

# Flipping 101: An introduction to flipped classrooms

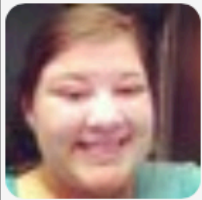


Julie Schell  
Sr. Educational Research Associate  
Mazur Group, Harvard University

Syracuse University  
Syracuse, NY  
April 25, 2013





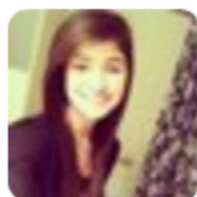


**brianna girlie** @bripaigegirlie

33 mins

I hate school. Ihateschool. I HATE school. I h8 school. I hate skool.  
lh8skool. I. hate. school. Eye h8 skool. I HATE SCHOOL. **#ihateschool**

Expand   ↩ Reply   ↻ Retweet   ★ Favorite   ⋮ More



**LundenStallings** @livestrong\_1

Feb 25

I was having a pretty good night, until I realized i gotta get up for prison in the morning 😊🔫 **#ihateschool**

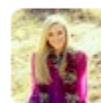
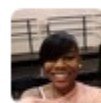
Collapse ↩ Reply ↻ Retweet ★ Favorite ⋮ More

**11**

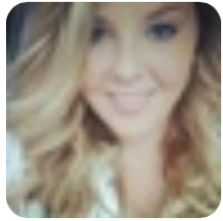
RETWEETS

**3**

FAVORITES





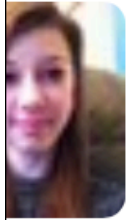


**Allison Newby** ♥ @allisonnewby13

Tomorrow is new fresh start to a long week of torture.

**#ihateschool**

Expand



**Kaylee Krepps** @kay\_lay13

Fel

Dear pre-calc, **I hate** your stinking guts You make me vomit You're the scum between my toes Love me P.S. send that message to **physics** too





**JasmineJandu** @JasmineJandu

13 mins

I hate the fact that there's school tomorrow. Dead serious right now, I'd rather throw up and sit on it. **#ihateschool**

Expand



**Kelly Chen** @pianokchen

4h

School is so boring [#ihateschool](#)

Expand

---





**brookedlane** @brookedlane14

Completely. Bored. Out. Of. My. Mind. 🙄🔫 #ihateschool

Expand



**Jessie Stockstad** @jessiestockstad

16 Apr

Casually sitting in my room staring at the wall cause that's more fun than actually studying **#iloveschool**

Expand   ↩ Reply   ↻ Retweet   ★ Favorite   ⋮ More





✨ Lexie 🌨️ ✨ @XxL\_weeezyxX

17 Mar

History = there dead dude.  
English = dictionary/ google.  
Science = not a nerd. Don't need it.  
Math= calculator.  
**#ihateschool #die**

Expand



**KAILS** @kaillleybird

7 Apr

Never learned how to get a loan, buy a house, car, or anything else useful in life, but I DO know the effing **pythagorean** theorem

Expand



Would be funny...if it wasn't so  
heartbreaking.



- no ON / OFF button
- only last “click counts”
- displays recorded answer
- ID on back

What #hashtag best describes your schooling experience...

- a. #ihateschool
- b. #iloveschool\*(really)
- c. #schoolisboring
- d. #schoolisnotpractical
- e. #other





10,800

Q. What keeps you  
up at night?

A.

Q. What keeps you  
up at night?

A.

Nothing.

Syracuse

Q. What keeps  
up at night

Students are inattentive and  
distracted by social media.

A.

Nothing.

Syracuse

A

Keeping  
inter

Q. What keeps you  
up at night?

Q. What  
up at night?

A.

Keeping my students  
interested in the subject

Syracuse

Syracuse



How can I motivate

A.

A.

A.

Conveying the idea to the students efficiently and successfully.

Q. What keeps you

up at night?  
Q. What keeps you  
up at night?

Q. What  
up at night?

Syracuse

How  
be  
Q. What keeps you  
at night?

Q. What  
up at night?

Q. What keeps you  
up at night?

A.

How  
the  
Not being prepared, students  
not learning.

good grade

Syracuse

A.

How can I motivate

Q. What  
up at night?

Q. What keeps you  
up at night?

Q. What keeps you  
up at night?

How to engage my students.

Chile

How can I motivate

A.

F

A.

Desinteresse!!

Brazil

Q. What keeps you

Q. What keeps you  
up at night?

Q. What  
up at night?

How  
be  
Q. What keeps you  
up at night?

Q. What  
up at night?

you

A.

A.

How boring I am & how little  
will be retained by the student.

Yale



Students and teachers want the same thing.

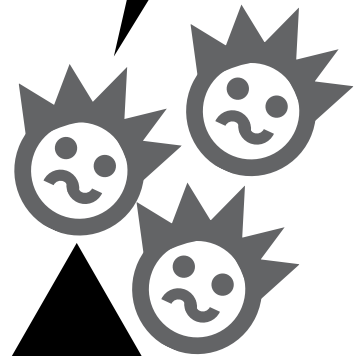
I want you  
engaged!

