

Flipping Your Class

A Step-by-Step Guide



Peter E. Doolittle

Assistant Provost of Teaching and Learning

Executive Director, Center for Instructional Development and Educational Research

Professor, Educational Psychology, Department of Learning Sciences & Technology

Virginia Tech • Blacksburg • Virginia

Agenda

1. Introduction
2. Learning First
3. Flipping Basics
4. Flipping Examples
5. Flipping Design
6. Flipping Assessment
7. Closure



Learning First

The processing of knowledge, experience, and self.

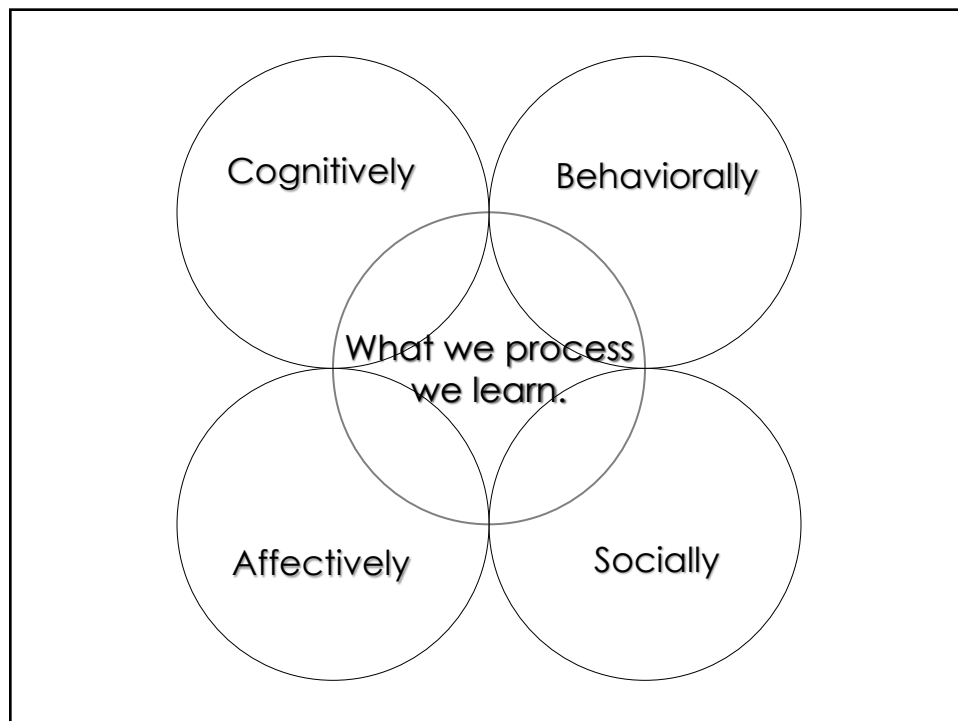


Activity

Learning & Meaning

1. Knowledge/meaning is constructed during experience and reconstructed during recalled.
2. Knowledge is organized.
3. When specifics are lost, meaning remains.
4. Cognitive strategies are used to function more effectively.
5. We can assess the effectiveness of our thinking.

(Baddeley, 1999; Brown, 1987; Hicks & Doolittle, 2008; Mayer, 2010; Reber, 2008)



7 Principles for Developing Deep & Flexible Knowledge

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

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

Flipping Essentials

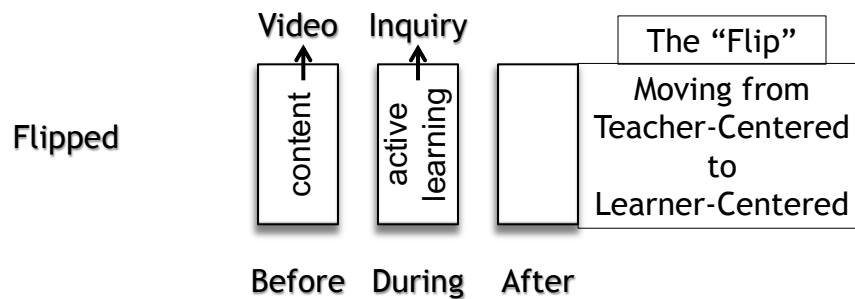
What flipping is and is not.



