

Flipped Classroom: Disaster or Coup de Gras

Hull College of Business

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OVERVIEW

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PRESENTER

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- Education:
 - B.S. in Computer Science and Mathematics, with Minor in Chemistry from Brenau University in Gainesville, GA
 - MBA & Ed.S. in Ed. Leadership from Augusta State University
- Career:
 - Georgia Regents University
 - Troy University
 - Walt Disney World Co.
 - Electrolux
 - CompUSA

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What's Next?

First Love



"As we start a new school year, Mr. Smith, I just want you to know that I'm an Abstract-Sequential learner and trust that you'll conduct yourself accordingly!"

Newest Love



Shawna

Teaching Philosophy

- Employers hire for skills – not degrees:
 - Problem solving, critical thinking, decision making, communication, collaboration, time management
- Education = Power
- Perception = Reality
- Win Battles and Victory will follow
- In business (life) the audience is key
 - Know your students
- I Strive to engage students, Foster Deep thought and Critical Inquiry
- Require students take some responsibility for learning
 - Accept nothing late
- Utilize varying forms of teaching/evaluation methods

Teaching Philosophy

- Differentiated Teaching
 - Provides multiple ways for processing concepts, demonstrating knowledge, and evaluating assessments
 - Goal: Maximize growth of individual students
 - Goal: Meet student where they are
- Authentic assessment
 - Engage in real life scenario
 - Reinforce knowledge and skills learned in classroom
 - Simple as leprechaun comic task or as involved as graph creation from newspaper
 - Performance based learning and assessment

Getting Started Exercise

Boring Basics

- Select one concept/chapter with which you know your students struggle for which you are willing to try something new
- Organize into groups of 2 or 3
- Share your topics with each other
- Complete the Boring Basics handout
 - Share at least one idea with someone
 - Receive at least one idea from someone

Name: _____

Discipline: _____

Course: _____

Problematic Concept/Chapter: _____

BORING BASICS

SHARED IDEA

(You share)

Struggle:

Your Current Solution:

New Idea/Solution:

IDEA RECEIVED

(Someone shares an idea with you)

Struggle:

Suggested Solution:

Contact Info:

Name: _____

Email: _____

Flipping Defined

CASE CLASS

- An Old Idea with a New Name and a Twist

Backwards
Classroom

Inverted
Instruction

Inverted
Classroom

Blended learning
technique

Reverse
Teaching

Peer
Instruction

Reverse
Instruction

Flipping Defined

- So What's the **New Twist**
 - Focus on Higher Level Thought (deeper learning)
 - Maximize Time with Instructor
 - Increased one-on-one opportunities (Bloom 1984)
- No need to flip the entire course right away
 - Flipping one assignment will change the world for someone

*.....Dates back to start of printing press

Flipping Defined

○ The Basics of Flipping

- Before Class - Student reviews/learns concepts
 - Instructor spends less time lecturing and more time with students (Often achieved via technology-video lectures)
- Classroom time - Apply concepts to other contexts
 - Differentiation made easier
 - Higher level thought ([Blooms Taxonomy](#))
 - Collaborative, Student Centered, Experimental Learning
- After Class – Student engages in reinforcement activity
 - Retention is achieved/improved
- *Findings – Close the loop
 - Assess the flipped assignment

Flipping Defined

Traditional

- Class Lecture
 - Homework/Quiz
- Class Lecture
 - Homework/Quiz
- Exam

Teach by Telling

Teacher = Talker

Student = Bored

Class = Knowledge/
Understanding

Flipped

- HW: Video Lecture
- Class discussion
 - HW: Reading activity
- Class small groups
- Exam

