

# Flipping the Class

Fostering Deep and Flexible Learning



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## Anticipation Guide

*Directions:* Please read each statement and decide if you **Agree** or **Disagree** with the statement, or how might you want to **Edit** the statement.

1. Anyone can teach.
2. Active learning in students is fostered by note taking and discussions with fellow students.
3. Technology allows teachers to teach more powerfully, more efficiently, and with less effort.

obstacles →

# Overview

1. Introduction
2. Learning First
3. Flipping Essentials
4. Flipping Strategies
5. Conclusion

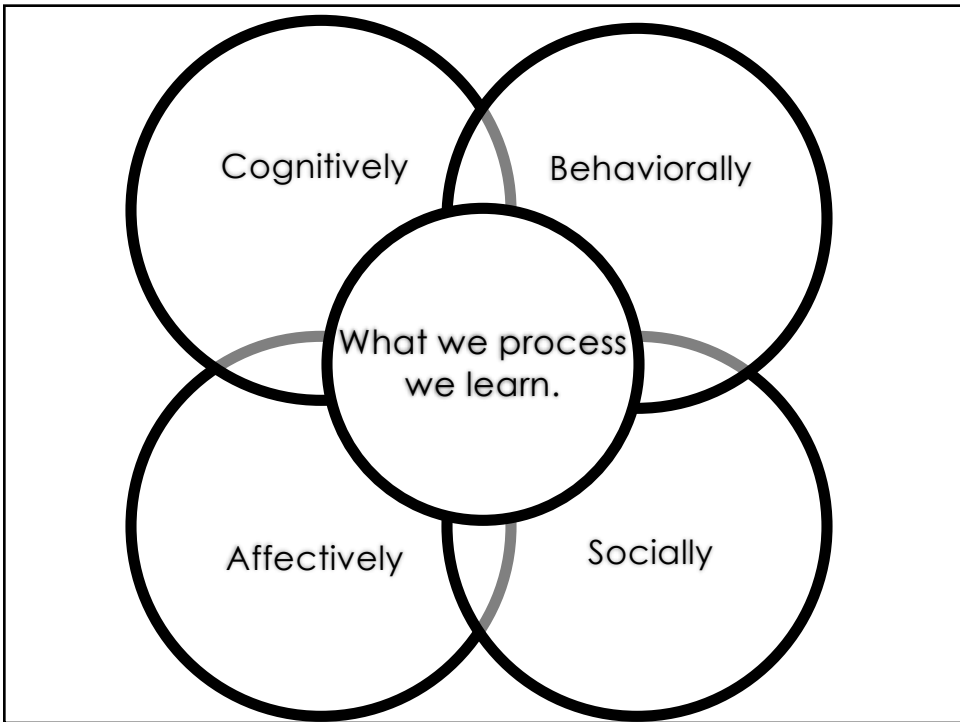
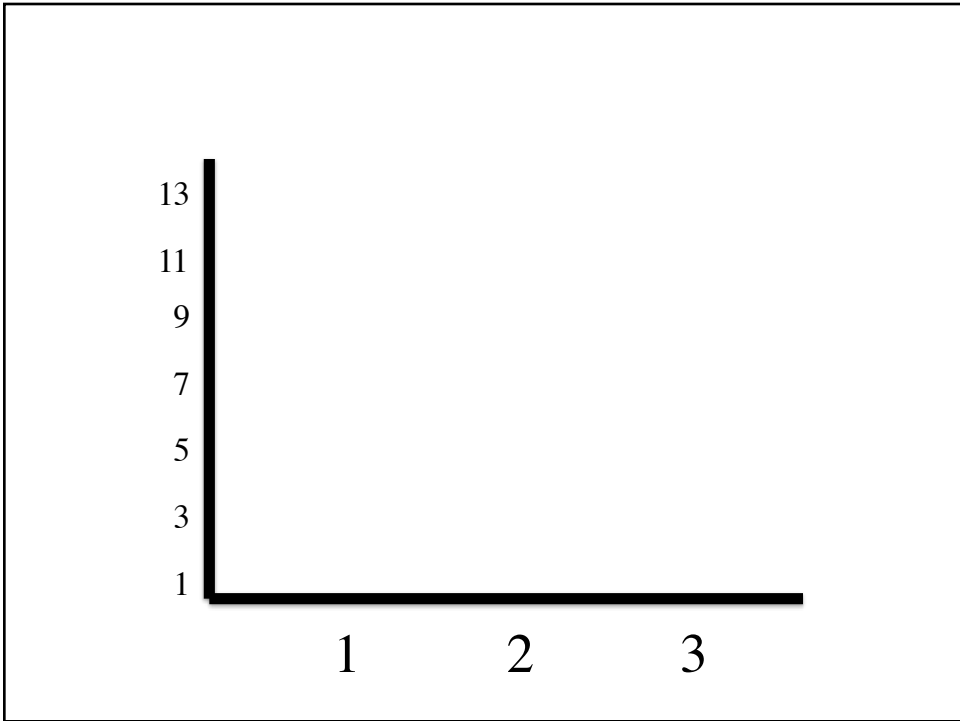