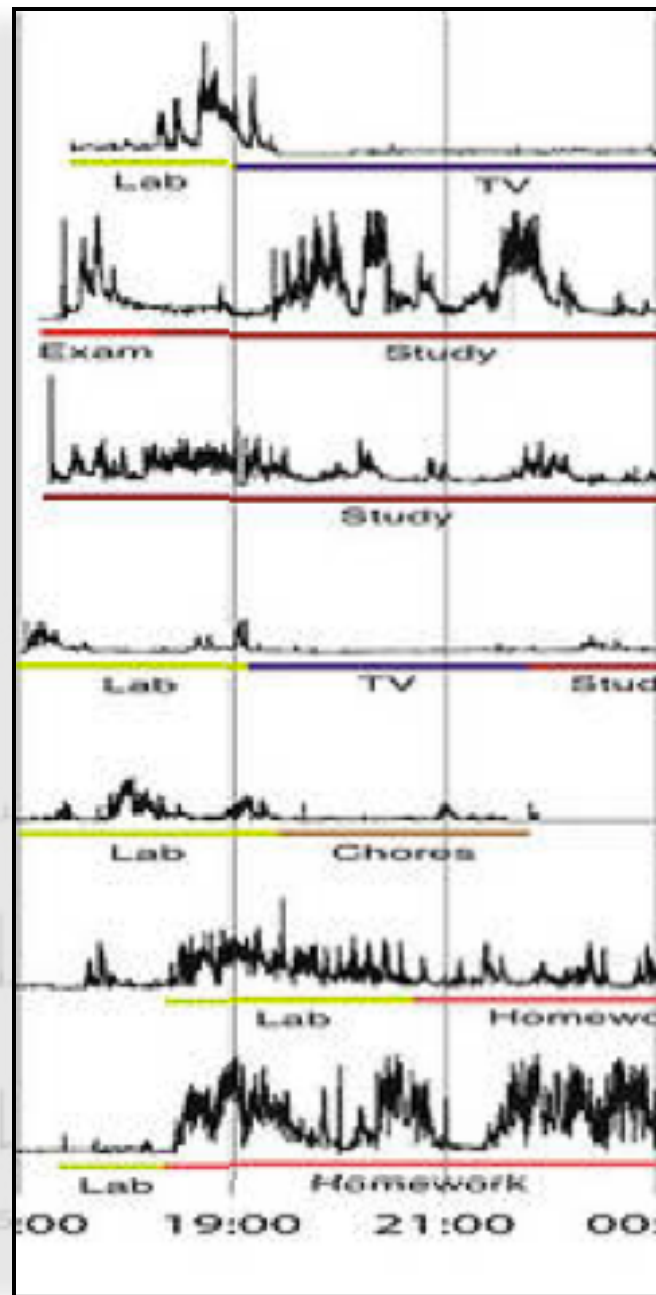


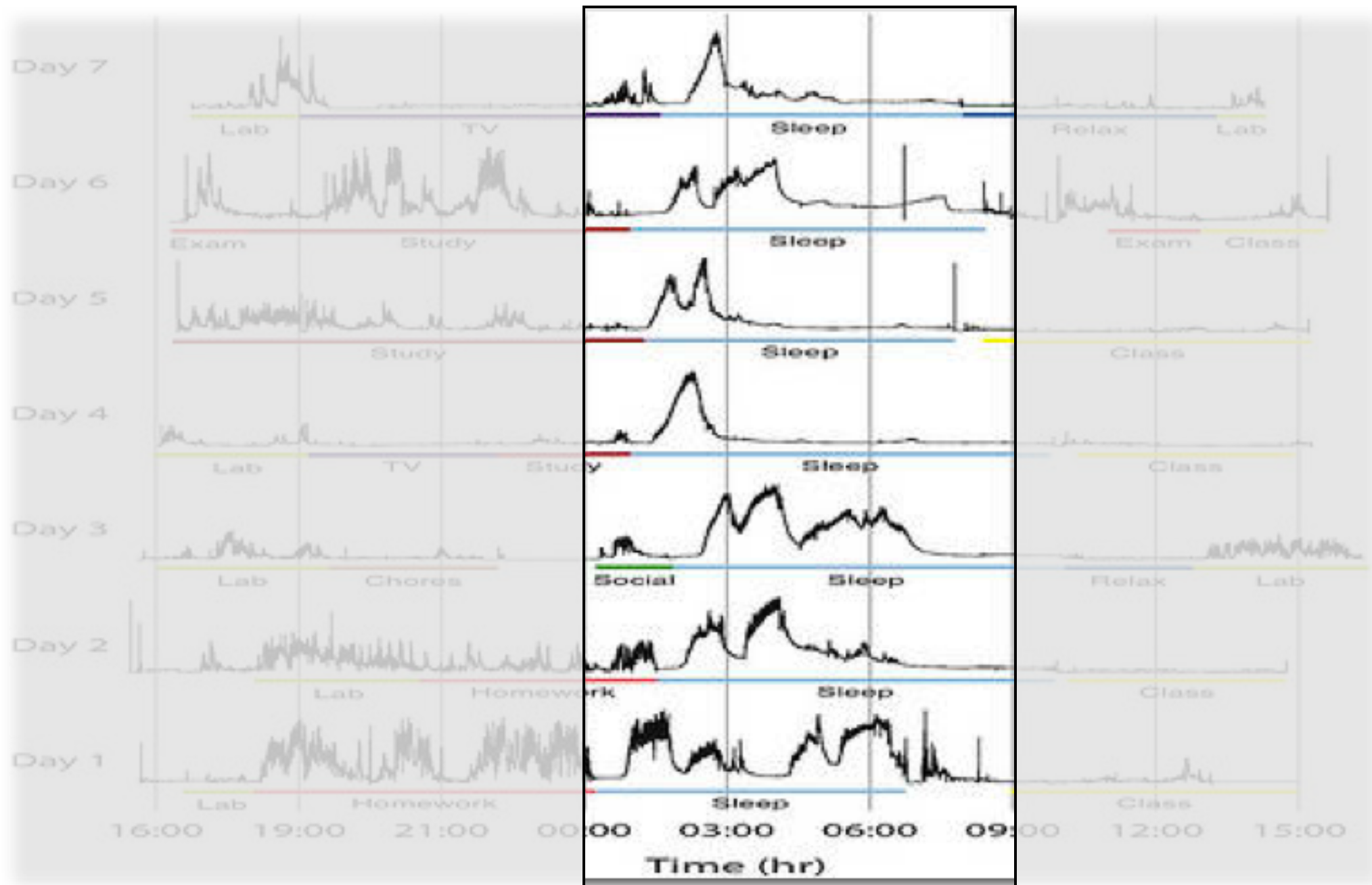
I want you  
engaged!

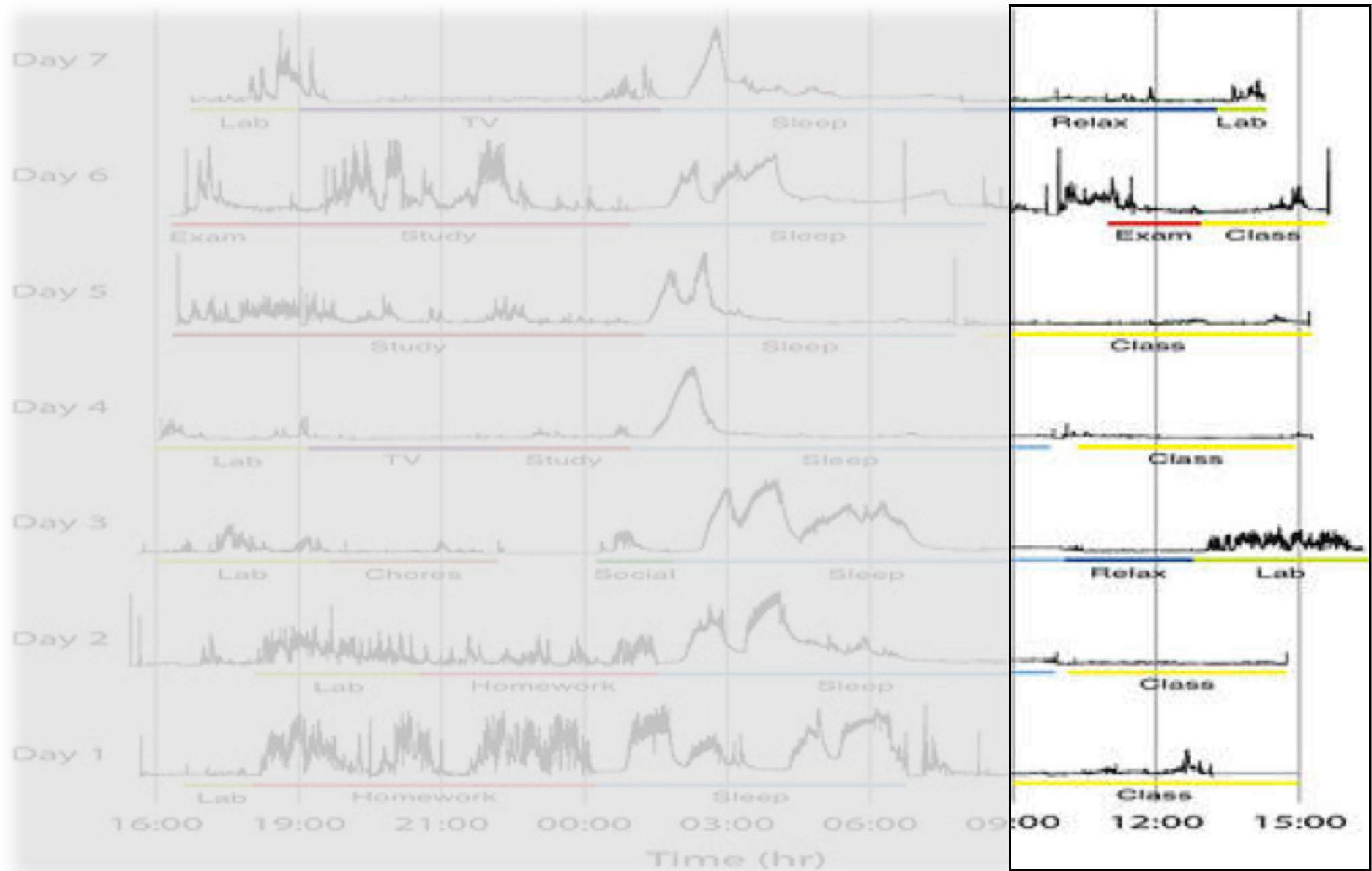


We  
want to be  
engaged!