Top 5 Reasons to Flip Your Class

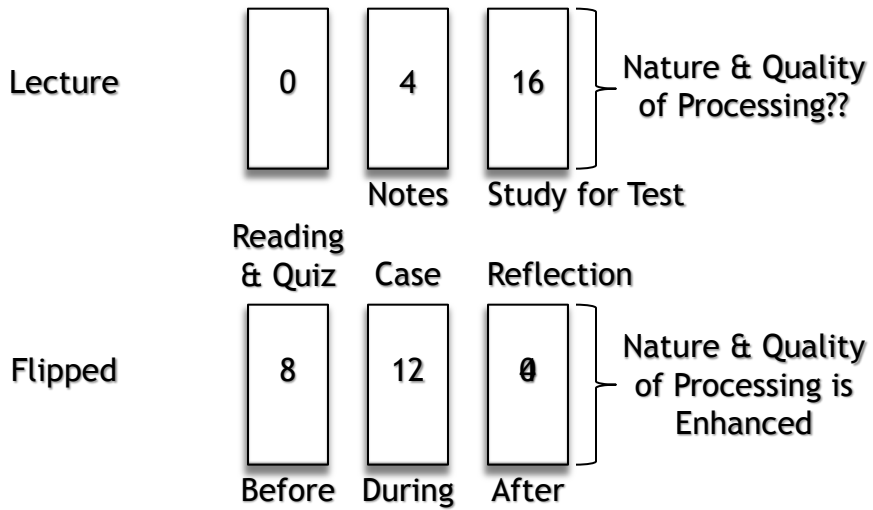
1. Increase student learning.
2. Increase student learning.
3. Increase student learning.
4. Increase student learning.
5. Increase student learning.

