Flipped learning for first years: The key to successful engagement or disaster waiting to happen?

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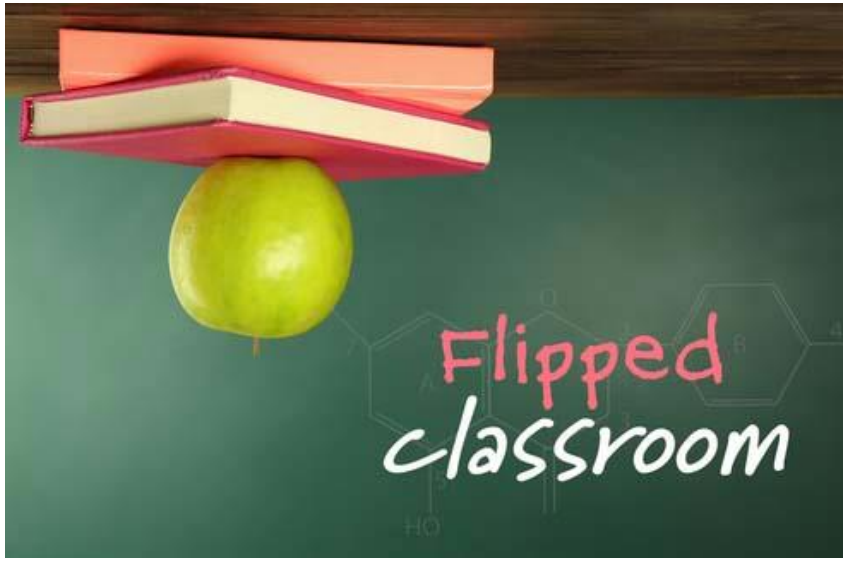
Presentation outline



- What is flipped learning
- What I did and why
- What worked and what didn’t
- Lessons moving forwards

Why flipped learning?

- First year of new BSc – still learning
- Real problem with level of understanding
- Academic results on this module – worst in whole year
- General problem with low moodle engagement
- New teaching fellow so motivated to innovate and learn
- Departmental strategy for more digital engagement

Flipped learning – what is it and why do we bother?

- Combination of online and in-class learning
- Take some of the ‘basic’ concepts and learn them online before class
- Allows more time in class to consolidate knowledge and concentrate on more difficult topics and higher levels of understanding
- Results from online quizzes incorporated into class
- Allows lecturer to see any gaps in knowledge and cover again with students in class
- Overall students should develop deeper knowledge and stronger skills

The process of ‘flipping’ a module

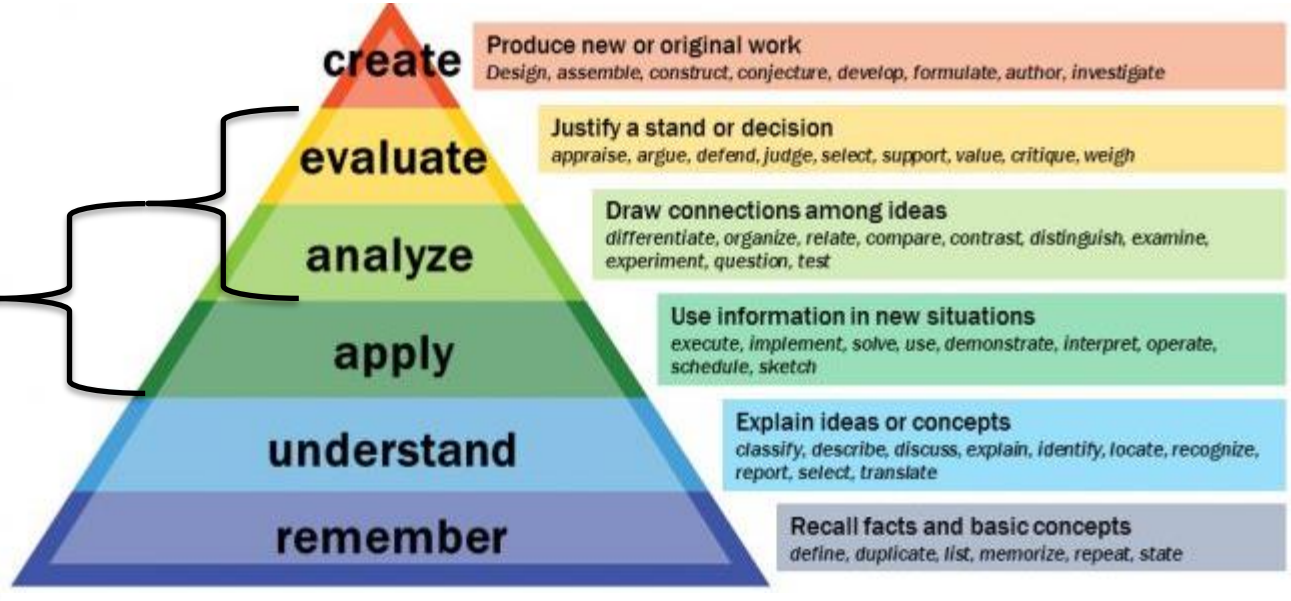
- Assess each activity and learning objective – where do they fall on Bloom’s taxonomy – therefore which can be ‘flipped’