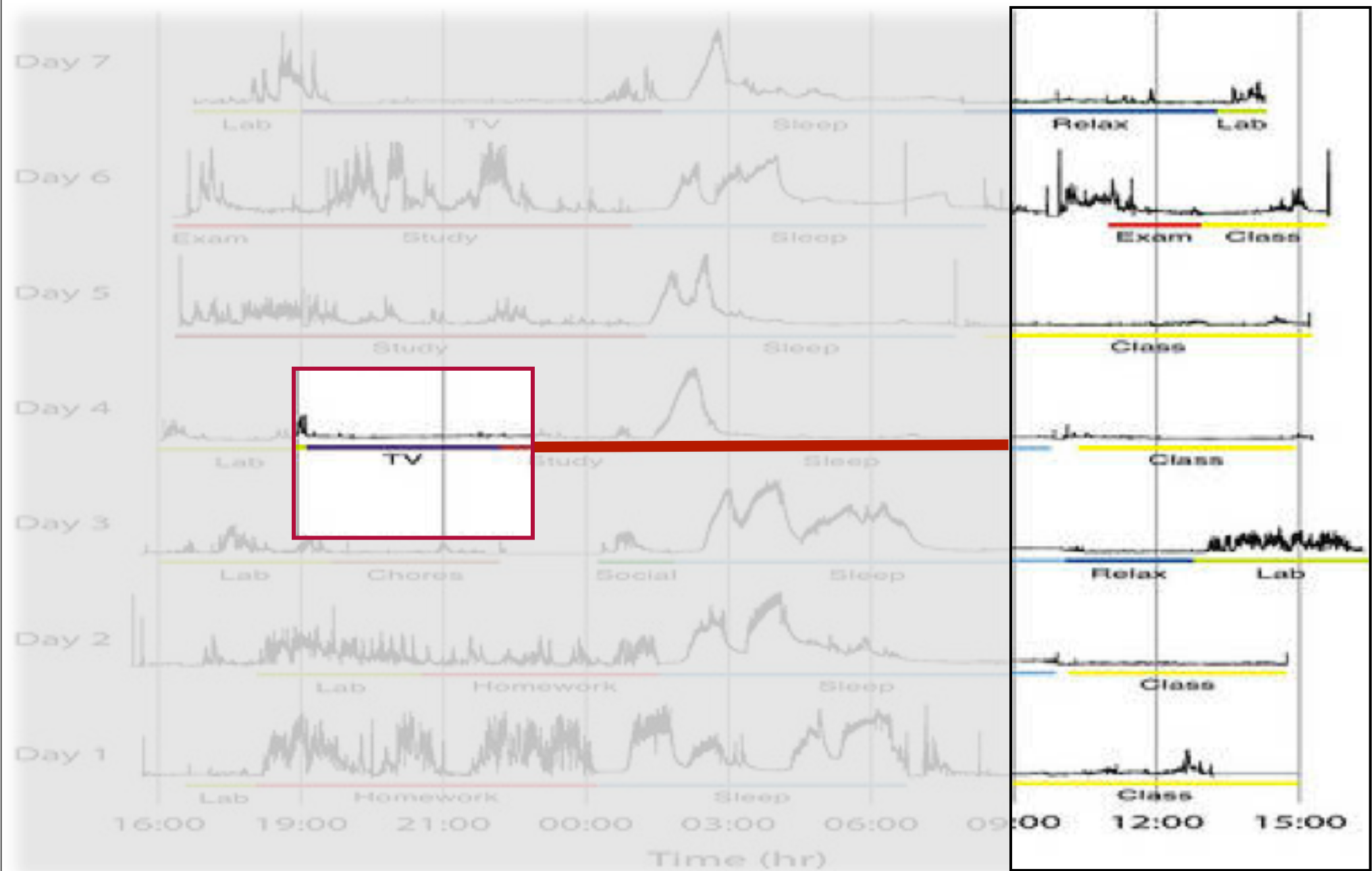




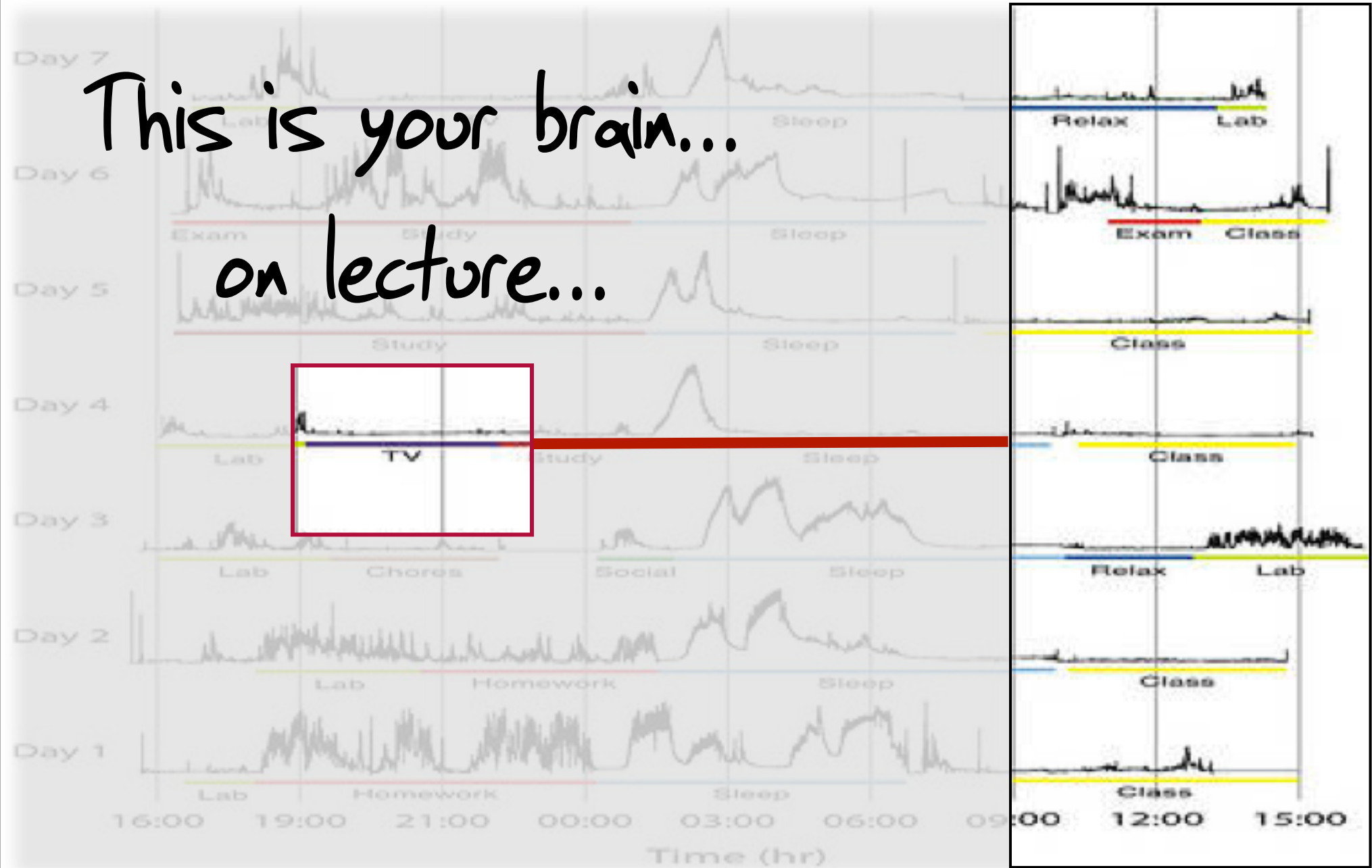








This is your brain...  
on lecture...







# Message



Education doesn't  
have to be this  
way.

# What's going on in this classroom?

- a. teacher left the room
- b. talking about dating
- c. working on a physics problem
- d. this isn't a classroom it's a party





# What's going on in this classroom?

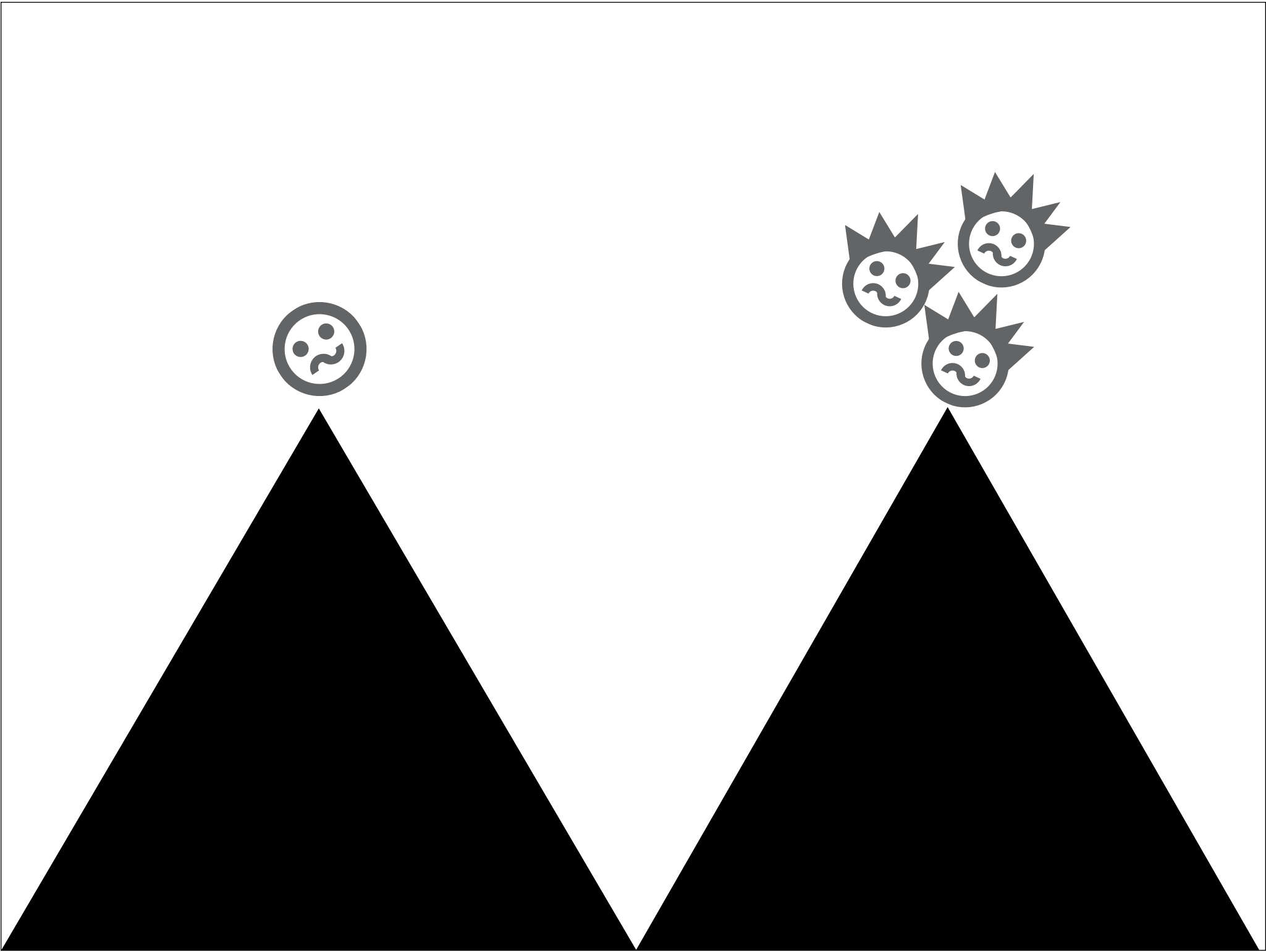
- a. teacher left the room
- b. talking about dating
- c. working on a physics problem
- d. this isn't a classroom it's a party



# Call to Action



**Bridge the gap.**



# The Flipped Classroom

The background of the slide is composed of several geometric shapes and color bands. At the top and bottom are solid black horizontal bars. Between them is a large orange band. On the left side of the orange band, there is a light blue semi-circle. On the right side of the orange band, there is a dark orange square. Below the orange band is a dark blue band, which contains a light blue semi-circle on its left side.

# The Flipped Classroom



A graphic design for a presentation slide titled "The Flipped Classroom". The slide features a black header and footer, an orange main body, and a dark blue bottom section. A light blue semi-circle is on the left, and a light orange semi-circle is on the right. A white tag with the word "BEFORE" is on the left. A solid orange square is on the right.

