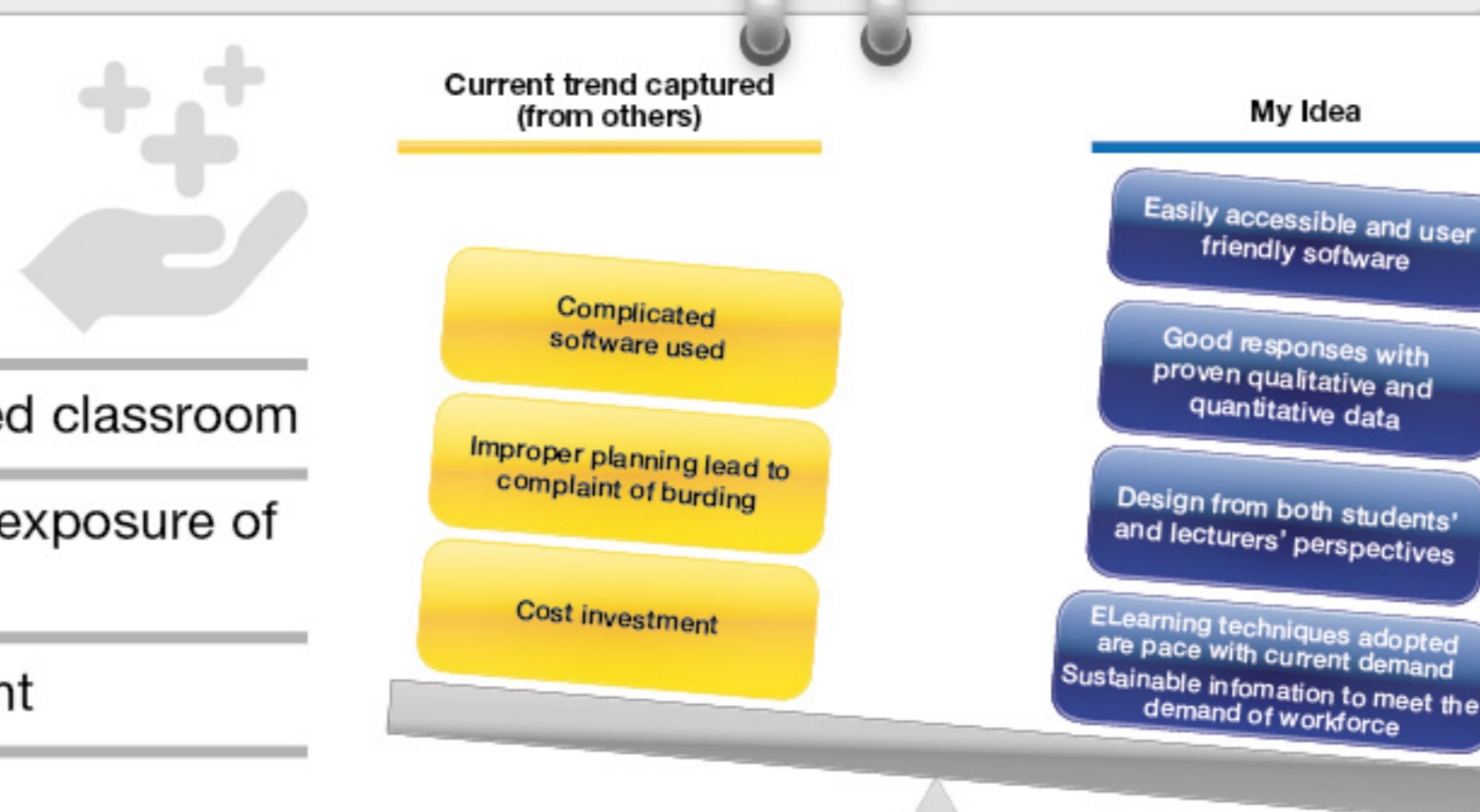
Objectives

- To start the used of flipped classroom in pharmacy education
- To improve existing flipped classroom setting for local context
- To investigate the hurdle of applying flipped classroom as e-learning strategies
- To promote self-regulated learning / independent learning through flipped classroom in teaching and learning culture of Malaysia



