The Classroom Flip:
Becoming the Guide by the Side

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Summary Slide

• The “Classroom Flip” Model
• The Ohio Model for Institutional Collaboration
• Faculty & Student Assessment of “Flipped” Classes
The “Classroom Flip” Model

Faculty Frustrations

• Students are unprepared for class
• How do I get my students to spend enough time in the class material?
• How do I get them to read the text?
• How do I help them apply the content?
• If I use active learning strategies, how do I get in all the content?
My Frustration

- Students don’t seem to be “getting it”
- The “tyranny of the lecture”

Two Converging Trends

Change in Educational Philosophy

From the “Sage on the stage to the Guide by the Side.”
Two Converging Trends

Change in Educational Philosophy

Introduction of New Instructional Technologies

The question

• How can college professors teaching face-to-face courses use these technologies to transform their classrooms?
A suggested answer

Bring the pedagogical and technological trends together

Change teaching and learning in the traditional undergraduate classroom

Assumption

• New information technologies
  – provide lecture content
  – open up time for active learning
Goals

• Find an approach to move from “sage” to “guide”
• Reduce time spent on lecturing
• Open up class time for active learning
• Focus more on understanding and application than on recall . . .
• . . . while not sacrificing presentation of the factual base
• Provide students with more control over their own learning
Goals

- Give students a greater sense of responsibility for their own learning
- Provide students with more opportunities to learn from their peers

The Classroom Flip

- Move lecture material out of the classroom through online delivery
- Extend conversation out of class through threaded discussion
- Move “homework” into the classroom where faculty can serve as guide
- Use opened up time for application and practice
Enabling Technologies

• Course Management Systems
  – “Lectures”
  – Threaded discussion
  – Quizzes
  – Student Presentations

• “Ad hoc” Solutions

Classroom Changes

• Time for Active Learning
• Structure for class:
  – Clarify
  – Expand
  – Apply
  – Practice
Online “Lectures”

• Features
  – Web pages delivered in CMS
  – Multiple media sources available
  – Student use is recorded
  – Can link to
    • Objectives
    • Student notes
    • Discussion area

Online “Lectures”

• Benefits
  – Not restrained by class time
  – Can link to extra resources
  – Statistics on student use available
  – Student accountability
  – Increased time in-class for application and discussion
Online “Lectures”

• Examples from
  – Communication in the Information Age
  – Mass Media Law & Regulation
  – Graphic Design for Interactive Multimedia

In-Class Discussion
Online Discussion

• Types of Discussion
  – Synchronous (Chat Rooms)
  – Asynchronous (Threaded Discussion)

• Features
  – Automatically created by CMS
  – Messages archived
  – Public/Private
  – With names/Anonymous
Online Discussion

• Benefits
  – 100% participation
  – “Voice” to the silent students
  – Thoughtful, articulate responses
  – “Time on task” with content
  – Use for student presentations with Q&A
  – Transcript available for review

Online Discussion

• Example from
  – Communication in the Information Age
Online Quizzes

• Types of items:
  – True-False
  – Multiple Choice
  – Matching
  – Short Answer
  – Calculated
  – Paragraph Answer (Essay)

Online Quizzes

• Features
  – Set time available
  – Generate quiz from pool of questions
  – Automatic grading
  – Set feedback based upon response
  – Allow multiple attempts
Online Quizzes

- Benefits
  - Holds students accountable for reading
  - Saves class time
  - Provides immediate feedback
  - Can repeat for mastery
  - Can be used for practice tests

Student Presentation

- Features
  - Area for students to upload material
  - Can be divided into groups
Student Presentation

• Benefits
  – Place for introductory personal information
  – In-class presentation available for review
  – Place for posting student projects

Conclusions

• CMS provide an integrated environment for class enhancement
• Automatically generates features most desired by faculty
• Students gain familiarity with system
• Provides data on student use
• Benefits both in and out of the classroom
The Ohio Model for Institutional Collaboration
Institutional Collaboration

- The “Ohio Model”
- OFIC/Ameritech Faculty Development Technology Program
  - Identify common needs in instructional technology
  - Use our own resources for development sessions
  - Rapid spread of skills to campuses

2000 Needs

- What do faculty need to know about the use of technology for teaching and learning?
  1. Effective Pedagogical Knowledge of Digital Practices
  2. Examples of Effective Practice
  3. Knowledge of Digital Tools' Possibilities
2000 Needs

- What do independent colleges need to do to enable faculty to develop and use this expertise with their students?
  1. Pedagogical Support
  2. Tech Support
  3. Faculty Development Program
  4. IT Stuff That Works (Infrastructure)

Solutions

- Regional Workshops
  - Hosted by our own schools – institutions facing the same constraints
  - Sessions led by faculty “just like me”
  - Goal: Get faculty started on projects that can be used in the next term
Solutions