**BEFORE**

# The Flipped Classroom

Students prepare to  
participate in class activities

**BEFORE**



# The Flipped Classroom

DURING

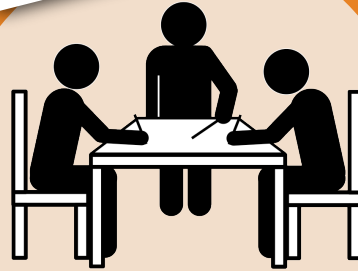
Students prepare to  
participate in class activities

BEFORE



# The Flipped Classroom

**DURING**



Students practice applying key concepts with feedback

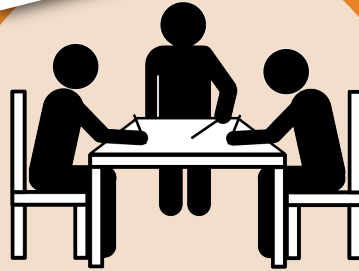
**BEFORE**



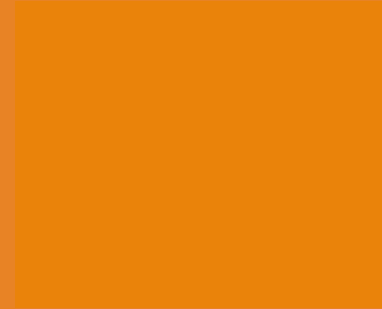
Students prepare to participate in class activities

# The Flipped Classroom

**DURING**



Students practice applying key concepts with feedback



Students prepare to participate in class activities

**BEFORE**

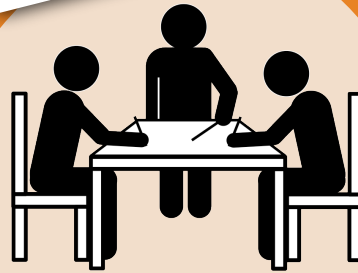


**AFTER**

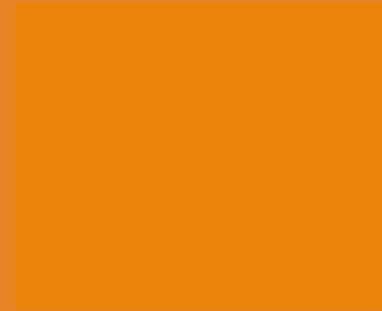


# The Flipped Classroom

**DURING**

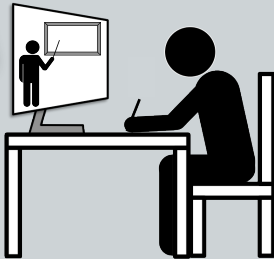


Students practice applying key concepts with feedback



Students prepare to participate in class activities

**BEFORE**



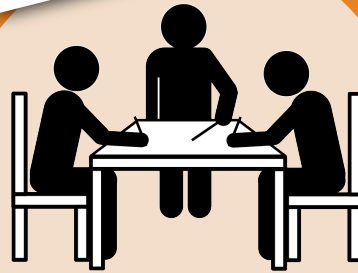
Students check their understanding and extend their learning

**AFTER**



# The Flipped Classroom

**DURING**

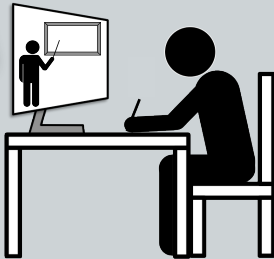


Students practice applying key concepts with feedback

In Class

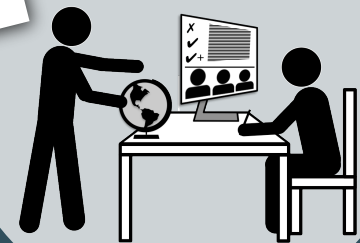
Students prepare to participate in class activities

**BEFORE**

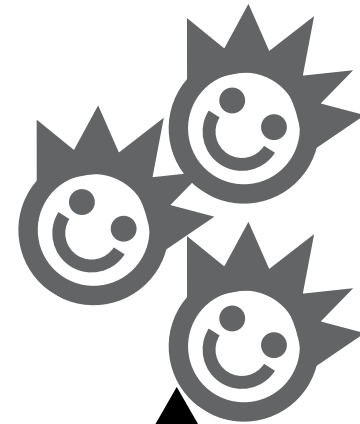


Students check their understanding and extend their learning

**AFTER**



Out of Class



Flipped classrooms

**Based on this definition, do you think you are already flipping your class?**

- a. yes
- b. no
- c. not sure

# Goals for today...

## 3 Essential Questions<sup>?</sup>

### 8 Big Ideas

## 2 Key Characteristics

### + 1 Call to action

---

14 takeaways=

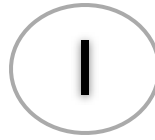
# 1 Framework for Flipped Teaching

3 essential questions

What is a flipped classroom





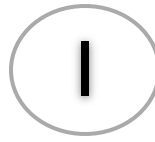


Can flipping be used in one section of course rather than the entire course?