Teach by Questioning

Teacher = Tutor

Student = Engaged

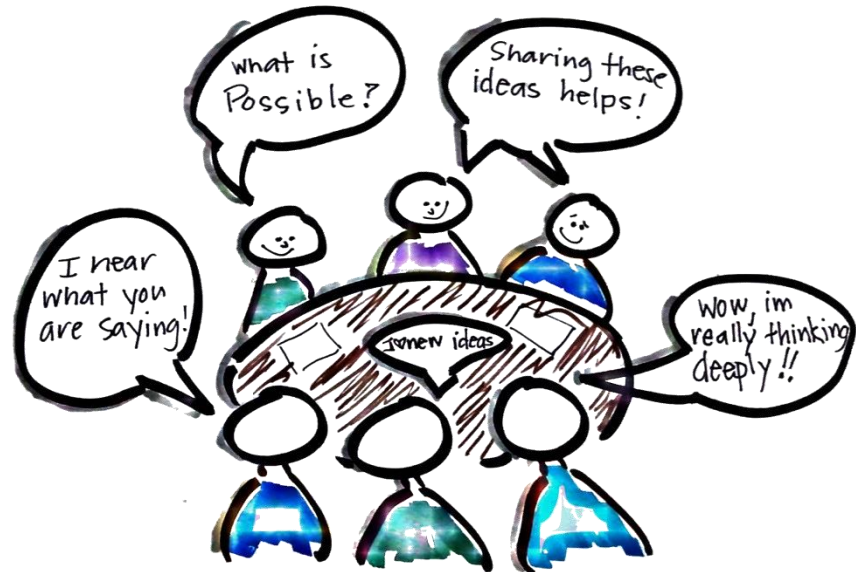
Class =
Application/Analysis

Flipping Defined

- How are you using your class time?



Everyone knows learning must be serious and difficult and you must remain seated at all times. No fun allowed.



Flipping Defined



- How are you using your class time?

Higher level thought

Creativity

APPLICATION

Deeper Thinking

Exciting

Analysis

Critical Thinking

Improved retention

Solution based discussion

Process Examples Defined

Step 1: Require assignment on *concepts being covered in class* to be completed **prior to class**

- Voiceover on powerpoint
- Video lecture (Khan Academy, itunes University, personal lecture capture, educational youtube)
- News clip (selected or unsolicited)
- Homework based on concept/chapter
- Group assignment with specific deliverables
- Others?

*Also assists with time management skills
**Forces student to own learning

Process Examples Defined

Step 2: Integrity of Flipping Assignment:

Ensure students ethically complete the pre-activity

1. Short quiz at the beginning of class
 - o Built into grade or for extra credit
2. Begin class with discussion assuming Blooms Level 1 & 2 knowledge levels
 - o Dismiss class if the majority are unprepared and do not re-cover in the next class period
3. Begin class with short group exercise requiring application
 - o Take up the papers with names

Process Examples Defined

Step 3: Thought Provoking, Goal Assignments used to stimulate deeper thought, improve critical thinking, and encourage creative, application, and analytical thought resulting in excitement and concept retention

1. Current Event Class Discussion
 - o Encourage and Reward participation
2. Small Group Discussions
3. Clicker Questions
4. Working End of Chapter Problems (math)
5. Solving Project Based Learning Assignments

Peer-to-Peer Learning

*Goal assignment: What have you always wished you had time to do in class?

Process Examples Defined

Step 3: Thought Provoking, Goal Assignments used to stimulate deeper thought, improve critical thinking, and encourage creative, application, and analytical thought resulting in excitement and concept retention

6. Real-Life Document Analysis (hand on, labs)
7. Problem Solve/Clarify
8. Individual Reflection
9. Course Projects:
 - Debates
 - Presentations

**In-depth
Application**

Case Studies

Process Examples Defined

Step 4: Follow up Assignment in an attempt to solidify the imprint of the newly gained knowledge on the student's mind.

- Additional Experience –

After class assignment of choice

- Write in journal
- Interview professional
- Mind map the concepts
- Review of Key concepts

Students Engage
and Retain more
when they have
choices

*Consider requiring a minimum number to be completed over the semester in a portfolio

Process Examples Defined

Step 5: Results Assessment

- Compare – was your “flip” effective
 1. Exam Scores
 2. Embedded Questions assessing specific Learning Outcomes
 3. Overall Course Grades
 4. Course Evaluations
 5. ETS scores



Discipline Integration

- Political Science/Economics
 - Provided later
- Communication
 - Require (memo, resume, cover letter) be brought to class prior to class discussion on written communication chapter
 - Require 2 minute informational/persuasive speeches on topic of choice on day covering oral communication. (do not have to choose everyone, allow class to critique speakers, offer extra credit for volunteers)

Discipline Integration

- Mathematics/Finance
 - Require analysis of firm of choice using specific equation or concept being covered (remember there is not a need to apply all of your knowledge to concept specific assignments)
- English
 - The local newspaper is an excellent source of inaccuracies
 - Utilize your library!
- Physical Education
 - Video of Rules, Sportsmanship, Team Selection
- Sciences, Art, Music, Logistics, or any Discipline
 - Follow outline to follow.....

