

# Using Flipped Classes to Enhance Face to Face Discussion in Engineering Labs

## Overview

### Summary

This case study describes the introduction of an online lesson in experimental engineering laboratory classes to facilitate the face-to-face discussion prior to the experimental activity.

### Context

Department of Mechanical and Aerospace Engineering

Faculty of Engineering

### Contact Details

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### Themes

Themes

## Rationale

By developing an online lesson with the different aspects related to the topic under study, students were more pro-active during the face-to face discussion prior to the experiment.

I have chosen this initiative due to the weak interaction of students observed when only the slides of the topic were uploaded in Myplace for students to check.

The online lesson is the first activity done in the lab, followed by the face-to face discussion, experimental data collection, online discussion forums, technical report and online quiz.

## Successes

Positive impact for students:

- Students were more proactive during the face-to-face discussion. The online lesson is mandatory before attending the lab. Any doubts were solved during the discussion but also it allowed me as the lecturer to challenge the students with deeper questions about the topic.
- Students start to get used to being quizzed in public and interact with academic staff and classmates without feeling frightened as the group is small (8 students)
- 90% of the students felt that the information provided in the online lesson was clear and effective.

## Lessons Learnt

This activity takes time to develop, however it is worth it. Different questions were incorporated in the different chapters of the lesson giving immediate feedback to the student regarding their understanding in the topic.

I need to incorporate captions to the videos to make the lesson inclusive for all participants.

## Challenges

Making the lesson easy to digest. Keeping it simple and not overloaded.

## Scalability

The activity is 100% scalable and it could be done for each of the topics we teach and use the contact time just for discussion

# Suggestions for Transferability

I recommend this type of activity in any class as it will allow to go deeper in the topic during contact time sessions.

## Attachments

NA

File

Modified 

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No files shared here yet.