

Aspects of the flipped lecture

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Introduction

The material in this presentation is based on that given by various presenters at a workshop on 21st February 2013. Slides of the individual presentations can be found at

http://www.heacademy.ac.uk/events/detail/2013/21_Feb_HE_A_STEM_Lecturing_Sheffield_2013.





Traditional Lectures

Cashin (1985)

- Lectures can present large amounts of information.
- Lectures can be presented to large audiences.
- In lectures students are often passive because there is no mechanism to ensure that they are intellectually engaged with the material.
- Students' attention wanes quickly after fifteen to twenty five minutes.



New Approaches

The Flipped Lecture

Also known as the **inverted classroom**.

Two characteristics:

1. Information is delivered outside the classroom, often using technology.
2. Contact time is used in more creative and effective ways to achieve student learning.



Study packs

Study packs

Replace lectures with study packs supported by on-line assessment and feedback via Virtual Learning Environment (VLE)

22 lectures replaced by 22 study packs

Study packs include learning activities and are provided as hard copies and on VLE.

Each study pack supported by formative on-line assessment.

Contact time

Use the lecture time for more workshops to improve student engagement and their problem solving skills

1 workshop for each study pack.

Each workshop ended with summative MCQ quiz.



Recorded Lectures

Lecture Recordings

- 18 Organic chemistry lectures were recorded in Semester I.
- 5 students were unable to attend lectures full stop.
- All students were given access for revision.



Contact Time

Voting pads

Debates

Demonstrations

Context/problem based learning

Presentations

Open question and answer

Peer assessment



Self assessment exercises

Production and Implementation

- To ensure **active engagement** by students, the videos were produced as video mark schemes for a vacation 'homework' exercise.
- Students completed self-assessment of their own work, and reported feedback and reflections back to us.





Screencasts

Screencasts: Why?

Prime students for classes using pre-lectures.

Release contact time for more interactive learning activities.

As independent study tools for particularly challenging material.

Effective means of showing 'how to'.

As revision tools.

Useful for colleagues

Easily (?) produced using Camtasia software

<http://teachingchemistry.net/home/index.php/archives/267>



Just in time teaching using clickers

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