*Brainstorm with
Colleagues!*

Discipline Integration

How to Flip Your Course – Flipped by Schmidt

o Design the deliverable considering

1. Where is your concept used in real life?
2. What assignment will benefit students beyond specific concept understanding?
3. Evaluation of group or individual assessment (rubric?)

o **Don't focus on the concept you need them to learn!**

o **Do focus on how the concept will be utilized/applied in their life.**

- o Know your students. Personalities, goals, majors, year in school, learning styles

o **Whenever possible:**

- o Allow students to choose
- o Partner with local businesses

My Design

Before - Boring Basic, traditional delivery/assignments

1. Attend lecture of chapter
 2. Complete homework/quiz
- Repeat #1 and #2 for three or four chapters
3. Complete Exam
- Repeat #1-#3 for three or four exams
4. Complete Final Exam

*Boring (for the student)

*Resulted in high DWF rate

My Design

After - Flipped Classroom

1. Read Chapter & Complete Homework
2. Attend Class & participate in daily activity
 - Repeat #1 and #2 for three or four chapters
3. Complete Exam
 - Repeat #1-#3 for three or four exams
4. Complete Project Based Learning course project

*We must change our approach to evaluation if we really desire to change our approach to teaching – students study according to assessment practices!

My Design - Data

Boring Basic verse Flipped Classroom

- 37-45 students
- Mostly Sophomores
- Some Juniors
- Few Freshmen/Seniors
- 50% Business Majors
- 30% Political Science
- No significant differences amongst the cohorts
- Evening classes were smaller with more upperclassmen and non-traditional students

My Design - Data

Boring Basic verse Flipped Classroom

Assignment	Spring 11	Spring 12	Spring 11	Spring 12	Fall 11	Fall 12				
Homework	Same Spring Semesters 2011 & 2012				Fall Semester: Improved Flip Assignment					
Mind Maps										
Graphs	Spring Semester: Day classes		Spring Semester: Evening classes							
Quizzes										
Exams										
Debate										
Journal										
Participation										
Total										
Sources of Flips										
Exams and Debates > 50% of course grade										
Graphs are used to prepare student for exams and debate (formative assessment)										

Findings

Greater Percentage assigned to **Flipped** Assignment & **Performance** Assessment

My Design - Data

Boring Basic verse Flipped Classroom

Assignment	DAY Class		EVENING Class	
	Spring 11	Spring 12	Spring 11	Spring 12
Homework	0	0	0	0
Mind Maps	0	10	0	10
Graphs	21	15	21	15
Quizzes	13	0	13	0
Exams	44	50	44	50
Debate	0	15	0	15
Journal	12	0	12	0
Participation	10	10	10	10
Total	100	100	100	100

*All numbers are percent values


Sources of Flips

Exams and Debates > 50% of course grade

Graphs are used to prepare student for exams and debate (formative assessment)

Student Outcomes

Boring Basic verse Flipped Classroom

	Macro		Macro	
	Afternoon		Evening	
	SPRING 11	SPRING 12	SPRING 11	SPRING 12
	Traditional	Flipped	Traditional	Flipped
#Students	45	45	19	43
A	29%	31%	37%	48%
B	36%	49%	16%	25%
C	13%	11%	16%	16%
D	4%	0%	5%	0%
F	9%	4%	16%	7%
W	9%	4%	11%	5%
	Completion Percentage		Completion Percentage	
A, B, or C	78%	91%	68%	89%
DFW	22%	9%	32%	11%
% change		13%		20%

Take Away

- **This really works!**

- More students successfully completed course
- Integrity of Flipping Assignment is important!
 - Must not be a “cake” assignment
- Traditional and Non-Traditional students will benefit differently

- **I was able to:**

- Add more current events and ‘dream topics’ to classroom experience
- Achieve higher level of thought in class discussions and witness ‘light bulb’ moments as critical thinking took a foot hold
- Course debates were so engaging a graduate faculty member duplicated and continues to use in her MBA course.

Take Away

○ **Time Commitment**

- Preparation of Flipped Assignments
 - Integrity, Concept based, Assessable
- Preparing students for 'flipped' experience
 - Explaining concept
 - Specific before/during/after class expectations
- Managing student expectations and the 'flipped experience'
 - Encouragement for slow to grasp students
 - Maintaining challenge for quick learners
 - Incorporating higher-level thought scenarios into curriculum

○ **Well worth the time based on**

- Final assessment
- Student comments (need to study these!)

Future Research Opportunity

- Further discover the differences among traditional verse non-traditional student benefit
- Explore possible differences in afternoon verse evening students
- Determine differences in course evaluation comments
- Determine retention level success by following up 6/12 months later
- Others?

