Developing a Community of Practice through Interdisciplinary Research

WELCOME

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Learning Objectives

- Describe the importance of using a Community of Practice (CoP) model when developing online faculty development.
- Describe the methodology used by the researchers to conduct their study of flipped classroom design.
- Discuss the preliminary results of the study and their implications.

Context

Wenger’s Community of Practice model

Move away from a technical approach to training and toward the development of reflective practitioners


Statewide affiliation with **Quality Matters**

Center for Online Learning

**Online Teaching Institute**
Flipped Classroom

What is Flipped Classroom?
New Idea and tools?!!

Source: [http://flippedclassroom.org/video/the-flipped-classroom](http://flippedclassroom.org/video/the-flipped-classroom)
Rethinking Learning Environment as Learning Spaces

- Community Space
- Personal Space

What is Flipped Classroom?
What learning activities take place in each space?

- Community Space
- Personal Space

The Critical Question in Managing Learning Spaces

What is the best use of the community space (especially the F2F class time)?
Research Questions

Does flipped classroom design lead to better learning outcomes?

How do students perceive the efficacy of this format?

Four sections of Biology 101
Flipped unit on **Chemistry of Biology and Biological Molecules**

Outside of class students watched videos on content

Class time was spent in groups working on application activities
Performance on unit exam (flipped) was compared to performance in a previous semester (traditional).

Survey was administered to gauge student perceptions of the flipped classroom experience.

Results of Learning Assessment
Overall performance on exam was not significantly different.
Performance on **application** type questions was significantly higher in the flipped group.

### Performance on Application Questions

![Bar chart showing performance on application questions with flipped and control groups.](chart)

**Significant at p<.05**

<table>
<thead>
<tr>
<th>Teaching Method</th>
<th>Mean Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flipped</td>
<td>70</td>
</tr>
<tr>
<td>Control</td>
<td>64</td>
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### Results of Self-Report Survey
62% response rate (n=61)

76% female (n=45)
24% male (n=14)

93% between the ages of 18-29

Students reported general satisfaction with the format

Rank the following statements in terms of your level of agreement (1-Strongly Disagree – 5 Strongly Agree)

1. The videos helped me understand the concepts being discussed.
   - 4.55

2. The recorded/lecture format allowed me to review segments if I needed to.
   - 4.5

3. I felt more engaged in class when the classroom was flipped.
   - 3.73
Learner Autonomy

“I thought the flipped classroom method was effective because I could watch it on my own time. I enjoyed the fact that I could rewind parts that I did not understand and I could rewatch the videos if necessary.”

Active Classroom

“I liked the flipped classroom method, because I could watch the videos and go through the PowerPoint on my own. Then it was great to do the homework in class because I had already seen the videos and PowerPoint, so if I had any questions I could ask them. Lecturing in the classroom just gets boring, but when we engage in the class and work together, I feel like it was easier to learn.”
Loss of Real Time Response

"I did not like not being able to communicate and ask questions."

Technology Problems

"Something that was ineffective was the quality sometimes it worked and sometimes didn’t it would go back to a different slide but it wouldn’t repeat anything he said on that slide."

More Work for Student

"I did not like spending so much time out of class working for the class."
Lessons Learned

Questions
Thank You