

# **Using Sports Coaching as a Cultural Reference to Help International Students Understand Flipped Classroom**

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# Known Benefits of Active Learning

## ACTIVE LEARNING

INCREASED ACADEMIC PERFORMANCE

INCREASED ENGAGEMENT

INCLUSIVE PRACTICES

- 1) Freeman, S., and co-workers (2014). *Active learning increases student performance in science, engineering, and mathematics*. Proceedings of the National Academy of Sciences, 111(23), 8410-8415.
- 2) Gilboy, M. B. and co-workers (2015). *Enhancing student engagement using the flipped classroom*. Journal of Nutrition Education and Behavior, 47(1), 109-114.

# Student Resistance to Active Learning

## ACTIVE LEARNING

INCREASED ACADEMIC PERFORMANCE

INCREASED ENGAGEMENT

INCLUSIVE PRACTICES

## STUDENT RESISTANCE

LACK OF UNDERSTANDING OF ACTIVE LEARNING

ADAPTED TO TRADITIONAL TEACHING  
(TEACHER-CENTRED PRACTICES)

LOWER ENGAGEMENT  
(AND ACADEMIC PERFORMANCE)

**These issues are more pronounced in international students**

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Engagement paradox in active learning. Engage students with active learning so you can increase engagement?

# Can We Make Active Learning Relatable?

**ACTIVE LEARNING + SPORTS CULTURE REFERENCES**

**ACTIVE LEARNING IN A CONTEXT THE STUDENTS CAN UNDERSTAND**

**USE OF COMMON 'SPORTS LANGUAGE' THAT PARALELS ACTIVE LEARNING**

**WORK ON INDIVIDUAL AND/OR TEAM SKILLS (E.G. TENNIS VS FOOTBALL)**

# Tennis Coaching in Flipped Classroom

TRADITIONAL



LIVE LECTURE



SELF-PRACTICE



ASSESSMENT

FLIPPED



EDUCATIONAL MATERIALS



IN-CLASS WORKSHOP (COACHING SESSION)



ASSESSMENT

# Tennis Coaching in Flipped Classroom

TRADITIONAL



LIVE LECTURE



SELF-PRACTICE



ASSESSMENT



IT IS MORE DIFFICULT TO WIN WIMBLEDON IF YOU DON'T TRAIN WITH YOUR COACH

FLIPPED



EDUCATIONAL MATERIALS



IN-CLASS WORKSHOP (COACHING SESSION)



ASSESSMENT





# Tennis Coaching in Flipped Classroom

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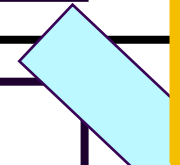
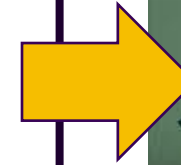
IN-CLASS WORKSHOP (COACHING SESSION)



ASSESSMENT



TARGET LOW ACHIEVERS AND DISADVANTAGED STUDENTS

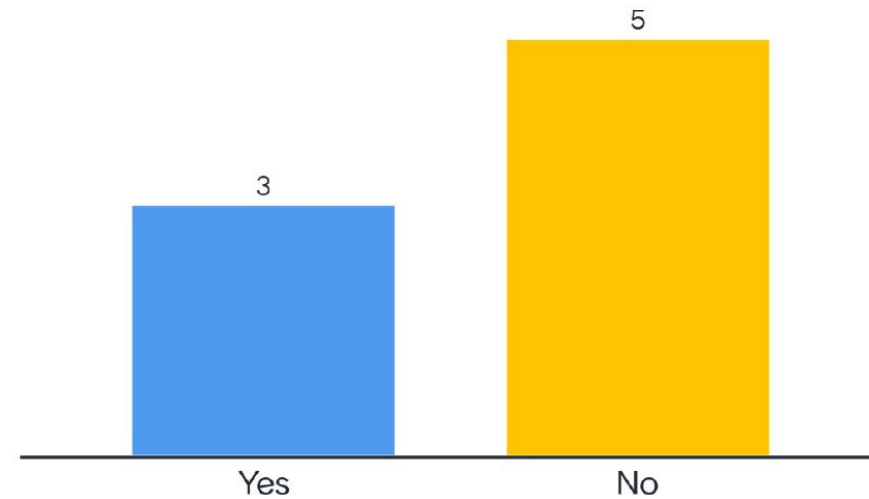


# Preliminary Results

- Cohort of 11 student international students in our MSc in Chemical Sustainability

Initial Survey Introductory Lecture  
8 answers out of 11 students

Have you ever heard of Flipped Classroom?