- Focussing on teaching lower levels outside of class, allowing higher levels in class (and achieving ‘evaluation’ in seminars)

In seminars

In lectures

Flipped pre-class

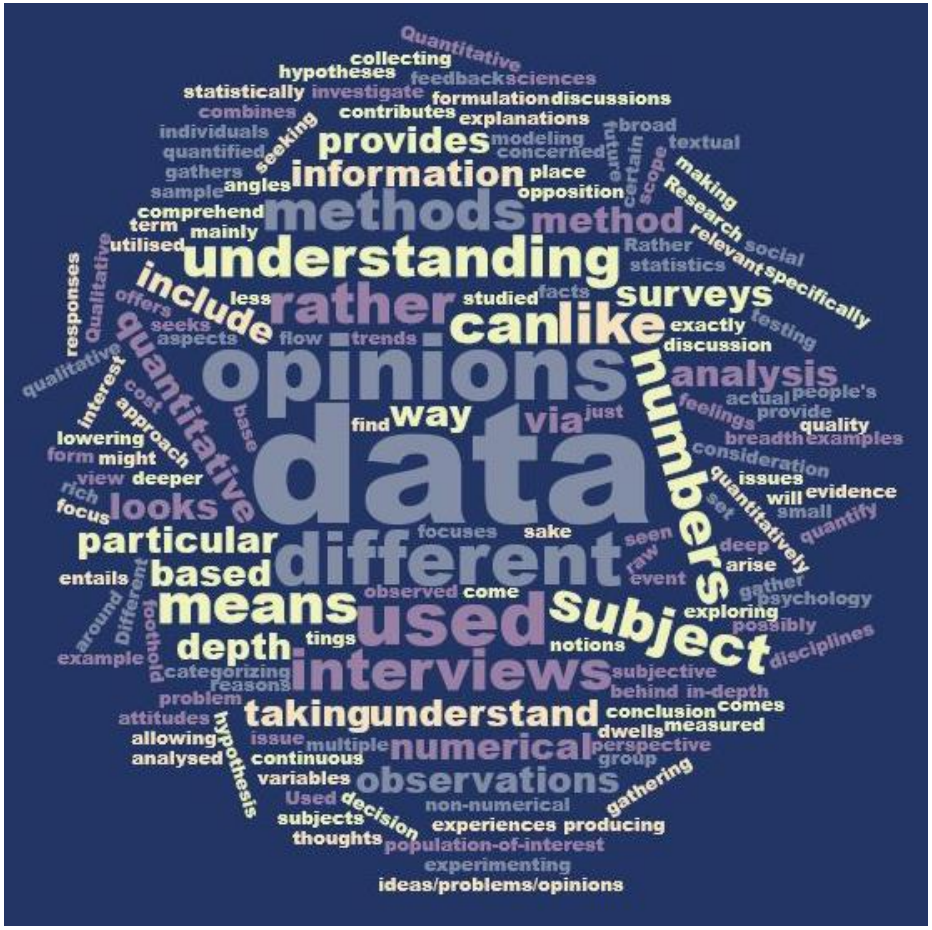


Flipping changes the whole module

- Focus is on evaluating existing activities and designing new flipped learning activities
- Lectures have to change – higher levels of understanding can be achieved and new activities and more interactivity built in
- Seminars become a chance to take the next step – analysing and evaluating rather than just applying
- Whole process took 6 months, and required constant tweaking throughout the module as well as weekly analysis of results
- Huge amount of effort