A. Yes

B. No

C. Not sure but look forward to finding out



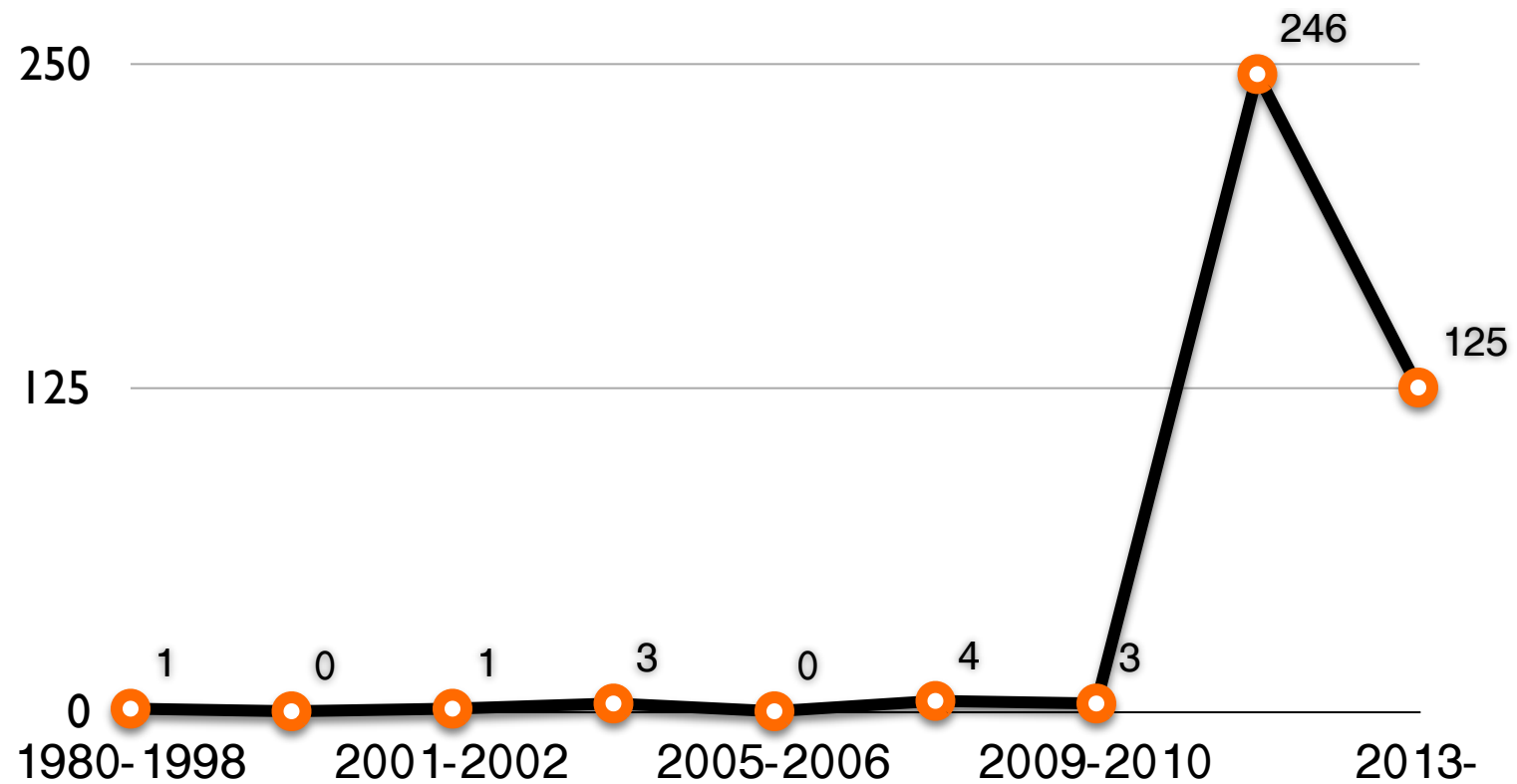
**You can flip one concept or 10.**

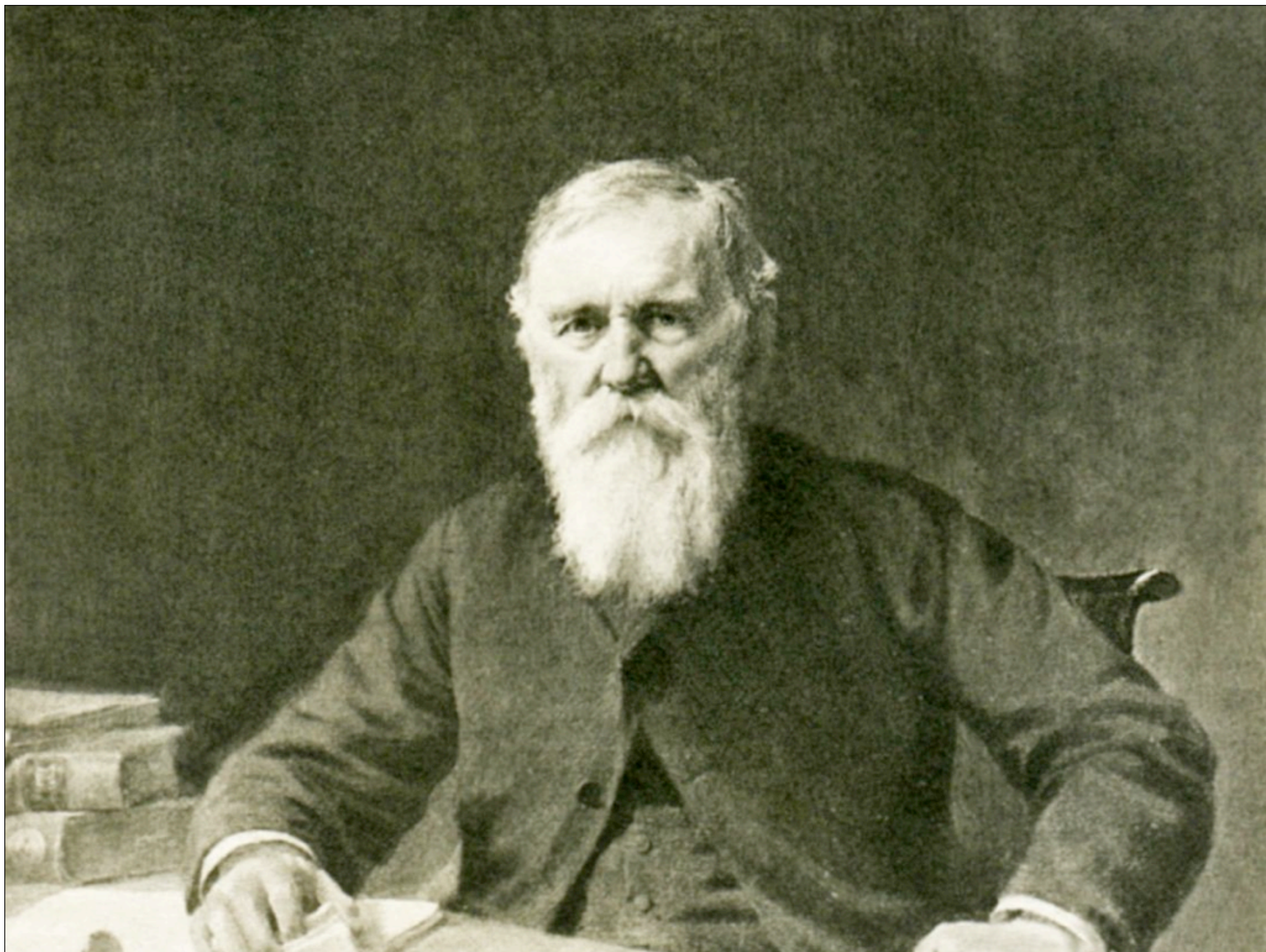
2

Flipped classrooms are the latest edutrend.

- A. True
- B. False
- C. Not sure

○ Number of Google Scholar Hits for “flipped classroom”









2

**The term is new, but the idea is not.**

"Given that students are asked to evaluate us as instructors, how do you avoid giving the impression that you are largely absent in a flipped class?"



3

Flipped classrooms will gradually replace faculty with computers.