# Learning First

The processing of knowledge, experience, and self.



pairs →



## 6 Principles for Developing Deep and Flexible Knowledge

1. Learning through practice at retrieval
2. Learning through varied tasks and purposes
3. Learning at the principle level
4. Learning awareness and control (metacognition)
5. Learning in response to developmental feedback
6. Learning embedded in prior knowledge & experience

(Engle, 2006; Halpern & Hakel, 2003; Mariano, Doolittle, & Hicks, 2009; Wagner, 2006)

math →

## Flipping Essentials

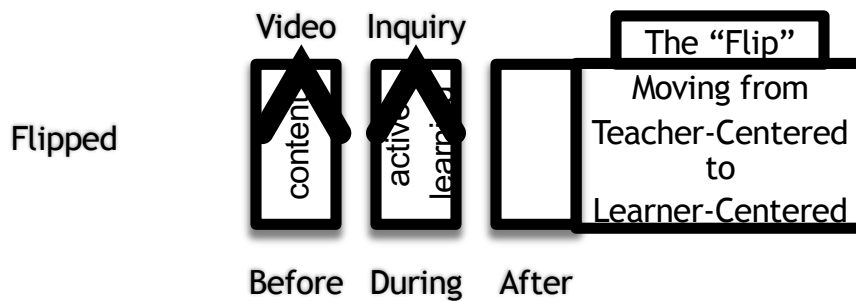
What flipping is and is not.



## Top 5 Reasons to Flip Your Class

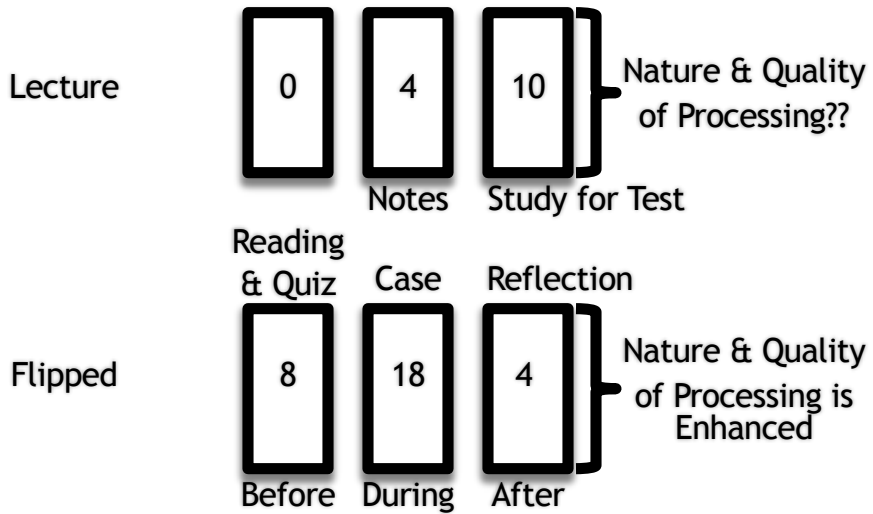
1. Increase student learning.
2. Increase student learning.
3. Increase student learning.
4. Increase student learning.
5. Increase student learning.

