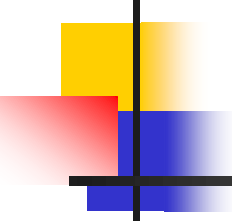




Active learning in Lectures

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*I hear, and I forget;
I see, and I remember;
I **do**, and I understand*

Confucious

Lecturing 15th Cent.



Lecturing 21st Cent.



Opening Question:



Take a moment to reflect on your experience with Lectures.

Come up 2 reasons why we lecture

- One negative one positive

Compare with a partner?



Lecturing to large groups

(Andreson 1990)

Faced with bigger classes and/or more classes, two responses are possible for lectures

- **Refinement**

better presentations

as theatre: enhance style, techniques, presentation skills & technology

- **Augmentation**

activity, interactivity

with student activity, feedback, dialogue, using other media



What is Active Learning

It is when students are engaged in more activities than just listening. They are involved in dialogue, debate, writing, problem - solving, reflecting as well as higher-order thinking.

(Bonwell & Eison 1991)

Active learning occurs when students are given the opportunity to interact with the subject matter of a course (Gibbs 2003)



Active Lecturing

Good teaching involves purposeful student activities so that a motivated student cannot avoid achieving the learning outcomes (Biggs 2003)

- Strategies that increase student engagement with material and are aligned with student learning outcomes
- Move from a Teacher - centred to a student centred approach

Why Active Learning ?

- Paradigm shift in thinking about how we learn
 - Educational and cognitive psychology
- Impossible to transmit knowledge
- Learners generate rather than receive knowledge





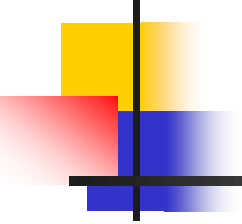
Why?

- Theory that derives from two basic assumptions:
 - (1) learning is by nature an active endeavor and
 - (2) different people learn in different ways
- (Meyers and Jones, 1993).



Constructivist principles

- Knowledge is constructed from experience
- Learning results from personal interpretation of knowledge
- Learning is an active process
- Learning is a collaborative process



Jean Piaget: we come to know the world
by building new experiences on old
experiences

Lev Vygotsky: students learn better by
engaging with “more capable others



Principles for good teaching

Good teaching

- Encourages student-staff contact
- Encourages cooperation among students
- Encourages active learning
- Gives prompt feedback
- Emphasises time on task
- Communicates high expectations
- Respects diverse talents and ways of learning



Holding attention in Lectures

- How long can students concentrate?
- It clearly depends on
- But using '20 minutes' is helpful
- Latest research

"Extensive exposure to television and video games may promote development of brain systems that scan and shift attention at the expense of those that focus attention."

Peter Jenson

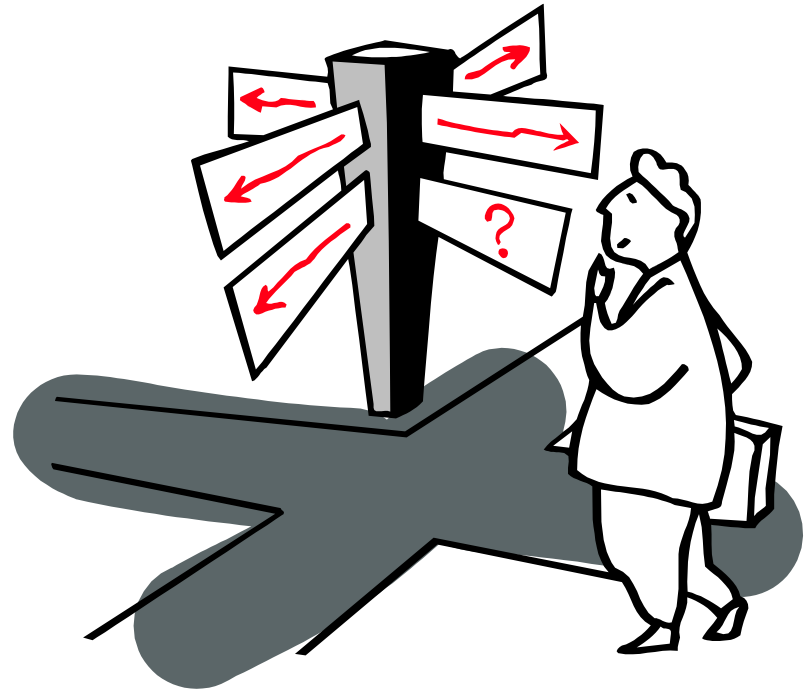
Why do Active Learning?

www.foundationcoalition.org



Arguments for 'active learning'

- To keep attention
- To check understanding
- Try things out in practice
- To compare different views
- Feedback to the lecturer
- Accommodate diversity
- Give the lecturer a minute
- etc



But what can we do?