- A. True
- B. False
- C. Not sure







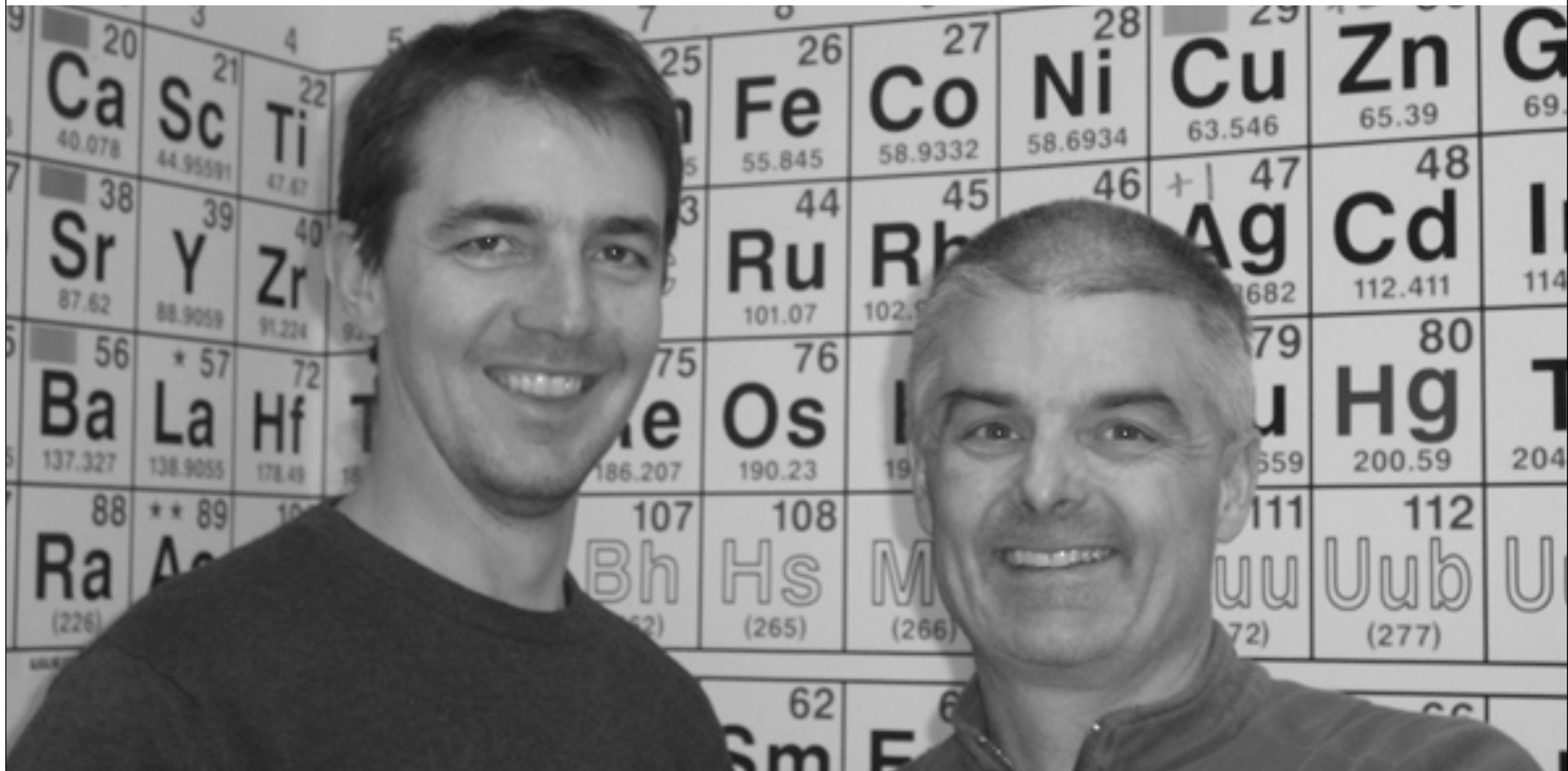
3

Replaces sage on the stage with a guide on side.

**Students not having access to the Internet is a major barrier in a flipped class.**

- A. True
- B. False
- C. Not sure

“Flipping the classroom is...[a] **mindset** redirecting attention away from the teacher and putting attention on the learner and the learning.”



4

**Flipped classrooms are about pedagogy not technology.**

# Flipped 101 Model



Out-of class activity is lecture video  
or “screencast”

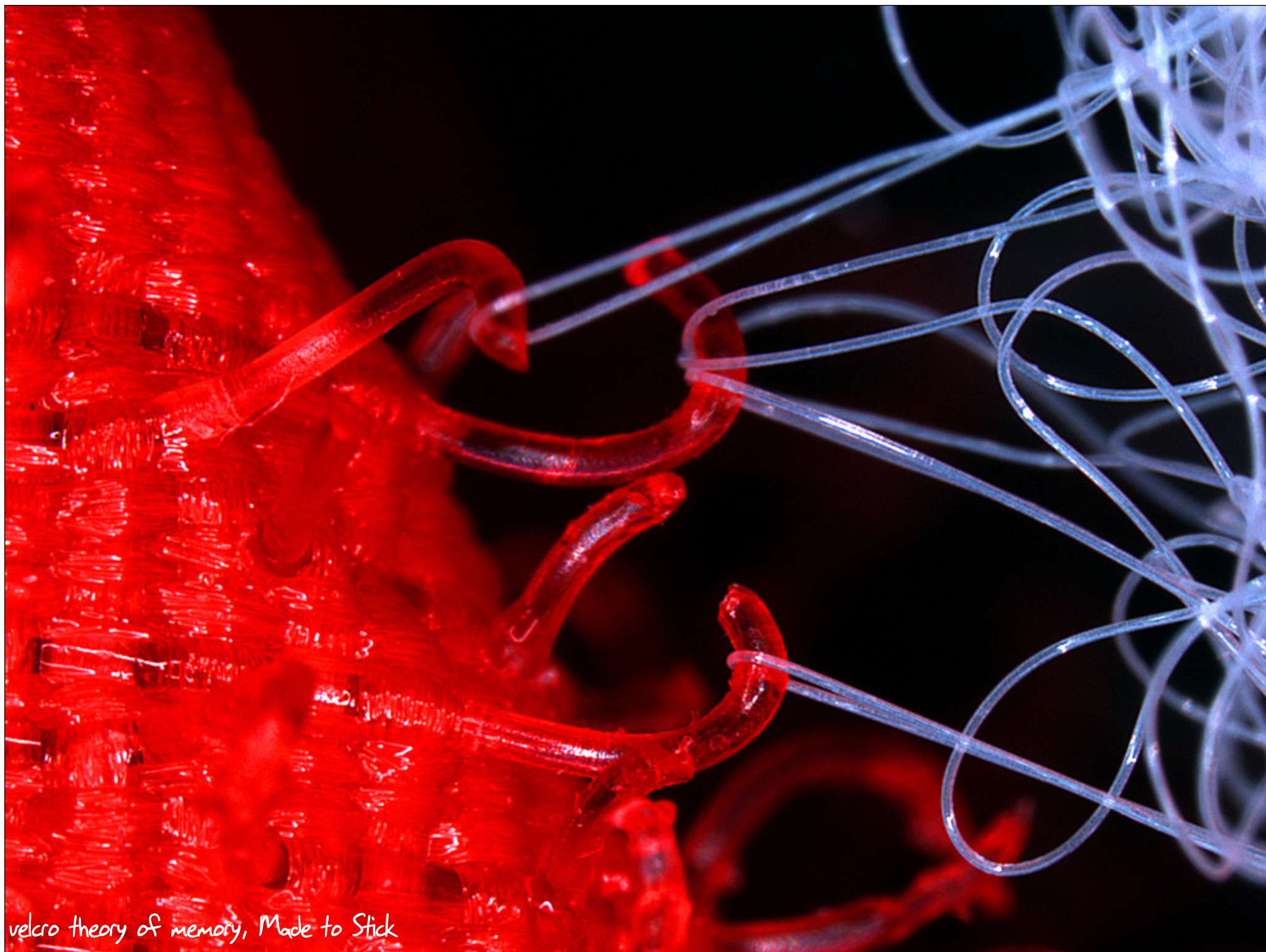
**In-class activity is homework**



Why should I flip my classroom●

In a flipped class, students get **first exposure** before class.

And spend time **applying** material in class.



velcro theory of memory, Made to Stick

5

**Students will love not having lecture in class.**

- A. True
- B. False
- C. Not sure

5

**You should tell students you are flipping your classroom.**

- A. True**
- B. False**
- C. Not sure**





**Sarah Forthun** @sarahforthunn

yeah this **flipped classroom** thing is **bullshit**

Expand ↩ Reply ↻ Retweet ★ Favorite ⋮ More



🔒 @tayloo0r

fu... this **flipped class** **bullshit**

Expand

8h

5

**Students will resist flipped learning.**

5

**Students will resist learning.**







6

Flipped classrooms means no more lecture.

- A. True
- B. False
- C. Not sure

Students want to be spoon  
fed so they don't have to  
think about it.

Syracuse

"Lecture is a comfort blanket  
for students."