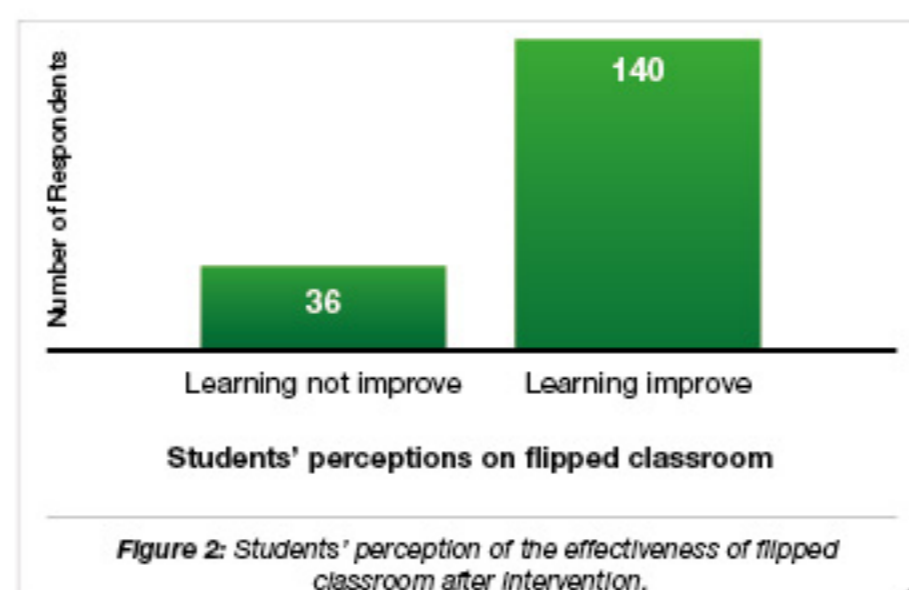
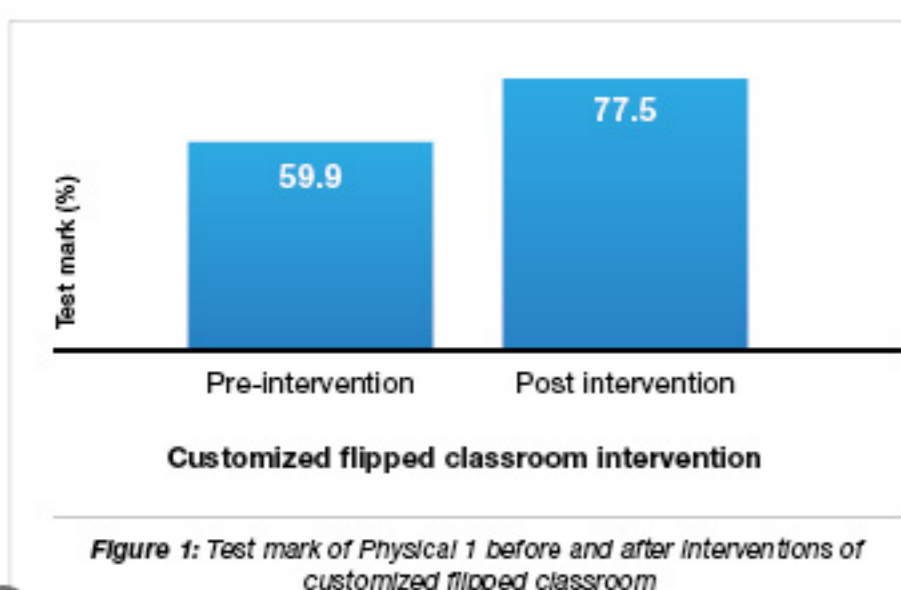
Value Added

- Introduce a user friendly technique among academician
- Reveal a locally suited designed of flipped classroom
- Impart positive impression among initial exposure of local student toward flipped
- Promote self-regulated learning in student
- Sharing of content globally



Usefulness

- Sustainable class content
- Repeatable/rewindd individually with student's pace
- Student centered learning
- Proven positive result qualitatively and quantitatively