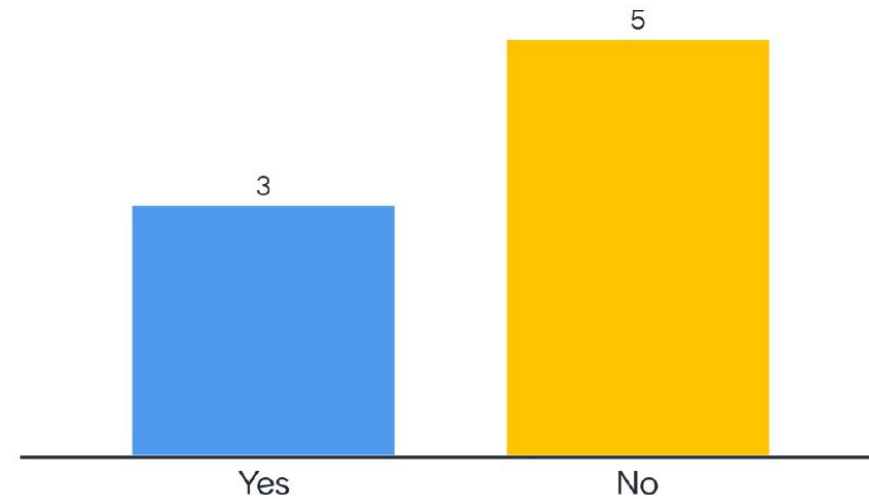


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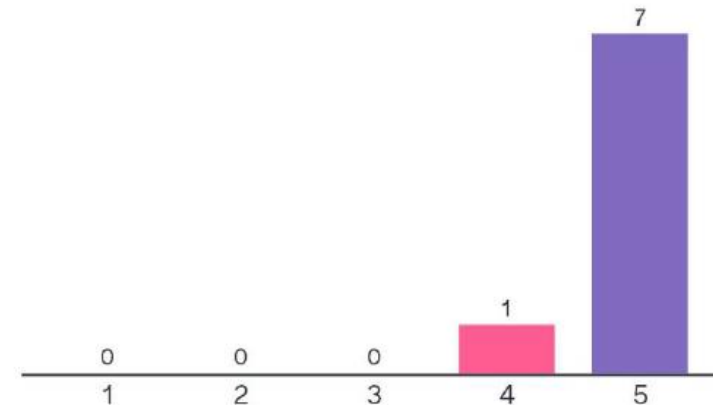
**HAD NOT STUDIED  
ABROAD BEFORE**

# Preliminary Results

- Cohort of 11 student international students in our MSc in Chemical Sustainability

End of Module Survey  
8 answers out of 11 students

I understand the method of teaching used in this topic: Flipped Classroom

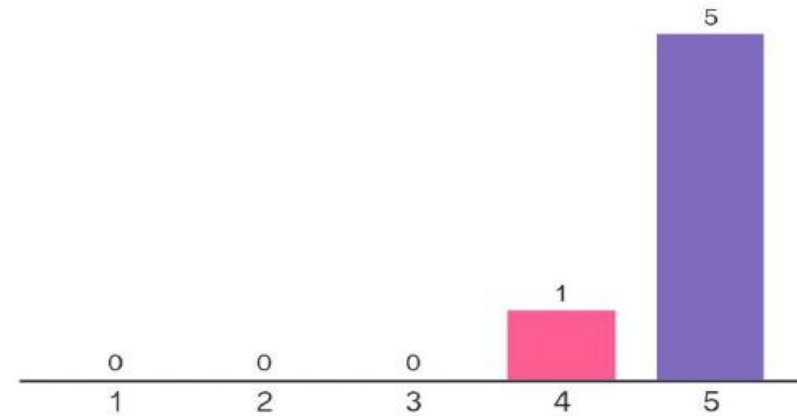


# Preliminary Results

- Cohort of 11 student international students in our MSc in Chemical Sustainability

End of Module Survey  
6 answers out of 11 students

The comparison with sports coaching has helped me understand Flipped Classroom



# Students' Feedback

Flipped teaching was useful as we could review the lectures in the comfort of our home and according to our schedule. The workshops were also relevant to the assessment and to real-life scenarios.

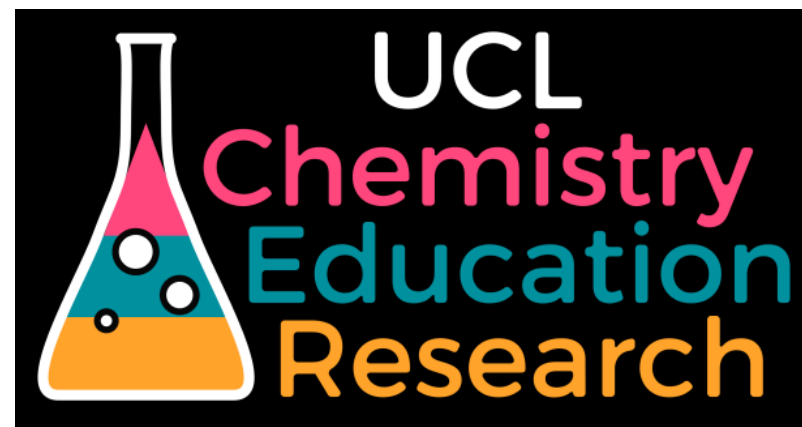
The course design is very user-friendly, as it allows students to self-study at home at appropriate times, and important knowledge points of this course are emphasized and applied in the workshop

I like the idea of the flipped classroom. I can pause the videos and have time to digest the information.

Clear video and slides help me gain a brief and extensive understanding of biomass. The workshop sheets focuses on real productions, making students involved

I like the length of the lectures, I like short videos with high volume of knowledge. Thank you for preparing the videos nicely with subtitles.

# Thanks for your kind attention!



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