# THE "FLIPPED CLASSROOM" A MODEL FOR ACTIVE LEARNING

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### Conflicts of interest

• Dr. Schwarzenberger: none relevant

• Dr. Burgin: none relevant



### Disclaimer

- Today, we will tout the potential (and hopefully real) benefits of one model of active teaching
- The irony that we begin teaching this in a passive lecture format is not lost on us....



### What we hope to do today

- Briefly discuss concept of active vs. passive learning
- Introduce you to the "flipped classroom"
- Begin an ongoing dialogue about effective techniques of active learning/teaching

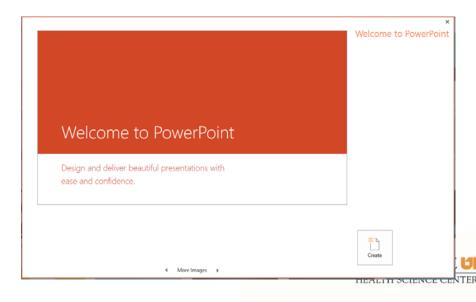


# Has your institution "flipped"?

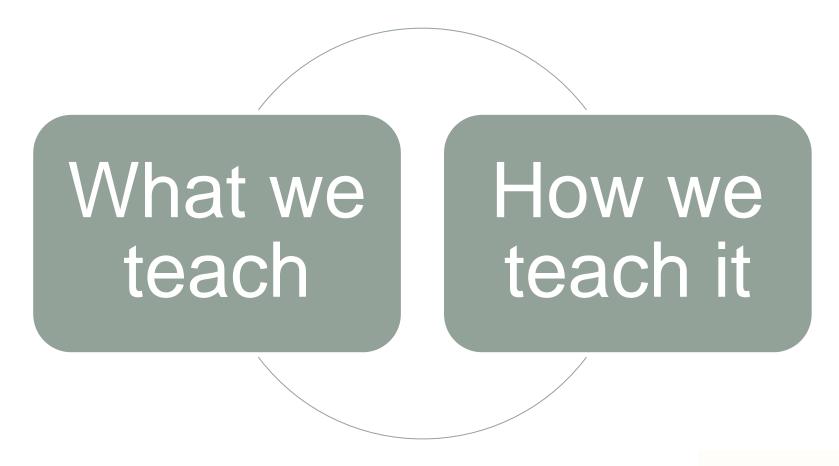


20 years of dermatology education....





### Is one more important than the other?







Blah? Traditional lecture classes have higher undergraduate failure rates than those using active learning techniques, new research finds.

Wikimedia

### Lectures Aren't Just Boring, They're Ineffective, Too, Study Finds

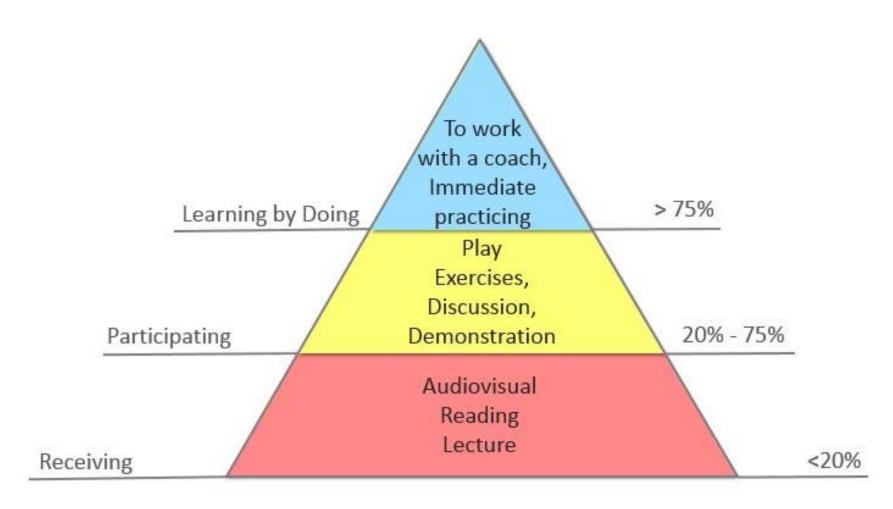
By Aleszu Bajak | May. 12, 2014, 3:00 PM

Science NAAAS

Are your lectures droning on? Change it up every 10 minutes with more active teaching techniques and more students will succeed, researchers say. **A new study** finds that undergraduate students in classes with traditional stand-and-deliver lectures are 1.5 times more likely to fail than students in classes that use more stimulating, so-called active learning methods.

### AFTER 2 WEEKS WE TEND TO REMEMBER 10% 20% 30% of what we read of what we hear of what we see 70% 90% 50% of what we see and hear of what we say of what we DO www.iat.com

https://www.iat.com/



### Retention of Learning

L Kokcharov @ 2015

# **Bloom's Taxonomy**



#### Produce new or original work

Design, assemble, construct, conjecture, develop, formulate, author, investigate

evaluate

#### Justify a stand or decision

appraise, argue, defend, judge, select, support, value, critique, weigh

analyze

#### Draw connections among ideas

differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test

apply

#### Use information in new situations

execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch

understand

#### Explain ideas or concepts

classify, describe, discuss, explain, identify, locate, recognize, report, select, translate

remember

Recall facts and basic concepts

define, duplicate, list, memorize, repeat, state

### The traditional lecture

"classroom first, then homework"

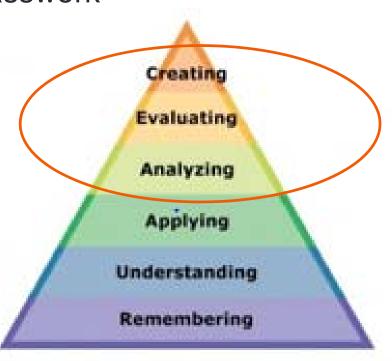


Retrieved 10/3/16 from http://cft.vanderbilt.edu/guides-sub-pages/flipping-the-classroom/.



### The flipped classroom

• "homework first, then classwork"



Brame, C., (2013). Flipping the classroom. Vanderbilt University Center for Teaching. Retrieved 10/3/16 from http://cft.vanderbilt.edu/guides-sub-pages/flipping-the-classroom.



### How People Learn

- "To develop competence in an area of inquiry, students must :
  - Have a deep foundation of factual knowledge
  - Understand facts and ideas in the context of a conceptual framework
  - Organize knowledge in ways that facilitate retrieval and application"

Bransford JD, Brown AL and Cocking RR (2000). How people learn: Brain, mind, experience and school. Washington, DC: Natl Acad Press



### Does flipping the classroom accomplish this?





# Essentials of the flipped classroom



1. Provide students and opportunity to gain first exposure prior to class

Brame, C., (2013). Flipping the classroom. Vanderbilt University Center for Teaching. Retrieved 10/4/16 from http://cft.vanderbilt.edu/guides-sub-pages/flipping-the-classroom/.



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- 2. Provide an incentive for students to prepare for class
- 3. Provide a mechanism to assess student understanding
- Provide in-class activities that focus on higher level cognitive activities



# The flip doesn't need to be "all or nothing"

 Can incorporate elements of active learning along with more traditional teaching styles and still be effective