Nursing Discipline Example

- **Flipping:** Students complete initial learning on their own time and class time is used to work through problems, apply concepts to scenarios, collaborate with instructor or peers, and ultimately achieve deeper level understanding from interactive and engaging activities resulting in higher level thought
- Watch Video by Andrew Wolf from the School of Nursing at the University of Rochester Medical Center
 - <http://www.youtube.com/watch?v=UL0ADbzCR2U&list=PLJ5kKhwVxA5Ju4lv0ZBqVGiUx1-HSQqMJ>

Exit Exercise

Flipped by Schmidt

- Complete the Flipped by Schmidt handout
 - Share your outcomes/ideas with each other
- * Problem Concept/Chapter: Select one concept/chapter with which you know your students struggle for which you are willing to try something new (Gains from Trade)
- !! - Specific Concept Struggle: Be specific concerning the struggle your students experience on this concept (math)
- **1** - Big Picture: Where is this concept utilized in real life? What career path utilizes this concept?
- **2** - Real World: What assignment relates to or requires student to enter the real world. Think cross-discipline/multidimensional
- **3** - Evaluation: Be sure to consider the level of difficulty with rubrics, formative/summative or objective/subjective assessment

Handout Instructions

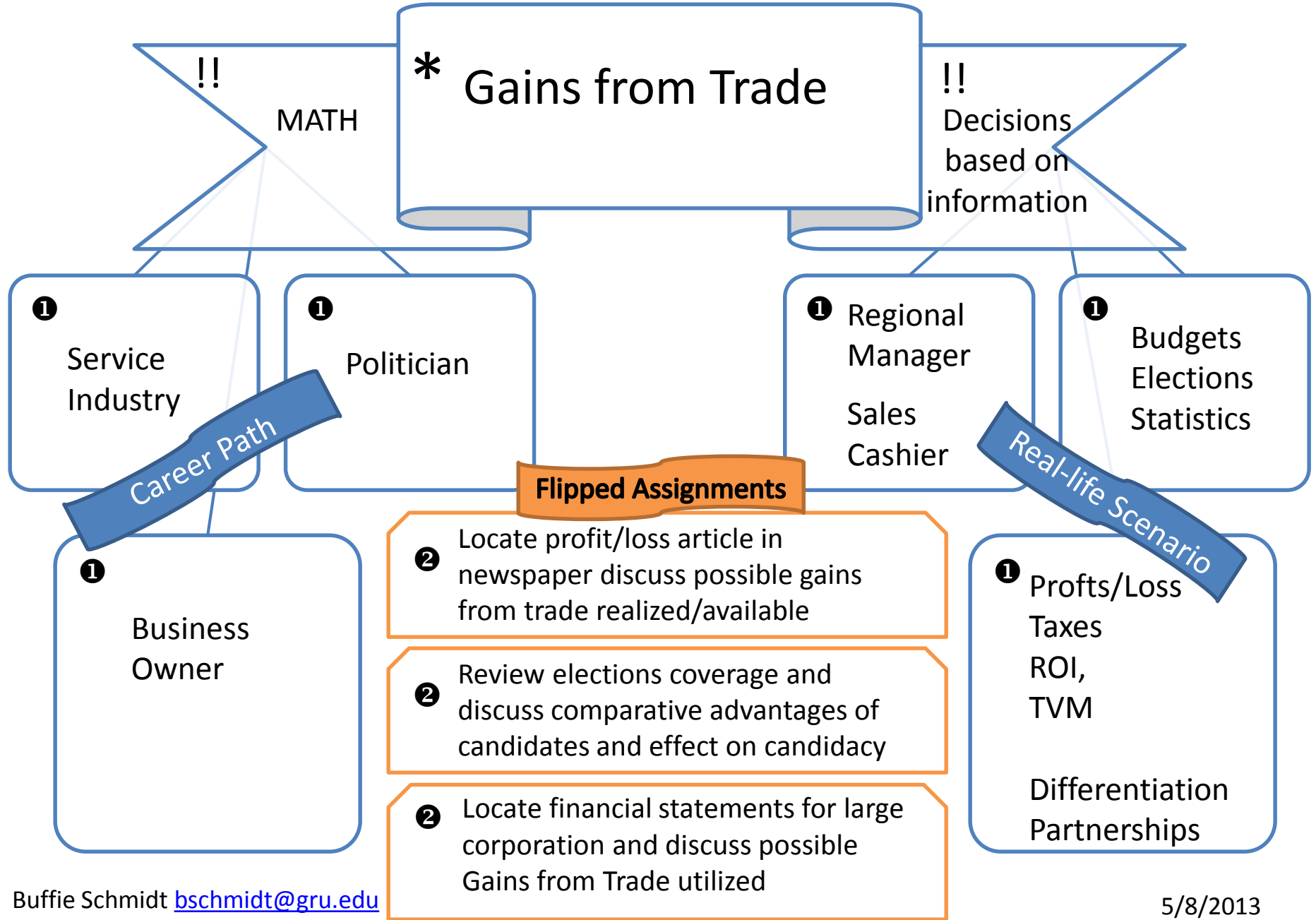
This worksheet is for **YOUR** benefit. It will help you devise effective Flipping ideas. It is not for students.

