**Possible Modifications to Traditional Lectures that Improve Student Learning**

**Fragmented Lecture**

Pauses for note reflection (Bonwell/Eison)

Pause for two minutes every 10-15 minutes

Students work in pairs during breaks to review and correct notes

Students did better than control on both immediate recall at the end of each class

 and on test at end of year to measure long term retention. Mean scores were

 two letter grades higher.

Change ups (Lyons)

Re-set 15 minute attention span with different activities

 For a longer break: shift to video clip, demonstration, or small group discussion

 on a question about what has been covered or ask them to use readings and

 lecture to come up with a hypothesis about what will occur in given situation

 For a shorter break: quick all-write: students asked to respond to a question in

 writing, then have several read answers and use to extend understanding. Or

 call on several students brief answers to questions, can allow them to pass

 (Whip Around/Pass)

Lecture-Discussion combination (Bligh)

 Start with general questions based on reading

 Teacher writes key points on board/overhead as students provide

 Teacher questions to get detail/depth

 Teacher adds information as appropriate in mini-lecture to spur new discussion

Guided lecture (Bonwell/Eison)

Provide objectives for lecture in advance, and then lecture for half the period while students simply listen

Students spend five minutes writing down all they can remember from lecture

Students in small groups reconstruct the lecture conceptually

Instructor answers questions/clarifies

Students end with better notes and more ability to use the material

**Checking for Understanding**

If asking for questions, wait longer. (Sviniki)

It takes a minimum of six seconds for a good student who has kept up with the lecture to review notes and formulate a question.

Classroom Assessment Techniques (Angelo/Cross)

“Minute papers” are the simplest form of CATs. At end of class, ask students to write for

 2-3 minutes on “what was the most important point,” or “what is still unclear to me.”

 Collect and use to start next class as appropriate.

End of lecture quizzes (BonwellfEison)

Students asked to take a short exam after lecture retained twice as much

 information after eight weeks as control group.

Short Summaries (Sviniki)

Pause in lecture, have students write a one or two sentence summary of what has

 been presented, ask one or two to read out loud to check for comprehension.

Whole Class Questions (Lyons)

Ask the entire class a question based on point made in lecture; ask for answer

 from all via hands raised or clickers

**Generating Better Notes**

Limit what they need to copy (Race)

Keep them focused on key issues by providing handouts rather than having them copy complicated material from power point, overheads, or board

Provide outlines (deWinstanley/Bjork, Bligh)

Helps them see key points; too much detail is counterproductive

Once they understand idea, force them to produce their own outlines

Teach Note Taking (Race)

Show them notes you would take on a portion of your lecture

Help them understand the underlying organizational structure

Ask to see their notes

Guided Notes (Heward)

Instructor generated notes that provide background information and cues in the

 form of blank spaces to insert key facts/concepts and answers to questions.

 Produces better notes, more questions in class, and higher grades.

 Encourages faculty to prepare more carefully and to stay on task.

**Better Technique**

Use of Visuals (Lyons)

Can enhance learning by providing visual cues for mental organization through

 power point or writing key points on board; beware of making learning harder

 by distracting attention and/or providing meaningless stimuli (for example,

 fancy power point).

Conclusions (Race)

Clear conclusions/summaries reinforce and clarify message

Place lecture in context (Race)

Remind students of how this material connects with what they learned earlier and how it will fit with what comes later.

Watch student body language (Lyons)

If they are tuning out, find out why (they don’t understand, the lecture is too

 elementary, you are digressing), and fix.

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