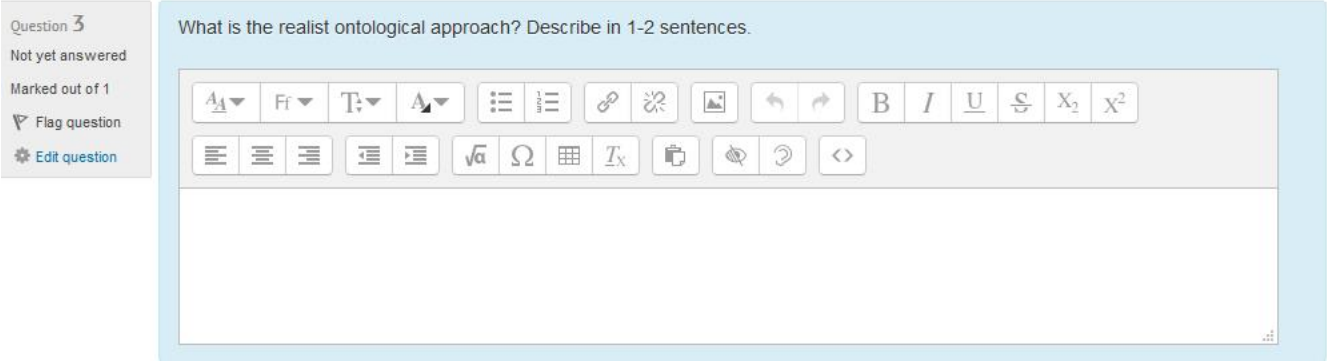
Designing flipped activities

- ‘Sighters’ – what do you think xyz is or xyz involves?



Designing flipped activities

- Pre-existing or newly created videos as packages of knowledge followed by consolidation activities (including ‘give examples of’)



Designing flipped activities

- Text resources with MCQs, drag and drops or free answers

Question 1

Not yet answered

Marked out of 1

Flag question

Edit question

Thinking about the way that coding is done in qualitative and quantitative research, see if you can match the statements to the type of research - qualitative or quantitative.

Coding is done throughout the research project. — Drag answer here

Revisiting the original coding is often not possible as original data isn't retained. — Drag answer here

Normally no new code categories are applied after an initial piloting stage. — Drag answer here

Qualitative research.

Quantitative research.

Designing flipped activities

- ‘Find out for yourself’ – definitions or matching exercises which require some outside research from students

Question 1

Answer saved

Marked out of 1

Flag question

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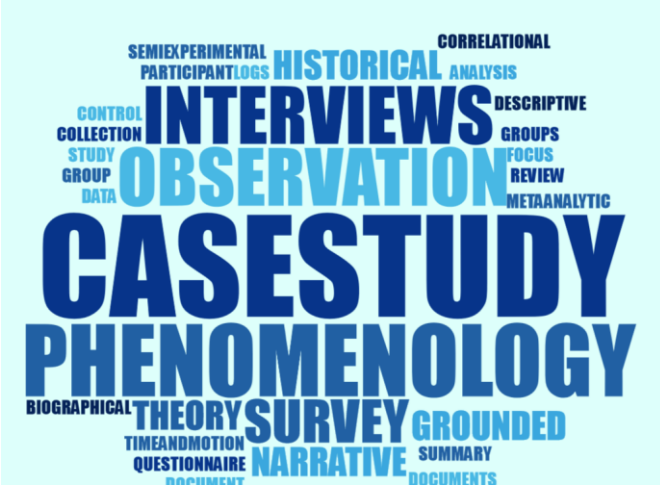
There are a number of criteria which traditional scientific research (normally quantitative) are measured against. See if you can match the criteria with the questions below.