## Flipping Basics

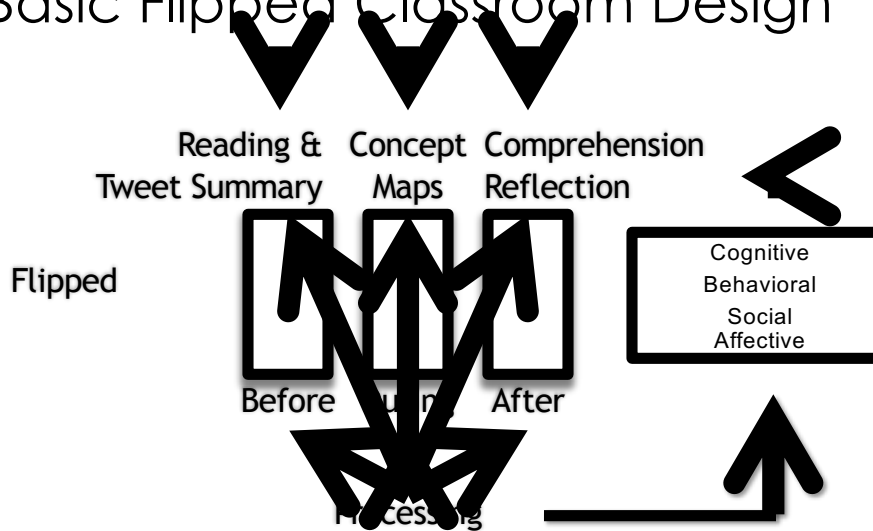


Learning is not magic, it's by design.

# Lecturing versus Flipping



# Basic Flipped Classroom Design



Flipping → Strategy → Processing → Learning

1. Learning through practice at retrieval
2. Learning through varied tasks and purposes
3. Learning at the principle level
4. Learning awareness and control (metacognition)
5. Learning in response to developmental feedback
6. Learning embedded in prior knowledge & experience