Flipping Basics

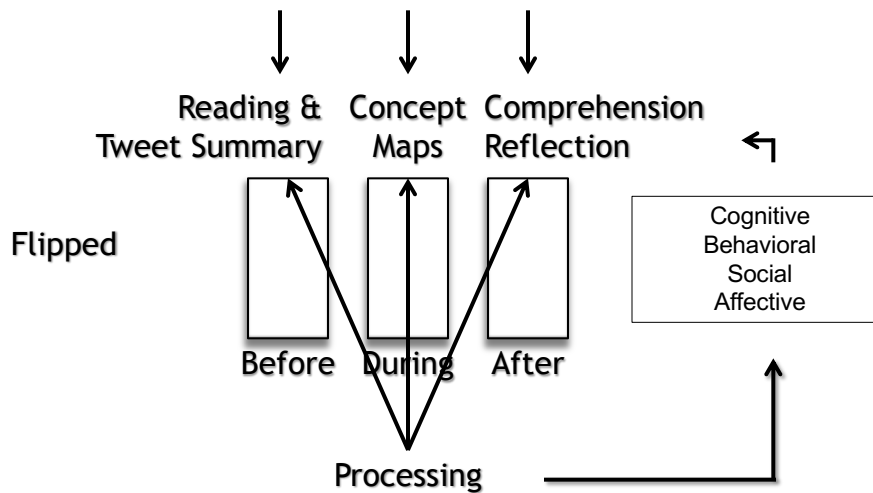


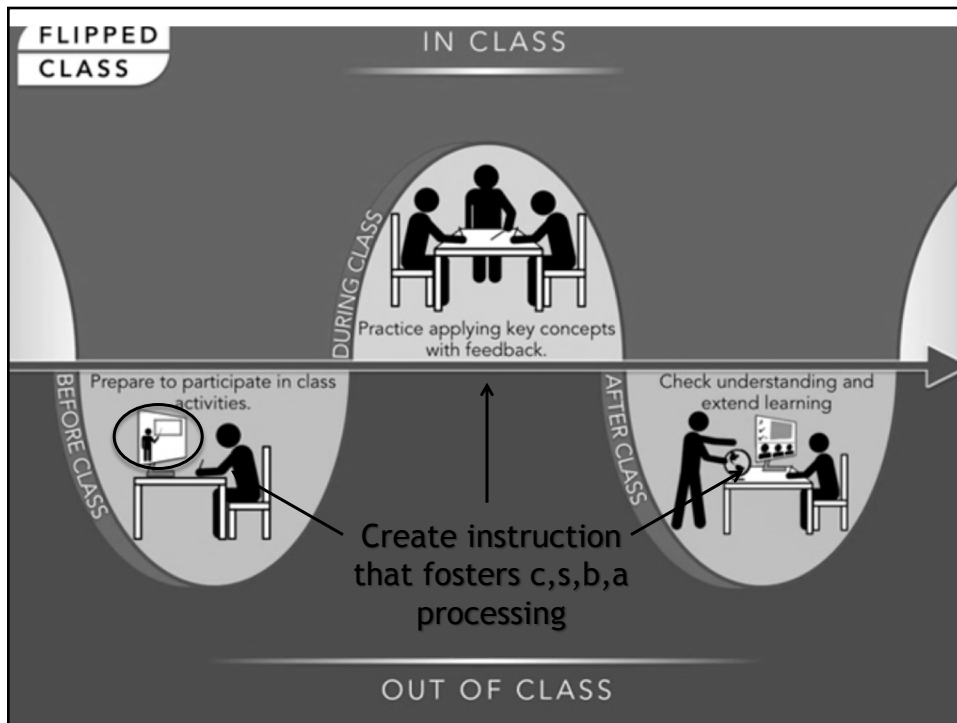
Learning is not magic, it's by design.

Lecturing versus Flipping



Basic Flipped Classroom Design





Does Flipping Work?

Flipping “works” to the extent that the design of the course motivates students to engage in the cognitive, behavioral, social, & affective processing (before, during, and after class)

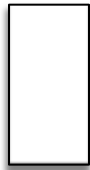
that is necessary to foster the learning and development that aligns with one’s outcomes.

Learning’s not magic, it’s by design.