• “Effective Practices”
  – Identify effective practices in the use for IT for teaching and learning
  – Provide a “clearing house” for research on those practices

• www.imowa.org
Solutions

- Support for Instructional Support Mentors
- CMS Curriculum
  - Start with effective pedagogy
  - Explicitly link to ways in which a CMS can support the pedagogy

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CMS Curriculum

Instructional Need

\[\text{Instructional Strategy} \rightarrow \text{CMS Support for Strategy} \rightarrow \text{Faculty Development/Training Needs}\]
CMS Curriculum

<table>
<thead>
<tr>
<th>Need</th>
<th>Strategy</th>
<th>CMS Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>My student’s aren’t prepared for class discussion because they haven’t kept up with the reading.</td>
<td>Use more frequent quizzes over the text readings.</td>
<td>Online quizzes can be set up to be made available right up to the time class starts and then turn off. Students must read the material &amp; take the quiz before class.</td>
</tr>
<tr>
<td>Encourage their engagement with the readings through discussion of key points with others in the class.</td>
<td>Set up discussion groups for the class in the Threaded Discussion area in which regular discussion of text reading can be done.</td>
<td></td>
</tr>
</tbody>
</table>

Resources

- **imowa site**
  - http://www.imowa.org/
- **Sample CMS Site/Handout**
  - http://www.cedarville.edu:8905/
  - Click on my WebCT
  - User Name: student0x (x=1-7)
  - Password: student0x (x=1-7)
  - Assignment Dropbox
Faculty & Student Assessment of “Flipped” Classes
Faculty Assessment

- Cheryl Irish
  - Special Education
  - Small class (10)
  - Used online discussion
- Susan Warner
  - Marriage and the Family
  - Large lecture class (58)
  - Used online discussion

“I can now use class time for discussions and learning activities I didn’t have time for before. I was frustrated with the short amounts of time I had in the past for these important experiences, but with WebCT for the concrete activities, we’re able to focus on higher levels of learning in class.”
Cheryl Irish
Education

“WebCT provides me with a mechanism for holding students accountable for reading assignments. They read the assignment and then take quizzes and participate in small group discussions over the reading material while in WebCT. This leaves class time for expanding on the topics and discussing them at a deeper level because they have been prepared before coming to class.”

Susan Warner
Sociology

“I was concerned my students have an outlet to be able to discuss relevant issues that surfaced during class discussion. So I divided them into group of approximately eight students. Each group had its own private bulletin board where they could post their reactions. They would often talk about their own families in ways they would not in class.”
Student Assessment

• Survey of Six Web-enhanced Classes
  – Range of Sizes: 9-58
  – Mean Class Size: 21.3
  – Students in-tab: 128
• Survey of Four Lecture Classes
  – Range of Sizes: 13-33
  – Mean Class Size: 22
  – Students in-tab: 88

Student Assessment

Statements with strongest positive ratings
(Strongly Agree = 1)

The class encouraged me to spend more time collaborating with other students than I typically do in other classes. (Graphic Design 1.3; All Web-enhanced 2.73; Lecture 3.23, p<.002)

I feel I learned from my fellow students through their presentations and comments in class discussion. (Graphic Design 1.7; Comm in the Info Age 2.3; All Web-enhanced 2.05; Lecture 2.8, p<.003)
Student Assessment

Statements with strongest positive ratings
(Strongly Agree = 1)

**Goal:** Focus on Understanding and Application

Class discussion encouraged critical thinking.
(Graphic Design 1.4; Comm in the Info Age 1.8;
All Web-enhanced 2.08, Lecture 2.14, p< .246)

In-class time was spent more in discussing implications than in presenting facts.
(Graphic Design 1.8; Comm in the Info Age 1.9;
All Web-enhanced 1.89, Lecture 3.1, p< .000)

Student Assessment

Statements with strongest positive ratings
(Strongly Agree = 1)

**Goal:** Student control of learning

The [online/class] resources provided me with more control over my own learning.
(Graphic Design 1.8;
All Web-enhanced 2.64, Lecture 2.02, p< .002)
Student Assessment

Student Assessment
Statements with strongest positive ratings
(Strongly Agree = 1)

**Goal:** Student sense of responsibility for learning

I was more responsible for my own learning in this class compared with others.
(Comm in the Info Age 1.8; All Web-enhanced 2.10, Lecture 2.69, p<.000)

Student Assessment

Student Assessment
Statements with strongest positive ratings
(Strongly Agree = 1)

**Goal:** From sage to guide

The online material and in-class discussion made the course more of a forum than a lecture.
(Comm in the Info Age 2.1; All Web-enhanced 2.05, Lecture 3.3, p<.000)