dog break →

A Break for the Brain



# Example 1

Will Hossack, Developmental Biology  
Salford University, Manchester, England

Reading Chapter  
Quiz



Before

Group Discussion

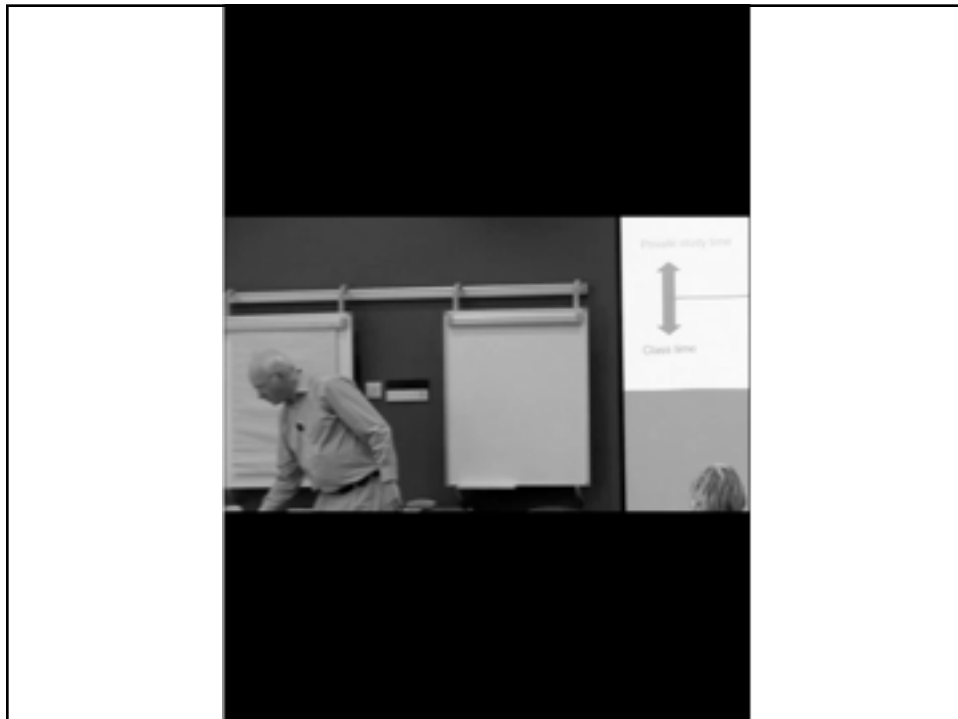


During

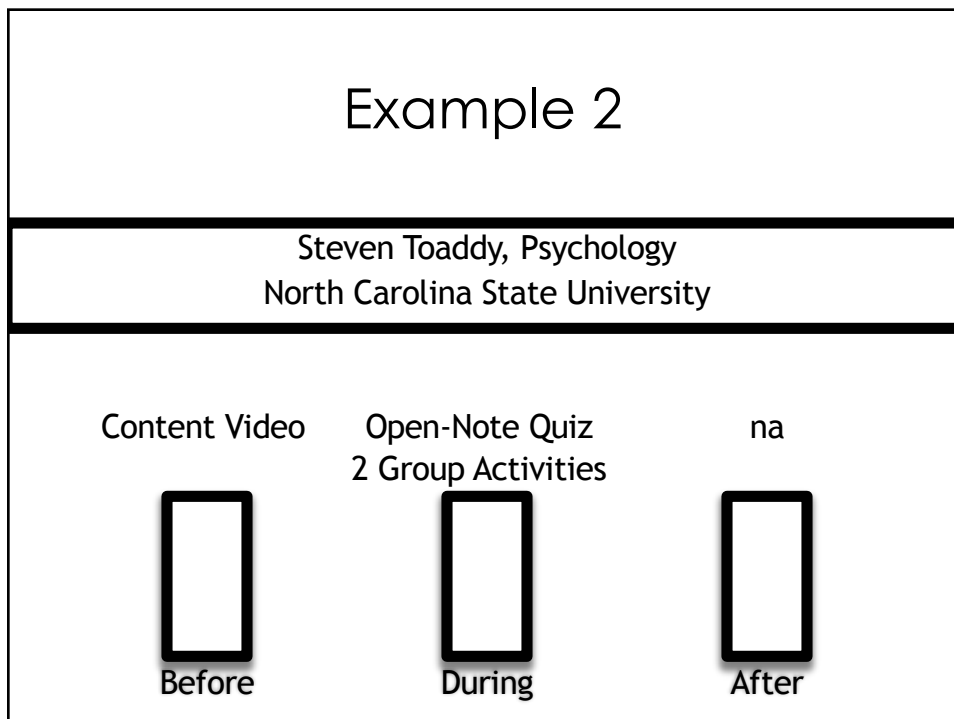
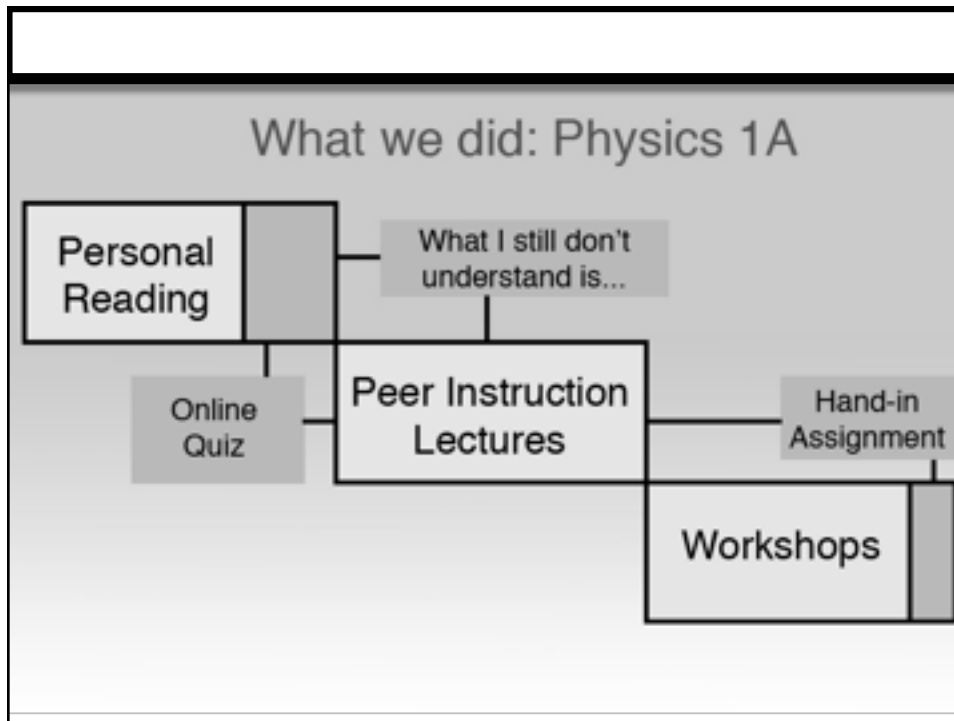
Small Group  
Recitation



After







Steven Toaddy – North Carolina State University



How are student's processing?