Example 1

Will Hossack, Developmental Biology
Salford University, Manchester, England

Reading Chapter
Quiz



Before

Group Discussion



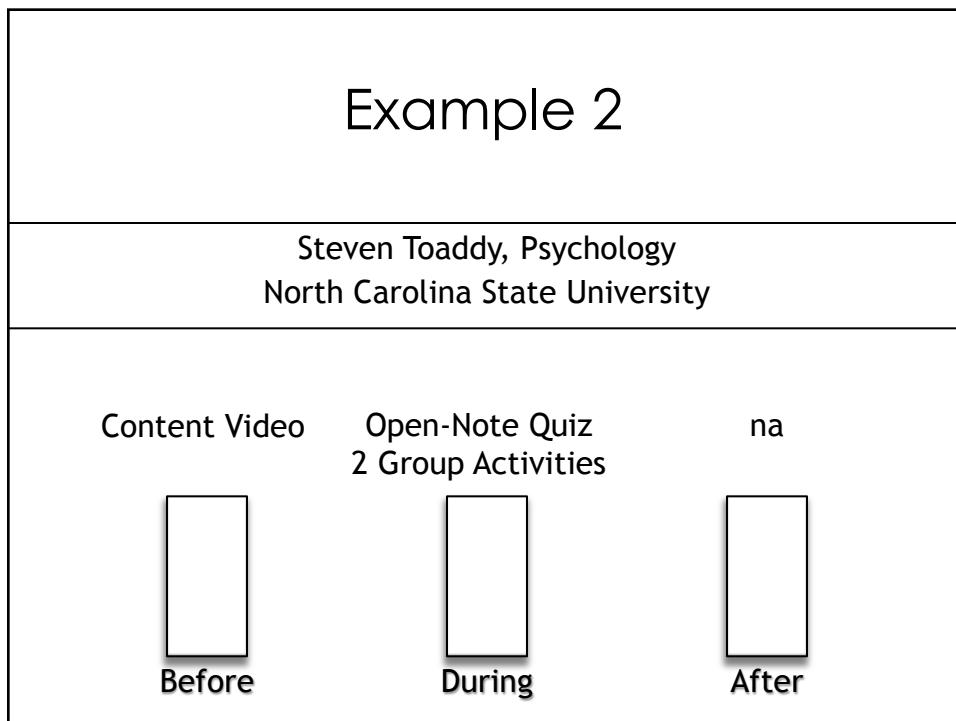
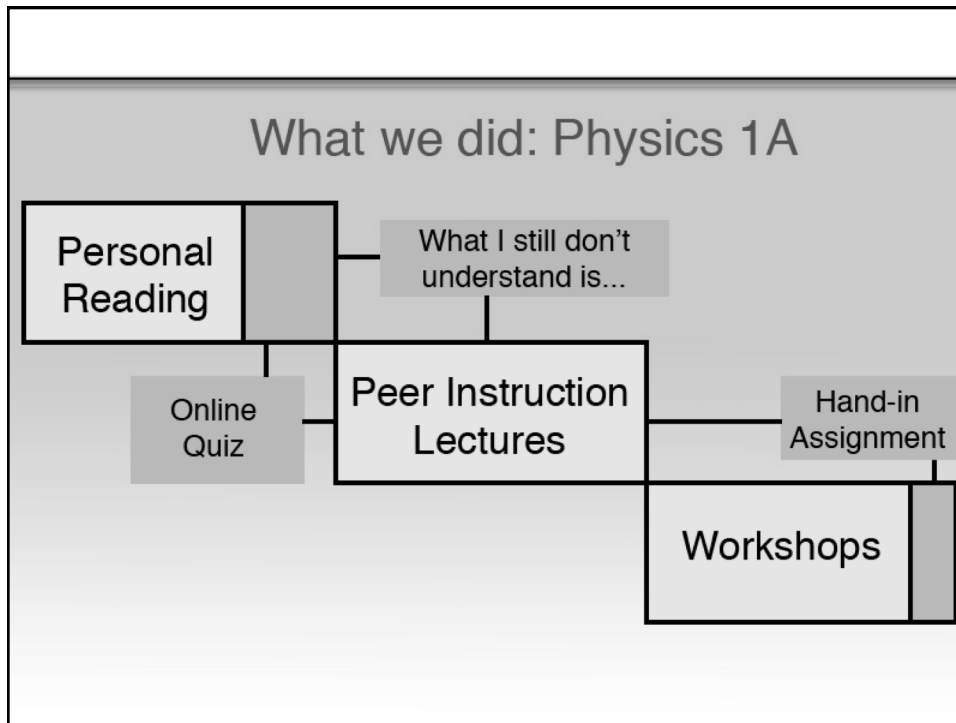
During

