Flipping the classroom: Strategies for making the most of in-class time

Center for Teaching and Learning, Nov 2011
Welcome and Introductions

- Our goal... one good idea
- Breadth vs. depth today
What happens when, and why?

- What do students do…
  - To prepare for class?
  - during class?
  - to follow-up after class?
- What does the instructor do during each of these times?

General Chemistry example

<table>
<thead>
<tr>
<th></th>
<th>Before class</th>
<th>During class</th>
<th>After class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>Nothing/assigned reading</td>
<td>Taking notes</td>
<td>Assigned reading from before class</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Asking questions (some students)</td>
<td>Completing assigned homework problems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doing some practice problems in groups</td>
<td>Studying for exam</td>
</tr>
<tr>
<td>Instructor</td>
<td>Preparing lecture notes</td>
<td>Lecturing</td>
<td>Writing exam</td>
</tr>
<tr>
<td></td>
<td>Preparing problems for students to do</td>
<td>Answering questions</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monitoring problem solving session</td>
<td></td>
</tr>
</tbody>
</table>
Is this the right distribution to support student learning?
Assumptions

- Application matters
- Value in being “stuck”
- Instructor and peers are important sources of insight and feedback
Seven Principles of Good Practice for Undergraduate Education

- encourages contact between students and faculty,
- develops reciprocity and cooperation among students,
- encourages active learning,
- gives prompt feedback,
- emphasizes time on task,
- communicates high expectations,
- and respects diverse talents and ways of learning.

http://www2.honolulu.hawaii.edu/facdev/guidebk/teachtip/7princip.htm
What is “flipping the classroom”? 

- http://www.youtube.com/watch?v=2H4RkudFzlc&feature=related
The “flipped” or “inverted” class is

- A means to INCREASE interaction and **contact time** between students and teacher.

- An environment in which students take **responsibility for their own learning**.

- A classroom with an intentional/flexible balance of "sage on the stage” and "**guide** on the side".

- A **blending** of direct instruction with constructivist/active learning.

- A class where content is permanently **archived** for review or remediation.

- A class where all students are **engaged** in their learning.

Case Study

- Child and Adolescent Psychology course

- Look particularly at the **final** course learning outcome:
  - apply psychological concepts to decision-making regarding interventions with children.

- What might be flipped in this course? To what end?

- Identify a specific (if hypothetical) scenario
  - Where/when do students get conceptual information/content?
  - Where/when do students apply their knowledge and understanding?
Holding students accountable

- Brainstorm...
Ideas for holding students accountable

- Team-Based Learning model (quiz/group quiz)
  - IF-AT tests

- Clickers

- Paper/pencil quizzes

- Assignment due at beginning of class
  - e.g., Submit questions

- Classroom Assessment Techniques (CATs)
  - e.g., minute paper

- Blackboard quiz

- Reflective writing/blogs

Important: Don’t reteach material (from reading, recorded lecture)
What might be “flipped”/inverted in one of YOUR courses?

What in *your* course constitutes the work that students must do to really master the material?

What kind of learning do you want students to work on while they are with you? With peers?

Are there higher order skills you’d like to support?

Flip the whole class? Part? Frequency?
Tools/Strategies for out-of-class materials

- Reading Assignments

- Others’ recorded lectures:
  - Google “Open Courseware”
  - TED
  - YouTube
  - Kahn Academy

- Your own recorded lectures
  - Software tools: Jing, Audacity, Camtasia, Echo360 Personal Capture, etc.
  - Mobile devices and apps
  - Portable video cameras and audio recorders
Example of “video” made with Camtasia
In-class work

- USE the reading/video material in a direct and obvious way
- Be careful of work “creep”… expanding the work students must do for the course

- OPTIONS
  - Students complete homework – work independently and/or within a group
  - Team-based projects/assignments
  - Group activities designed for class
  - Use full-class report outs

- Consider structuring groups intentionally
  - Roles
  - heterogeneous
In-class Facilitation

- Instructor creates the learning environment
  - Identifies learning objectives for the day
  - Develops and explains the activity
  - Defines expected behaviors and criteria for success
  - Establishes organization (i.e. goal/reward structure, team structure, time structure).

- Instructor supports the learning process
  - Monitors progress of the groups/individuals
  - Responds to questions/guide students to answers
  - Ask pre-emptive questions of the class, groups or individuals to check understanding
  - Manages report-outs from groups (answers, major points, processes used)
  - Provides closure to the lesson

- Need a strategy to move between student-centered work and instructor centered direction/information
Where might you begin?

- Is there particular content/time in the semester that would work well?
- What do you need to learn more about?
- Are there tech tools you need to learn? (workshops to take? 😊)

- What is your one good idea?
- What is your next step?