Orange boxes are assignment ideas you will choose from to utilize in class or as flipped assignments.

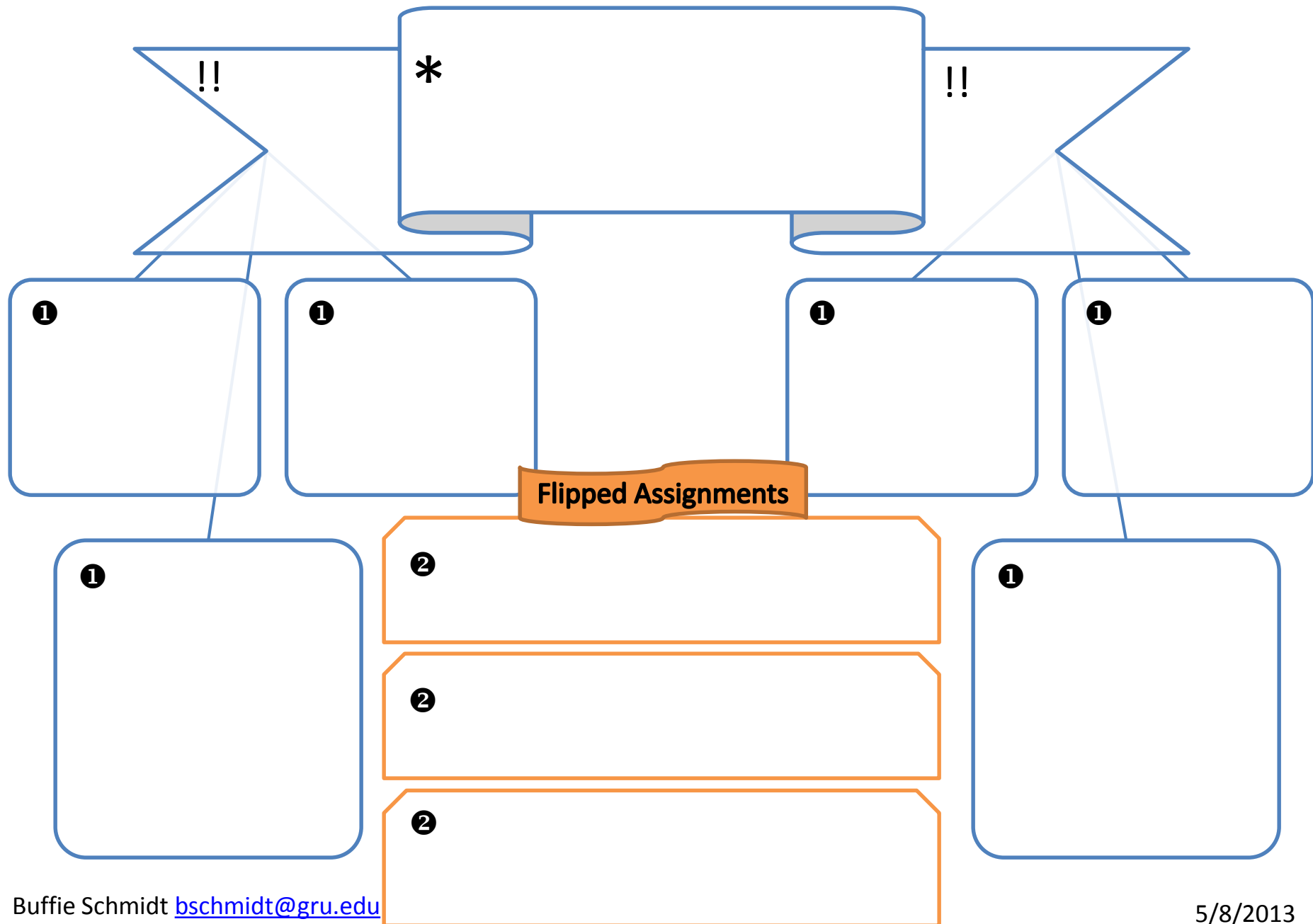
Blue Boxes indicate a recommended process to derive excellent ideas for flipped assignments that address root concepts/issues by utilizing real-life and proven retention increasing strategies

- *** Problem Concept/Chapter:** Select one concept/chapter with which you know your students struggle for which you are willing to try something new (Gains from Trade)
- **!! - Specific Concept Struggle:** Be specific concerning the struggle your students experience on this concept (math)
- **1 - Big Picture:** Where is this concept utilized in real life? What career path utilizes this concept?
- **2 - Real World Application:** What assignment relates to or requires student to enter the real world. Think cross-discipline/multidimensional. (These are possible assignments to use for flipping)
- **3 – Implementation/Evaluation:** It is now time to create your assignments and Flip your course/lecture. Be sure to consider the level of difficulty with rubrics, formative/summative or objective/subjective assessment.
- Share your outcomes/ideas with others

FLIPPED BY SCHMIDT



FLIPPED BY SCHMIDT



Exit Exercise

Your Findings?