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

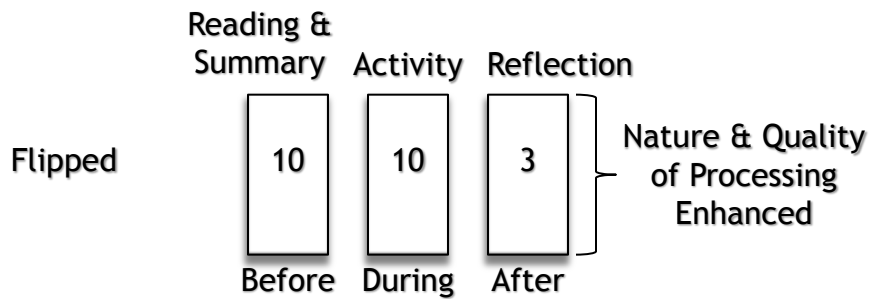
Group Activities

During

Comprehension
Reflection

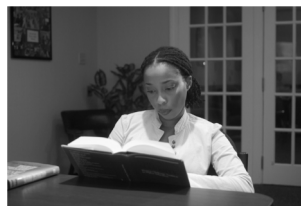
After

25-Word Summaries & Flipping

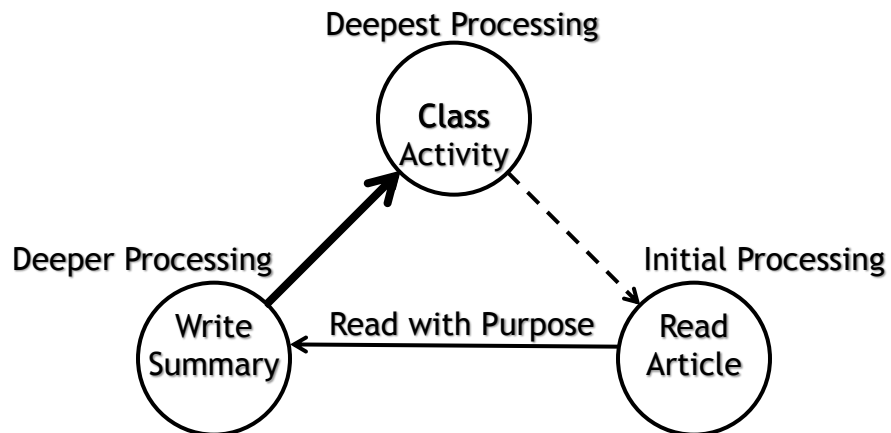


25-Word Summaries

- Opportunity to engage in reflective & critical thinking and extract the essential meaning from a reading, lecture, video, movie, activity, or experience
- Summarize the meaning clearly and concisely, based on student's understanding, in 25 words.



25-Word Summaries & Flipping



25-Word Summaries

* Students' guidelines for constructing a summary

1. Provide time to read, annotate, write, and rewrite
2. Provide time between reading/annotating and writing
3. Develop a strategy for annotating (notetaking)
4. Look for important details while reading
5. Read the entire article before committing to main ideas
6. Every word counts - write and rewrite
7. Writing summaries develops over time

25-Word Summaries

- Rubric for Evaluation

1. Structural Format 5 pts

- * Is the summary 25 words or less?
- * Is the summary a coherent sentence(s)?
- * Does the summary avoid listing?

2. Clarity of Thought and Expression 5 pts

- * Are the ideas expressed well and integrated?
- * Does every word have a meaningful purpose?
- * Are correct grammar and syntax used?

3. Delineation of Core Message 15 pts

- * Accurately reflect the reading's central or essential meaning(s)?
- * Are the reading's messages fully integrated?
- * Does the summary reflect an understanding of the reading?

25-Word Summaries

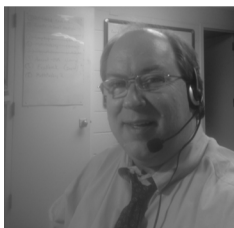
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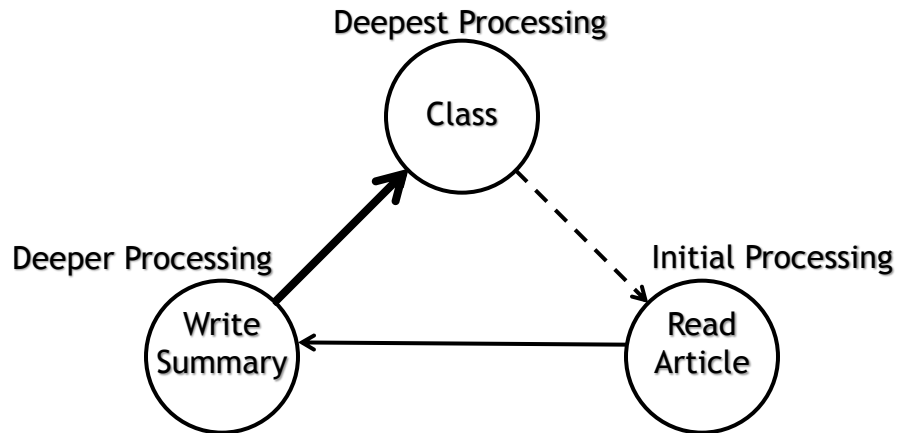
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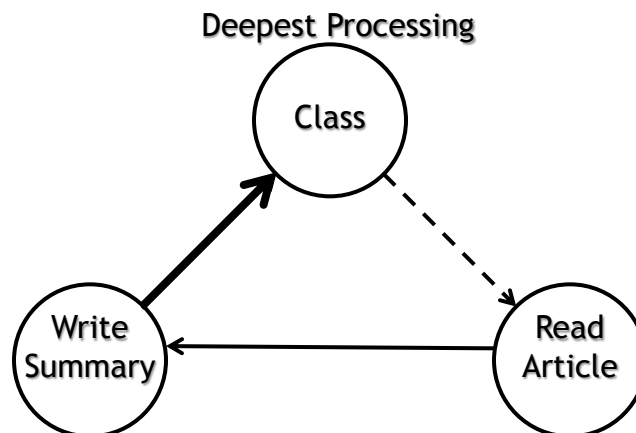
- Feedback