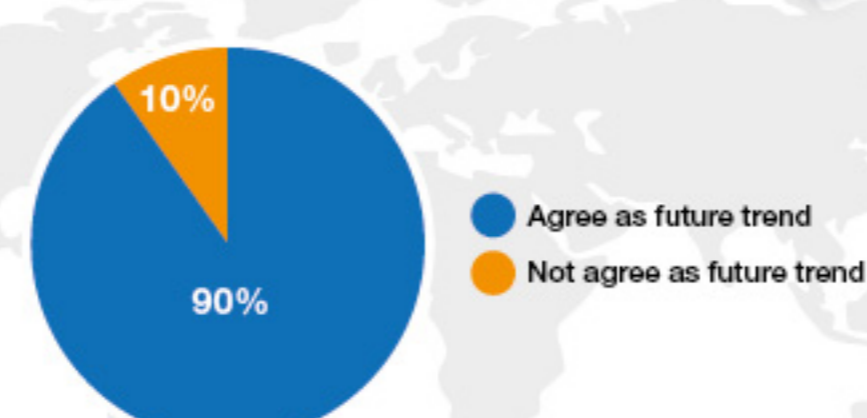


Recognition (qualitative data)

- "I like the way Dr. Chan explanation in the videos posted before"
- "Very good because she explains everything very well and i can replay it anytime :)"
- "I have no comment but Impress with the effort"
- "It is very interesting and helpful"
- "Dr. Chan's effort in making flip classroom is commendable"
- "Innovative. Very Effective. Excellent!"

Commercialisation Potential

- Intellectual properties
- Collaboration with IPTS for content sharing for course audit



Innovators Details

Dr. Chan Siok Yee are lecturer in Pharmaceutical Technology, School of Pharmaceutical Sciences, Universiti Sains Malaysia. She can be contacted at: sychan@usm.my

Innovators Photo





IIDEL COMPETITION

INVENTION, INNOVATION & DESIGN ON E-LEARNING (IIDEL) COMPETITION

VIDEO TUTORIALS AS A TOOL IN TEACHING FOR PRACTICAL SESSIONS OF DOSAGE FORM FORMULATIONS FOR PHARMACY STUDENTS

Abstract

This product is a series of videos prepared to enhance the learning and understanding of pharmacy students regarding pharmaceutical formulations. In the preparation of pharmaceutical products, technique is an important criterion that need to be mastered by the students. To improve students understanding and performance during practical sessions, an approach was taken to use video tutorials as a tool in teaching and learning processes. Three technical preparation videos of different pharmaceutical products were prepared (suspensions, emulsions and creams), and uploaded onto the USM E-Learning Portal for students viewing prior to the respective practical sessions. The videos that were produced detailed out the steps and technique in the preparations of pharmaceuticals and are structured into three parts - (1) introduction, (2) preparation and the techniques, and (3) packaging and labelling. In principle through the videos, students will learn and watch the demonstration in one-to-one manner and they may access and watch the videos multiple times before the practical sessions. These videos will also serve as a sustainable reference for students which may be referred to even after graduation and when they have joined the workforce. A survey conducted at the end of the semester showed that 96% of students agreed that the application of video has helped them to understand and perform well and even better, at their own pace.

Objectives

This presentation will showcase the application of video as a tool in teaching and learning for pharmacy students in the practical sessions of dosage form formulation.

The objectives of this application are:

- To enhance students' understanding and ability to master the skills and the techniques needed
- To evaluate students opinion on the application of video as a tool in teaching and learning



Value Added

The contents of the video may be validated by the instructors prior to the release of the video. This may ensure that the content provided is sufficient and accurate.

Students may observe the demonstration multiple times before the practical sessions.



Usefulness

The application of videos can help to improve students' ability to master the technique necessities. With the visual explanation and clear demonstrations, students are more confident to conduct the practical sessions and this reduces the rate of failure during product preparation and final examination



Commercialisation Potential

The application of this video may be expanded to the teaching and learning of dosage form formulation in pharmacy courses in other universities.



E-Learning

Recognition (Qualitative Data)

Recognitions documented from students' responses:

"I like the video for practical sessions because it simplifies learning and understanding."

"I like the demonstration video for practical, because it is more clear for me to know what I should do. I can also know what to expect from my product."



Innovators Details

Amirah Mohd Gazzali and Chan Siok Yee are lecturers in Pharmaceutical Technology, School of Pharmaceutical Sciences, Universiti Sains Malaysia. They can be contacted at: amirahmg@usm.my ; sychan@usm.my

Innovators Photo

