Exploring the Flipped Classroom: Does it Work?

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Agenda

• What is the flipped classroom?

• Does it work? Does lecturing work?

• How can we best approach learning in and outside of the classroom?
What is.....

The Flipped Classroom

Defining the Flipped Classroom

Lectures at Home  Active Learning in Class
A Brief History of the Flipped Classroom

Sage on Stage to Guide on Side
King 1993

Inverted Classroom
Lage, Platt, & Treglia 2000

Khan Academy
2006

Flip Your Classroom
Bergman & Sams 2012

Which Works Better?

Traditional Teaching

Flipped Classroom
Some Considerations…

• Differences between online vs. in person lectures
• Students with disabilities
• Socio-economic status and access
• Best use of class time
• Instructor and student time

Does the Flipped Classroom Work Better?

“Identified over 1,000 articles on flipped classroom
28 were studies in higher education setting

“This review found very few studies that actually demonstrated robust evidence to support that the flipped learning approach is more effective than conventional teaching methods.”

Evidence for Flipped Classroom Approach

1100 Chemistry Undergraduate Students

Traditional Lecture-
3 times per week

Flipped Classroom-
1 time per week with online lectures

Baepler, Walker, & Driessen (2014)

Evidence for Flipped Classroom Approach

Test Performance

Baepler, Walker, & Driessen, 2014)
Evidence for Lecture...

1098 First Year Students in Teacher Preparation Program

Quasi-experimental Study
Classes Randomly Assigned

Lecture (LLLL)  Case-based Learning (CCCC)  Lecture and Case-based Learning (LCLC)  Gradual Approach Lecture-Case Based Learning (LLCC)

Baeten, Dochy, & Struyven (2013)

What is Case-Based Learning?

1. Active Involvement-Constructing Knowledge
2. Teacher is Facilitator
3. Authentic Assignments
4. Cooperative Group Work
Direct Instruction with Gradual Introduction of Case-Based Learning Worked Best!

Gradual LLCC
Lecture LLLL
Case-based CCCC

Gradual LLCC
Lecture and Case-based LCLC

Baeten, Dochy, & Struyven (2013)

Direct Instruction is BEST for Novice Learners

Clark, Kirschner & Sweller (2012)
Expertise Reversal Effect

Lee & Anderson (2013)

So What is the RIGHT Question?

What teaching strategies will best help my students learn in and out of the classroom?
Important Teaching Considerations

- Know your students and your content
- Recognize importance of background knowledge
- Teach skills in addition to content

Haven’t we been doing this all along???

Read Chapter 5
Importance of Background Knowledge

<table>
<thead>
<tr>
<th></th>
<th>High Baseball Knowledge</th>
<th>Low Baseball Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good reader</td>
<td>31.4</td>
<td>18.8</td>
</tr>
<tr>
<td>Poor Reader</td>
<td>27.5</td>
<td>13.9</td>
</tr>
</tbody>
</table>

Recht and Leslie (1988)

How Can We Help Students Build Prior Knowledge BEFORE reading?

**Mini-Lecture**
- Before Assigning Reading
- Reading Assignment Questions
- Organizational Tools such as Power Point slides

**Teach Skills**
- Chapter Summary
- Table of Contents
Teach Reading Skills

McDaniel, Howard, & Einstein (2009)

3R: Read, Recite, Review

Artis (2008); Carlston (2011)

SQ3R: Survey, Question, Read, Recite, Review
Providing Online Support

The Read-Recite-Review Study Strategy
Effective and Portable

A common concern among institutions of higher education in the United States and abroad is whether and how to enhance student learning. The National Research Council (1990) and the American Psychological Association (1992) recommended that colleges and universities take steps to ensure that students are effectively prepared to receive information, make sense of it, and apply it to their studies. The Read-Recite-Review Study Strategy is an effective method for improving student learning.

Videos in Online Resources

MindTap

Studying Approaches That Work: Establishing an Effective Learning Framework

Tips from the Author:

- Watch the brief author video before reading this section.
Teach Active Learning Skills

The 5R Approach to Group Work
(Harrington, 2016)

Establish Rapport
Develop Rules
Determine Roles
Get Ready to Work and Support One Another
Remember to Evaluate
Group Roles

- Group Leader
- Note-Taker
- Visual Aid Leader
- Finishing Touch Specialist
- Rehearsal Director
- Questioner

Harrington (2016)

What Works?

Working *individually* on entire project *BEFORE* working together resulted in better academic performance

Knowing full *CONTENT* first *(vs. part of the content)* led to better performance

(Sarfo and Ellen, 2011)
Some first steps...

Learning Activities

• What background knowledge do students need?
• What skills do students need?
• How can you best use in and out of class time to achieve the learning outcomes?

All the best with answering....

What teaching strategies will best help my students learn in and out of the classroom?
Questions?

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Slides and reference list available at
www.scholarlyteaching.org