- Active learning:
requires students to do tasks that
engage the cognitive processing needed for
deep understanding.



WRITE- Think-Pair-Share



Write down any ideas you can think of to engage students in lectures

Turn to a partner and share your knowledge.

Be prepared to report back to group 3 examples?

Example : Think – Pair - Share

Students are given time to think about a topic, turn to their neighbour for a short discussion, and then share the results with the rest of the class.

Can be used in any size
Classroom

Works well with any subject or
Topic

Useful in moving traditional
lectures to active lectures

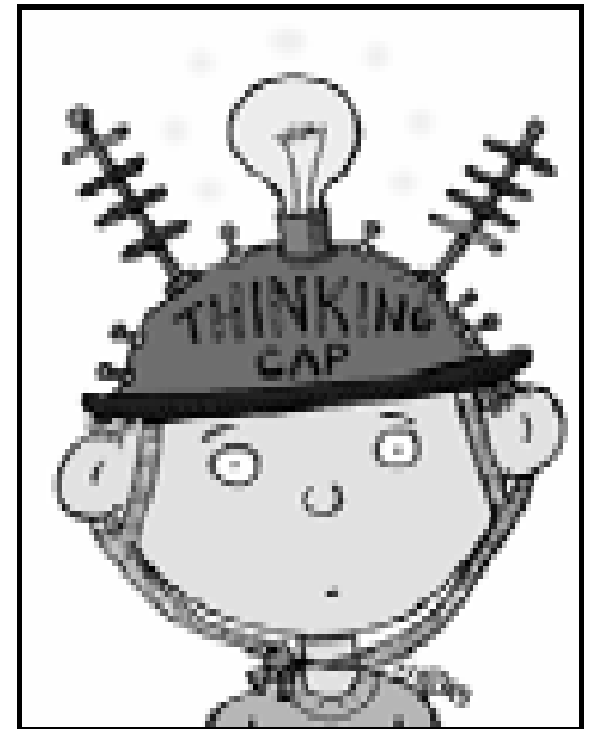


Brainstorm

A simple technique that can involve an entire class in a discussion

The lecturer introduces a topic or problem and then asks for student input.

Works well with pair-share





Brainstorm

What do you know about the ways
students learn?

Start with your clearest thoughts and then
move on to others those that are kind of
out there!

Two Minute Paper



- **With the person sitting next to you please decide what are the three most important aspects of the lecture so far and why?**

1.

2.

3.



Example 2.

In threes please consider

- 1. What symptoms do you see in a cat with a kidney infection?**
- 2. How might you test for this?**
- 3. What treatment would you recommend?**

NOTE CHECK



Take a few minutes to compare notes with a partner:

- Summarise the most important information.
- Identify (and clarify if possible) any sticking points.

Structuring Content



Develop your lecture moving from the :-

- Simple to Complex
- Big picture to Detail
- General to Specific examples
- Concrete to Abstract
- Beginning - Middle - End

Some other suggestions



- Buzz groups
- Mini-quizzes
- Deciding, e.g. voting
- Individual tasks
- Demonstrations
- Video & other Visuals
- Interactive handouts
- Instant summaries
- etc



The practicalities

- **Know why you want students to ‘do’ it.**



The practicalities

- Know **why** you want students to 'do' it.
- How will they work?
 - Alone or in pairs?
 - For how long? & when in the lecture?
- What will the end point be?
 - An answer? A decision? An example? etc
- Do you need to hear back from the students?
 - No? (I will show them the answer.)
- But if you do, how will you manage that?
 - Voting? Collected views? An OHT acetate?



Please design an interaction

- On the paper provided please present the instructions your students would see in a handout for an interactive task.
- Be prepared to explain the ‘practicalities’ of using your activity
- Act as critical friends for each other.



Quick re-cap

- To be clear about
 - Why you Lecturing?
 - What you are trying to achieve?
- Consider how you can
 - Use questions and tasks to encourage active learning
- Plan any interaction / activity thoughtfully
- Use a range of approaches to maximise participation e.g. interactive handouts
- Have a go!