25-Word Summaries & Flipping



25-Word Summaries & Flipping



5 In-Class Activities (all in groups)

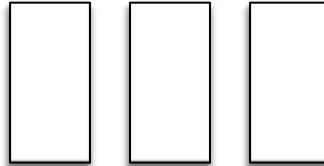
- * Jigsaw the Article
 - * Divide the article into 5 sections, have each group analyze their section, each group teaches their section
- * Share, Synthesize, Share
 - * Share summaries in group, write a group summary, share synthesized summary with class
- * Quote Connect
 - * Extract 20 quotes from the article, have each student read their quote and connect it to the previous quotes

5 In-Class Activities (all in groups)

- * Case Study
 - * Students read the case and create an answer based on the summary reading
- * Graffiti
 - * Create a question for each group. Each group gets 3 minutes to answer the question, then the questions are passed to the next group and the answering continues.
- * Video Interpretation
 - * Small groups review the reading, then watch a video looking for applications of the reading. Small groups then debrief, before the large group debriefs.

Flipping Basics

Flipped



Before During After

Learning is not magic, it's by design.

Flipping Design

Effective learning environments are not random events.



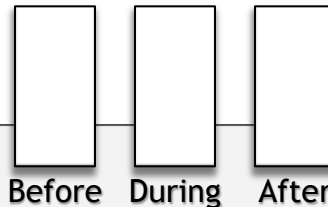
Lesson Sequencing & Design

Day	Topic	Objective	Before Class	During Class	After Class
1	Intro Syllabus				
2	Behaviorism CC	1.1 1.2	Article + Quiz	Jigsaw Article Teach Out	Personal Example
3	Behaviorism CC	1.1 1.2	Article + Summary	Summary Creation	
4	Behaviorism OC	1.1 1.3	Article + Quiz	Jigsaw Article Teach Out	Dog Training Vid + Explain
5	Behaviorism OC	1.1 1.3	Article + Summary	Summary Creation	

Processing

Lesson Design Basics

- Learning Outcomes
- Instructional Introduction
- Instructional Content
- Instructional Activity
- Instructional Assessment
- Instructional Closure
- Instructional Support



Before / Pre-Class

Processing	Assessment
1. Movie Videos 2. Content Videos 3. Group Mini-Projects 4. Web-based Reading 5. Web-based Research 6. Self-Reflection Response 7. Case Reading & Response 8. Simulation Problem Solving 9. Immersive Envrnmt Exploration 10. Read an Article/Story/Chapter	1. Blog/Vlog 2. MC Quizzes 3. Article Response 4. Artifact Creation 5. Tweet Perspective 6. Written Summaries 7. Mini-Case Response 8. Image Interpretation 9. 6-second Vine Video 10. Short Video Responses

During / In-Class

Processing
1. Simulations 2. Problem Sets 3. Case-Studies 4. Data Analysis 5. Serious Games 6. Artifact Critique 7. Skyped Speakers 8. Class Presentations 9. Explanatory Video Creation 10. Small/Large Group Discussions

