Teaching a Class Upside Down With Camtasia and Clickers

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Be Nice

I have invested all of my self-esteem in this PowerPoint presentation.

It is all that I am and all that I will be. It is a digital reckoning of my value.

Did they catch the chimp who made your slides?

Ow. Ow. Ow.

Wise garbage man, tell me why PowerPoint slides are so boring.

PowerPoint is a lot like garbage; it's only delicious in small doses. Too much can kill you.

That analogy only works for flies.

Ooh! Look who thinks he's better than flies.
Upside Down Classes

What is an upside down class?
A class where a majority of the lecturing is done outside of the classroom; i.e. on-line.

Why bother?
This frees you up to try different things in the classroom like active learning, discussions, etc.

What do you need to teach an upside down class?
You need 3 main things 1) A student response system, 2) Lectures on-line, and 3) Some learning activities you have been wanting to try.

From the Chronicle of Higher Education

“'Teach Naked' Effort Strips Computers From Classrooms”
by Jeffrey Young
“When Computers Leave Classrooms, So Does Boredom”

http://chronicle.com/article/Teach-Naked-Effort-Strips/47398/
Structure of an Upside Down Classes

- Before class students are expected to go on-line and view lectures.
- At the start of class the students have a quiz on the important topics using clickers.
- Based on quiz results there is some lecture on what topics students did poorly on.
- Then some active learning activities are used.
- Sometimes the activities are used during the lecture portion.

On-line Lectures

- On-line lectures were recorded when the class was taught previously.
- Use Camtasia Studio.
Camtasia Studio is a screen video capture program published by TechSmith. Camtasia is user-friendly, and is one of the better known screen-recording applications that allows almost anything to be recorded on the computer screen.

Tools of the Trade

- Tripod and Video Camera
- Wireless Mic
- Digital Voice Recorder
- Tablet Computer
- Web Cam
Setting Up a Lecture for the Web

On-line Lectures

Dr. Charles Johnson

Charles

Luck
Camtasia Crates Files for Podcasts

Once the podcast file is created, you need a place to store it and enough bandwidth to allow students to download it.

University System of Georgia Podcasting Service

Free storage and bandwidth from USG.

http://podcasting.gcsu.edu/
Students Use It

**Total Bytes Served Per Channel**

<table>
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<tr>
<th>Byte Served By Podcasting Channels</th>
<th>Owner</th>
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**Top 10 Podcasting Channels**

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<th>Podcasting Channel Title</th>
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<tr>
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<td>Introduction Physics Video Podcast</td>
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<td>Physical Science for Teachers Video Podcast</td>
<td>43</td>
</tr>
<tr>
<td>Talks</td>
<td>10</td>
</tr>
</tbody>
</table>

**PRS or Clickers**

Personal Response Systems (PRS) use remotes to allow students to anonymously log answers to questions into a classroom computer.
Why use PRS?

- Allows you to quickly quiz the class.
- Saves time grading
- Students get instant feedback
- Allows you to see what topics to spend more time on.
- Can use it as a jumping off point for mini lectures.

Types of PRS

**RF (Radio Frequencies)**

Pros:
- Can do more than multiple choice questions
- The systems can process over 500 responses per second,
- No limit to the number of remotes that can be used.
- 2.4Ghz band

**IR (Infrared)**

Pros:
- The IR system provides superior security
- line-of-sight
- The IR system is expandable; Base units can be “daisy chained” together
InterWrite PRS

http://www.gtcocalcomp.com/interwriteprs.htm

A 50-seat room costs around $3,000

Hyper-Interactive Teaching Technology

http://www.h-itt.com/

Hyper-Interactive Teaching Technology has the fastest report collection time. Also less expensive; about $1,500 for a 50-seat setup.
Turning Technologies offers a variety of response technology solutions to meet the specific needs of your audience and environment.

They have a hand-held device that does not need a computer to use.

Smartroom Learning Solutions

Beyond Question from Smartroom Learning Solutions comes with nice carrying bag. Costs around $2,000 for a 50-seat room.

http://www.smartroom.com/index.html
Examples of "active learning" activities include:

- A **class discussion** – held in person or in an online environment.
- A **think-pair-share** activity – when learners take a minute to ponder the previous lesson, later to discuss it with one or more of their peers, finally to share it with the class as **part** of a formal discussion.
- A **short written exercise** – is the "one minute paper." This is a good way to review materials.