- Compare Handouts
 - Which one do you think will excite and engage your students the most?
 - Which one do you think will result in higher level thought, greater retention, improved critical thinking, and decision making skills?
 - Which one are you more excited about?
 - If you are not more excited about the Flipping process, Why?
 - How can you make it more concise?
 - How can you adapt the concept to your teaching style?

THANK YOU



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with Thoughts or Questions!

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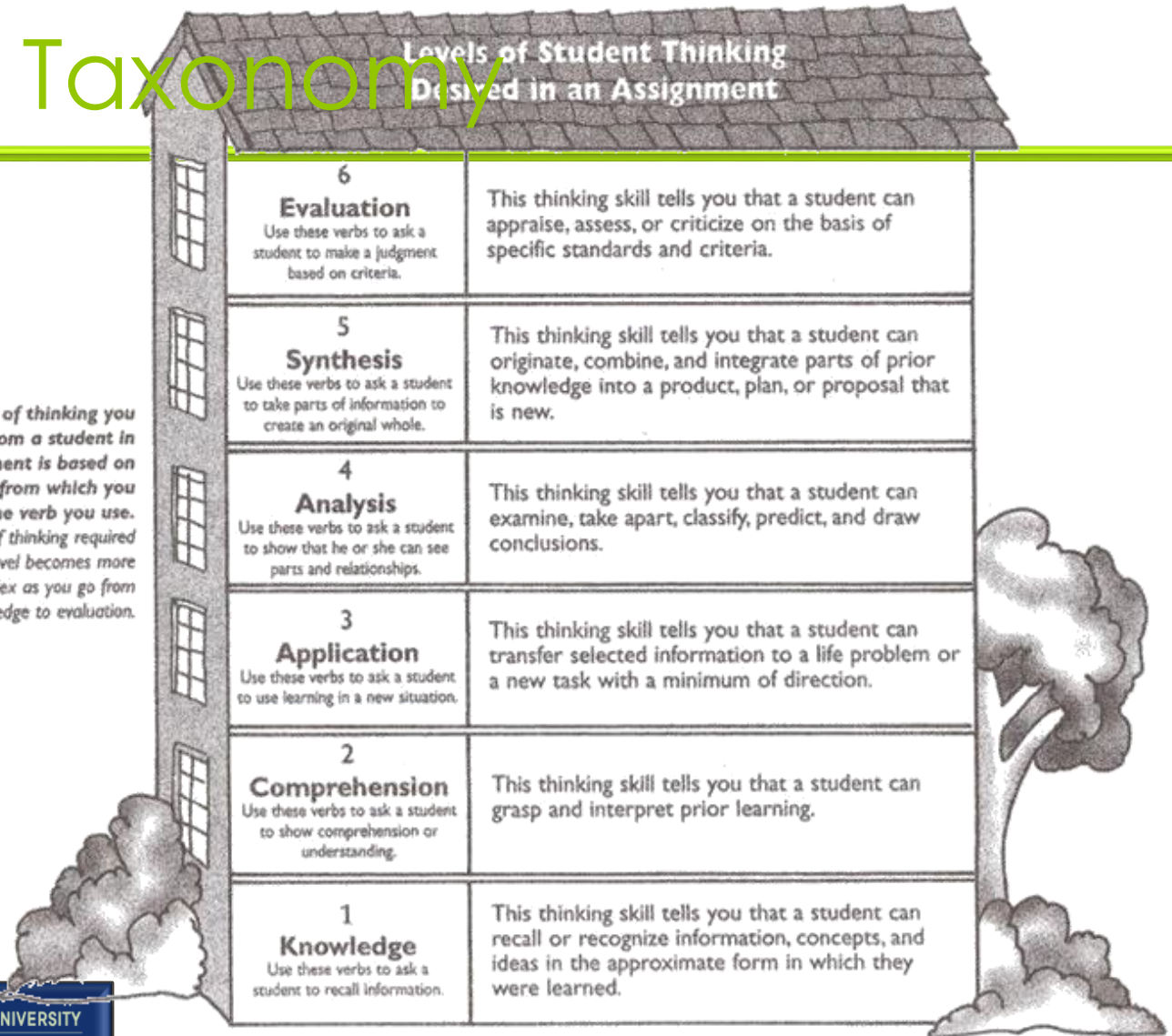
Blooms Taxonomy

Levels of Student Thinking Desired in an Assignment

Return to #10
Flipping Defined

Return to #15
Step 2: Integrity

The level of thinking you want from a student in an assignment is based on the level from which you select the verb you use. The type of thinking required at each level becomes more complex as you go from knowledge to evaluation.