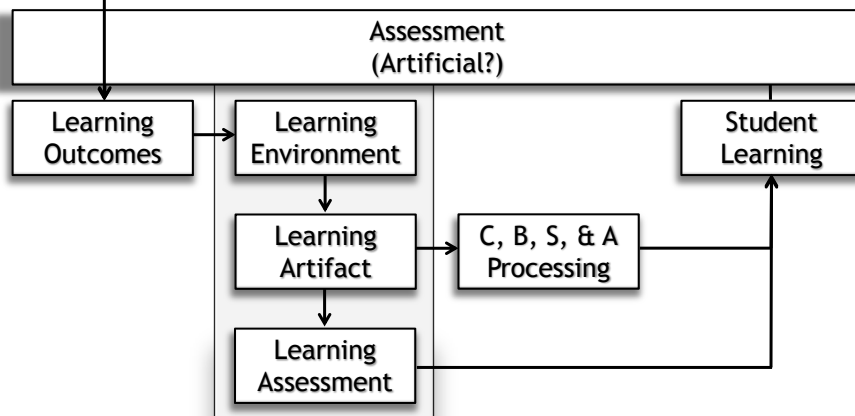
After / Post-Class

Processing

1. Blog/Vlog
2. Reflection
3. Problem Sets
4. Peer Critiques
5. Writing Revision
6. Class Feedback
7. Mini-Case Studies
8. Team-based Revisions
9. Improvement Inventory
10. Personal Application Case

Synthesizing Learning, Teaching, & Assessment

Active Learning
Engaged Students
Hands On Minds On



Course embedded assessment is not magic, it's by design.

Where We've Been

1. Introduction
2. Learning First
3. Flipping Basics
4. Flipping Examples
5. Flipping Design
6. Flipping Assessment
7. Closure



Flipping Strategies



9 Guidelines for Using Video

1. Provide an introduction to the video. Why are students watching? What are the objectives? Gain students attention.
2. Keep each video short: 10 minutes or less (5!). Divide longer episodes into short segments. More segments, more learning (less is more). Keep each video simple, uncluttered, and focused.
3. Align audio and video messages.

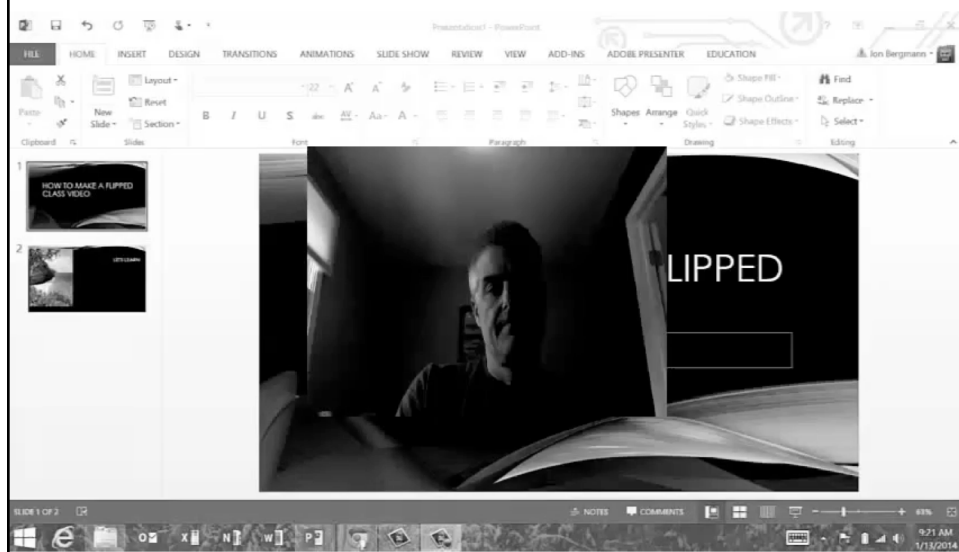
9 Guidelines for Using Video

4. Use a friendly tone when narrating. Engage and connect with the learner. Show yourself.
5. Plan and practice creating the instructional video.
6. If recording a class, speak clearly, repeat student questions, and provide an outline.