Are you able to say that the researcher is not deliberately affecting the results of the study through their actions?	Minimising investigator bias
It is obvious to everyone what you are doing to the point that other people could replicate it if necessary?	Transparency
Are you constantly being as thorough and careful with the way you are conducting the research as possible?	Systematic rigour
Are we really measuring what we say or think that we are measuring?	Validity
If we did the research again and again in the same conditions with the same participants, would we get the same results?	Reliability
Are the results of this research applicable to similar participants or situations outside of your sample group?	Generalisability

Analysing flipped activities

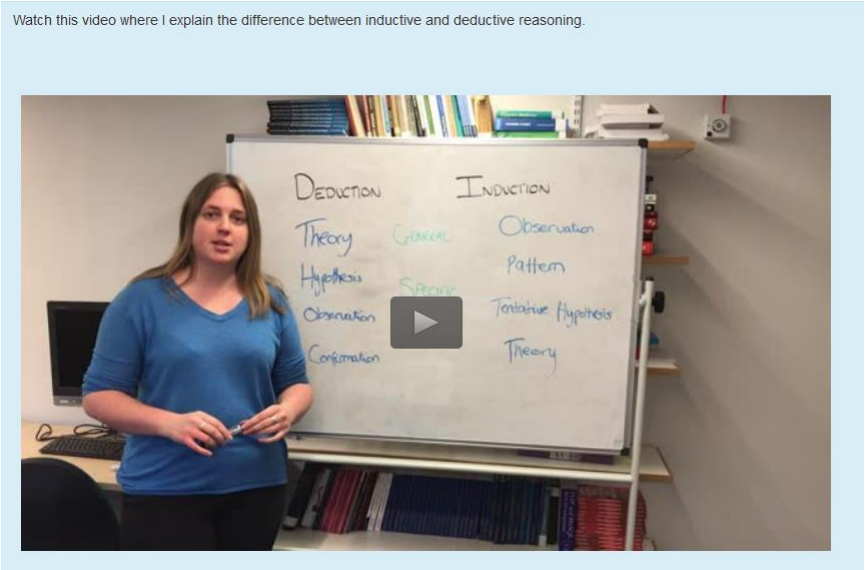
- Easy for MCQs and drag and drop
- More difficult for ‘what do you thinks’
- Even more difficult for ‘give examples of’
- Required much more time and effort than I anticipated
- Last minute changes to lectures if students haven’t understood

Incorporating flipped activities



- Visually with word clouds
- Anonymous examples of ‘what you thought’
- Analysis in class of good and bad examples
- Changes to lectures depending on level of understanding shown in flipped learning
- A lot of ‘remember when you learnt this’… some of which was only the previous day!

What worked well



- A variety of activities used
- Videos rather than texts
- Two sets of reminders for students
- Pushing the importance of flipped learning at the start of the course and weekly in class, showing them how lectures built on flipped activities every week
- Showing the students what they did well – every student contributed a good example at some point
- A chance to write down ‘I don’t know’

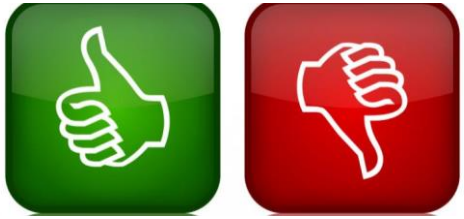
What didn’t work quite so well

- Some weeks were over-reliant on videos – a bit ‘samey’
- Some students would only complete MCQ or drag and drops, and skipped the open answer questions
- It took much more time to analyse and incorporate than I expected
- Memory loss by students – even if done the day before!
- Some students didn’t like being ‘babied’ – two reminders and then a warning if not completed (note: it was poor students who didn’t like it!)
- Some tasks were too easy for better students who lost focus – balance

Did it work for first years?

- A generation which EXPECTS a digital experience
- This led to a lack of engagement with reading resources though
- ‘The flip is all I need to do to pass’….
- Balance between multiple reminders and ‘hassling’
- Ensuring weekly engagement on moodle was important for some students who were struggling with engagement up to this point
- Good habits developed – will it spill over into continued engagement?

Lessons moving forwards – was it worth it?



- In all honesty – the jury is out!
- Initial results - 5/22 are working at a first class level at this point in the course, whereas last year it was 1/19
- Initial feedback from students (only ¼ have responded) = flipped approach useful, all who have responded = other modules should flip
- A phenomenal amount of work to totally redesign the course; learn the digital capability to do it; huge amount of work weekly to analyse, incorporate and change
- Now I have developed the skills, I can mentor others, as it is the future