6
Evaluation
Use these verbs to ask a student to make a judgment based on criteria.

This thinking skill tells you that a student can appraise, assess, or criticize on the basis of specific standards and criteria.

5
Synthesis
Use these verbs to ask a student to take parts of information to create an original whole.

This thinking skill tells you that a student can originate, combine, and integrate parts of prior knowledge into a product, plan, or proposal that is new.

4
Analysis
Use these verbs to ask a student to show that he or she can see parts and relationships.

This thinking skill tells you that a student can examine, take apart, classify, predict, and draw conclusions.

3
Application
Use these verbs to ask a student to use learning in a new situation.

This thinking skill tells you that a student can transfer selected information to a life problem or a new task with a minimum of direction.

2
Comprehension
Use these verbs to ask a student to show comprehension or understanding.

This thinking skill tells you that a student can grasp and interpret prior learning.

1
Knowledge
Use these verbs to ask a student to recall information.

This thinking skill tells you that a student can recall or recognize information, concepts, and ideas in the approximate form in which they were learned.

Bloom's Taxonomy

Blooms Taxonomy

Return to #10
Flipping Defined

Return to #15
Step 2: Integrity

Thinking Words to Use in Assignments

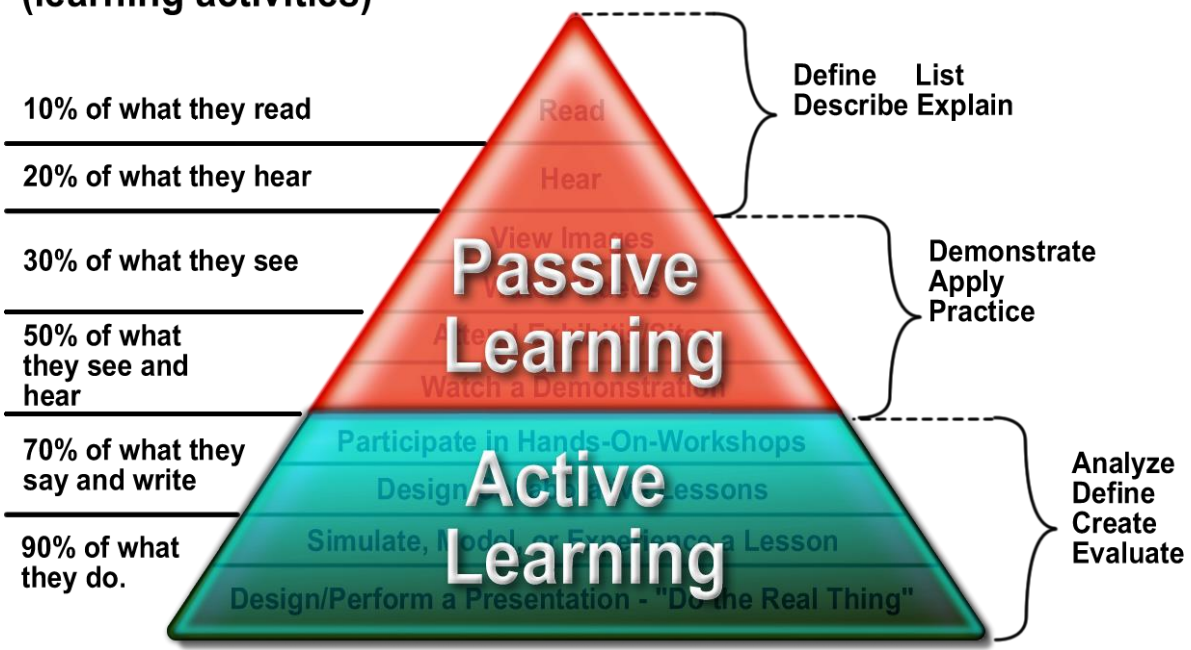
6 Evaluation	appraise, choose, compare, conclude, decide, defend, evaluate, give your opinion, judge, justify, prioritize, rank, rate, select, support, value
5 Synthesis	change, combine, compose, construct, create, design, find an unusual way, formulate, generate, invent, originate, plan, predict, pretend, produce, rearrange, reconstruct, reorganize, revise, suggest, suppose, visualize, write
4 Analysis	analyze, categorize, classify, compare, contrast, debate, deduct, determine the factors, diagnose, diagram, differentiate, dissect, distinguish, examine, infer, specify
3 Application	apply, compute, conclude, construct, demonstrate, determine, draw, find out, give an example, illustrate, make, operate, show, solve, state a rule or principle, use
2 Comprehension	convert, describe, explain, interpret, paraphrase, put in order, restate, retell in your own words, rewrite, summarize, trace, translate
1 Knowledge	define, fill in the blank, identify, label, list, locate, match, memorize, name, recall, spell, state, tell, underline