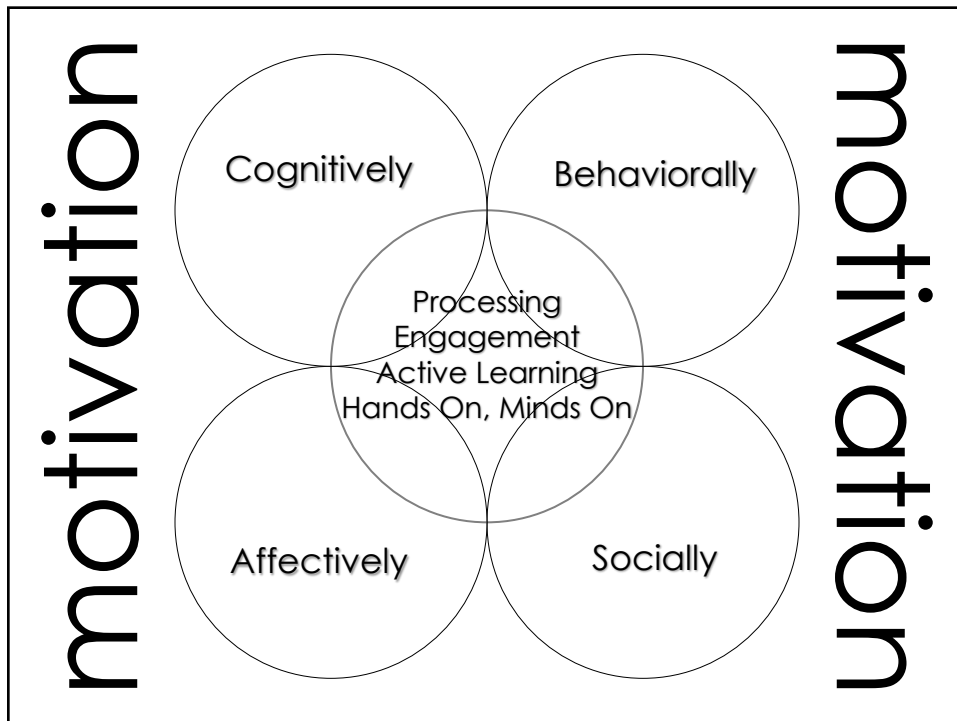
9 Guidelines for Using Video

7. Provide the content in multiple formats for students with special needs.
8. Provide a post-video processing activity. The activity may be pure processing or a learning assessment.
9. If a mastery approach is to be used, there needs to be additional instruction between repeated assessment attempts.

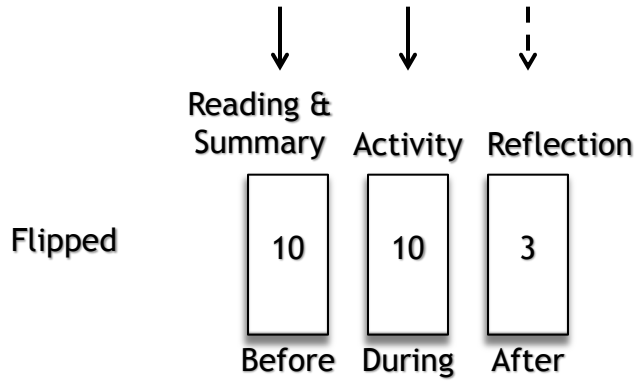
ScreenCast-O-Matic



Closure



Lesson Design Basics



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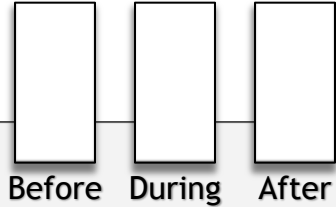
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Processing

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- Learning Outcomes
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- Instructional Closure
- Instructional Support



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