## Example 3

Peter Doolittle, Educational Psychology  
Virginia Tech

Read Article  
25-Word Summary



Before

Group Activities



During

Comprehension  
Reflection



After

## 25-Word Summaries

### Fostering Deep & Flexible Knowledge

**Learning Environment:** Students create a 25-word statement addressing the essential ideas, focusing on explaining and integrating ideas, not listing topics.

**Learning Artifact:** Students read a chapter or article, or watch a video, and extract, organize, summarize, and integrate the reading's essential ideas into a clear and concise statement.

**Learning Assessment:** Summaries are assessed using a scoring guide focused on structural format, clarity of thought and expression, and delineation of core messages.

## 25-Word Summaries

### Fostering Deep & Flexible Knowledge

Radical constructivism views knowledge as constructed through repeated experiences reconfirmed or rejected through comparison over time; this structures our experiences, which we perceive as reality.

# 25-Word Summaries

**Grading:** Each Chapter Summary Statement is worth 50 points and will be graded using the following criteria:

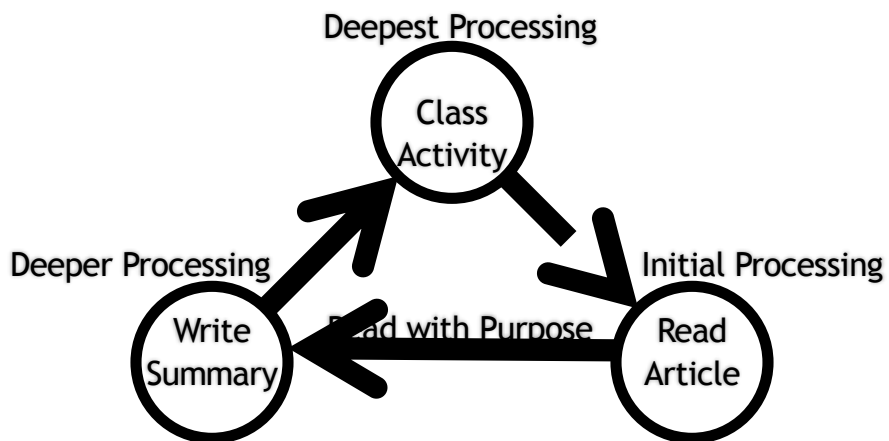
- |  |        |
|--|--------|
| 1. Structural Format   | 10 pts |
| a. Is the summary 25 words or less?  |        |
| b. Is the summary a coherent sentence, or sentences?                               |        |
| c. Does the summary avoid a simple listing of concepts, terms, or themes?          |        |
| 2. Clarity of Thought and Expression   | 15 pts |
| a. Are the ideas expressed well, well thought out, and integrated?                 |        |
| c. Does every word in the summary have a meaningful purpose?                       |        |
| d. Are correct grammar and syntax used?  |        |
| 3. Delineation of Core Message   | 25 pts |
| a. Does the summary accurately reflect the reading's central or essential message? |        |
| b. Are the reading's central or essential messages fully integrated?               |        |
| c. Does the summary reflect an understanding of the reading?                       |        |

plus Feedback



with Dragon Dictate

# 25-Word Summaries



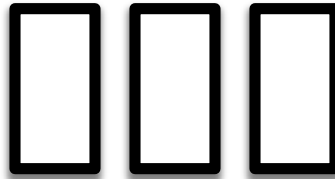


## 25-Word Summaries Summary + Visual Rep + Explain

1. Learning through practice at retrieval
2. Learning through varied tasks and purposes
3. Learning at the principle level
4. Learning awareness and control (metacognition)
5. Learning in response to developmental feedback
6. Learning embedded in prior knowledge and experience

# Flipping Basics

Flipped



Before    During    After

Learning is not magic, it's by design.

crazy →

# Flipping the Class

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