Bloom divided the verbs into six categories. All the verbs in a group indicate a kind of thinking skill needed to complete an assignment. The verbs denote what a student is to do.

Active Learning

People generally remember... (learning activities)

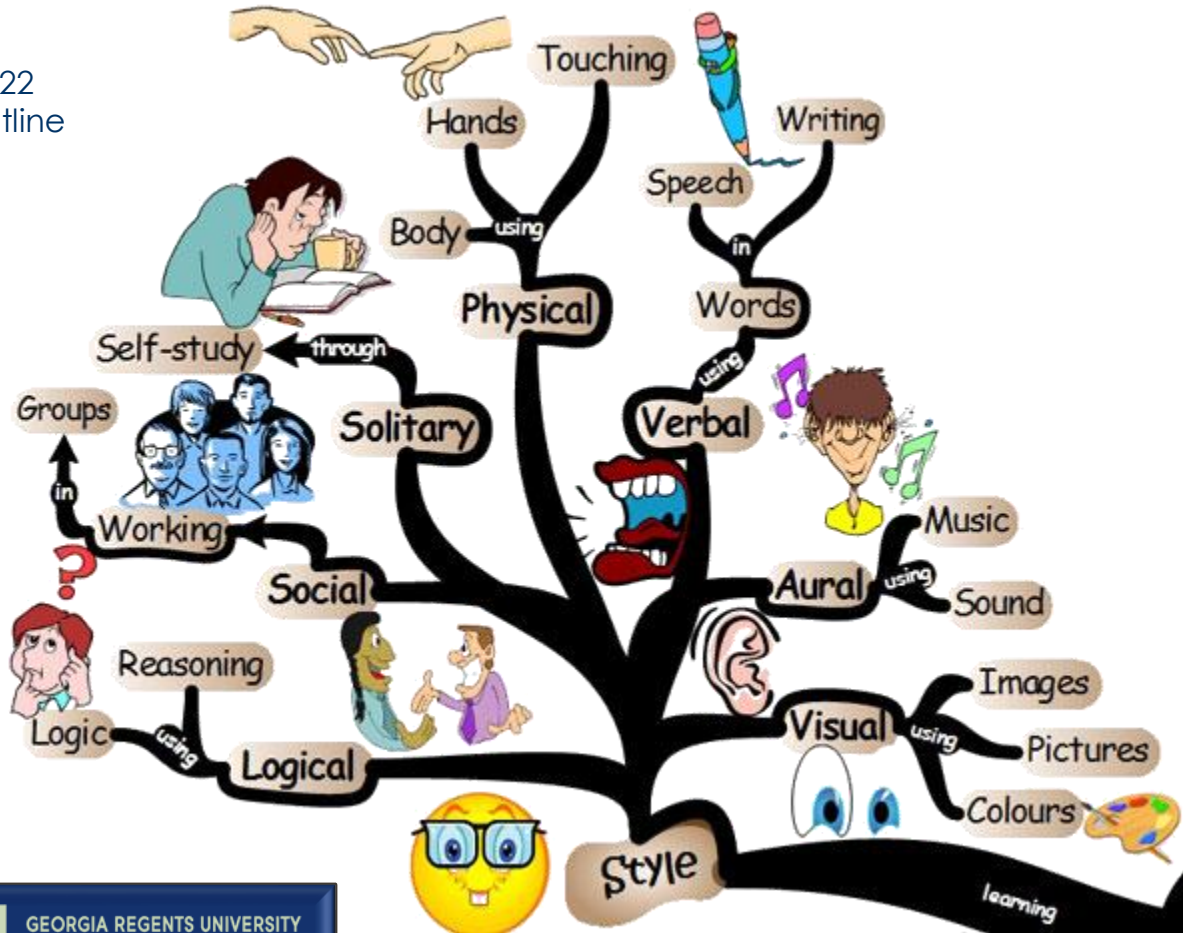
People are able to... (learning outcomes)



Return to #17
Step 3: Thought

Learning Styles

Return to #22
Flipping Outline



*ccsf.edu

Notes