6

**You can lecture a little, it might help with student resistance.**

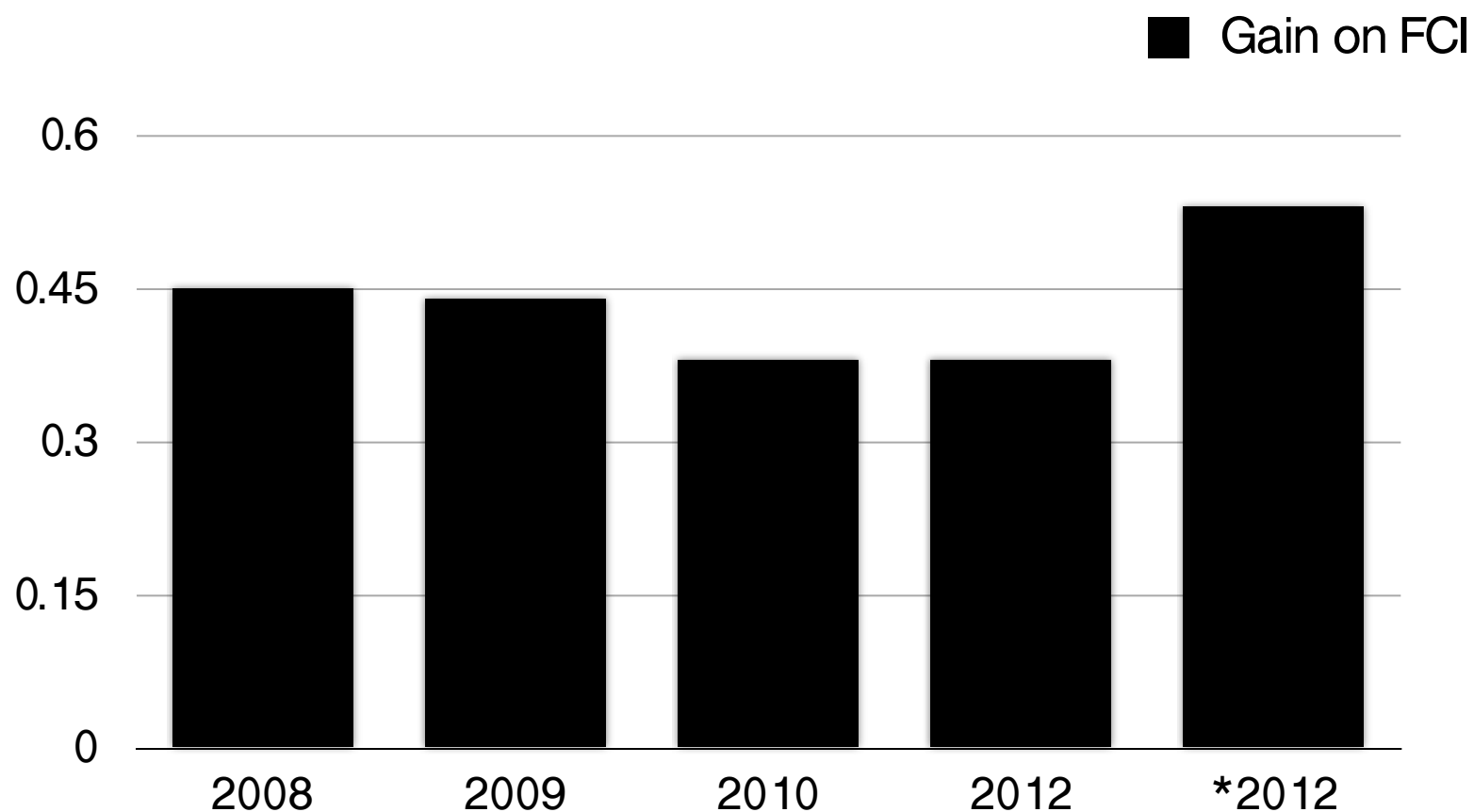


Any proven effectiveness of  
the technique in undergraduate  
engineering courses?

Syracuse



# Normalized Gain on FCI, Class Averages



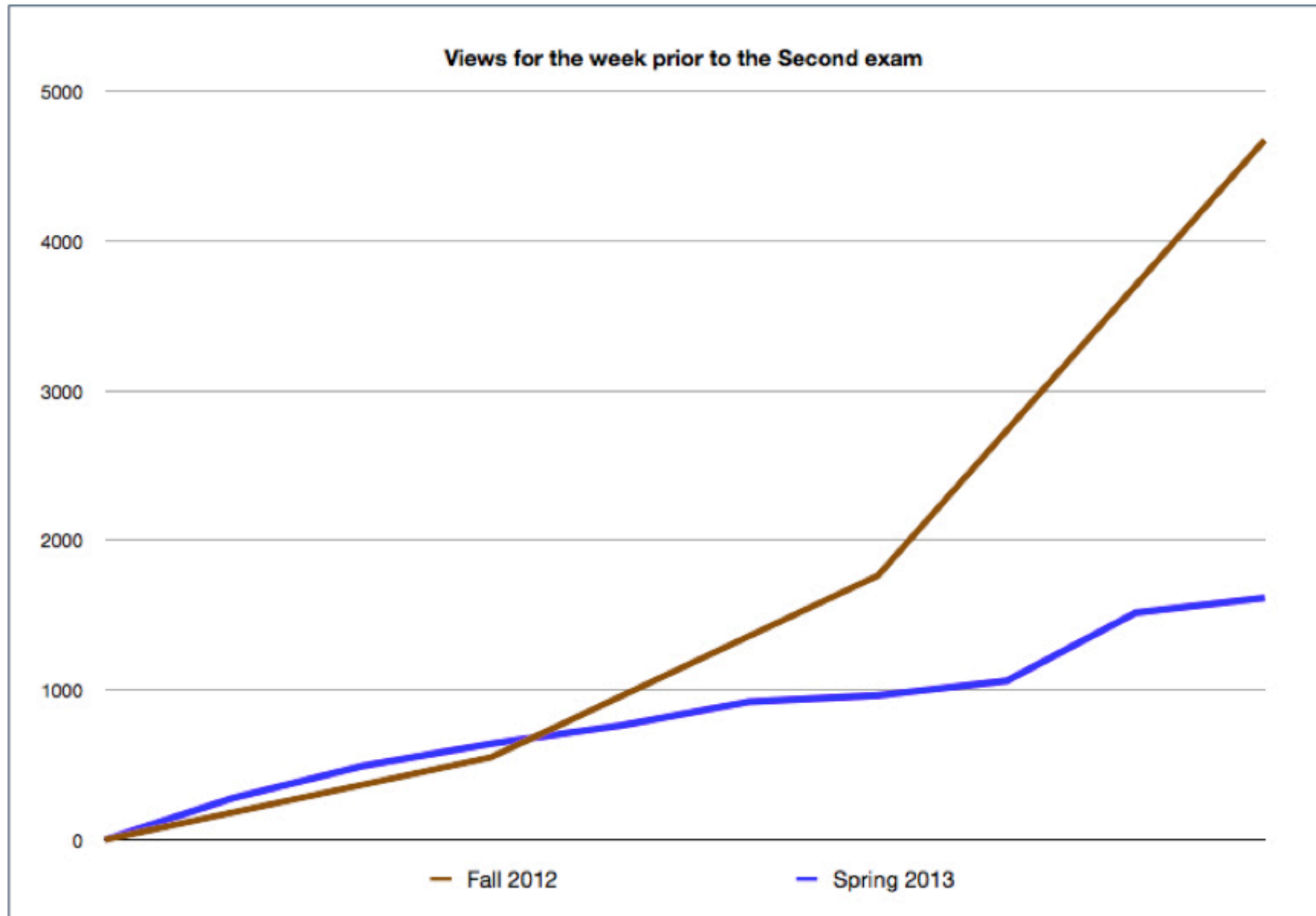
How do I flip my class



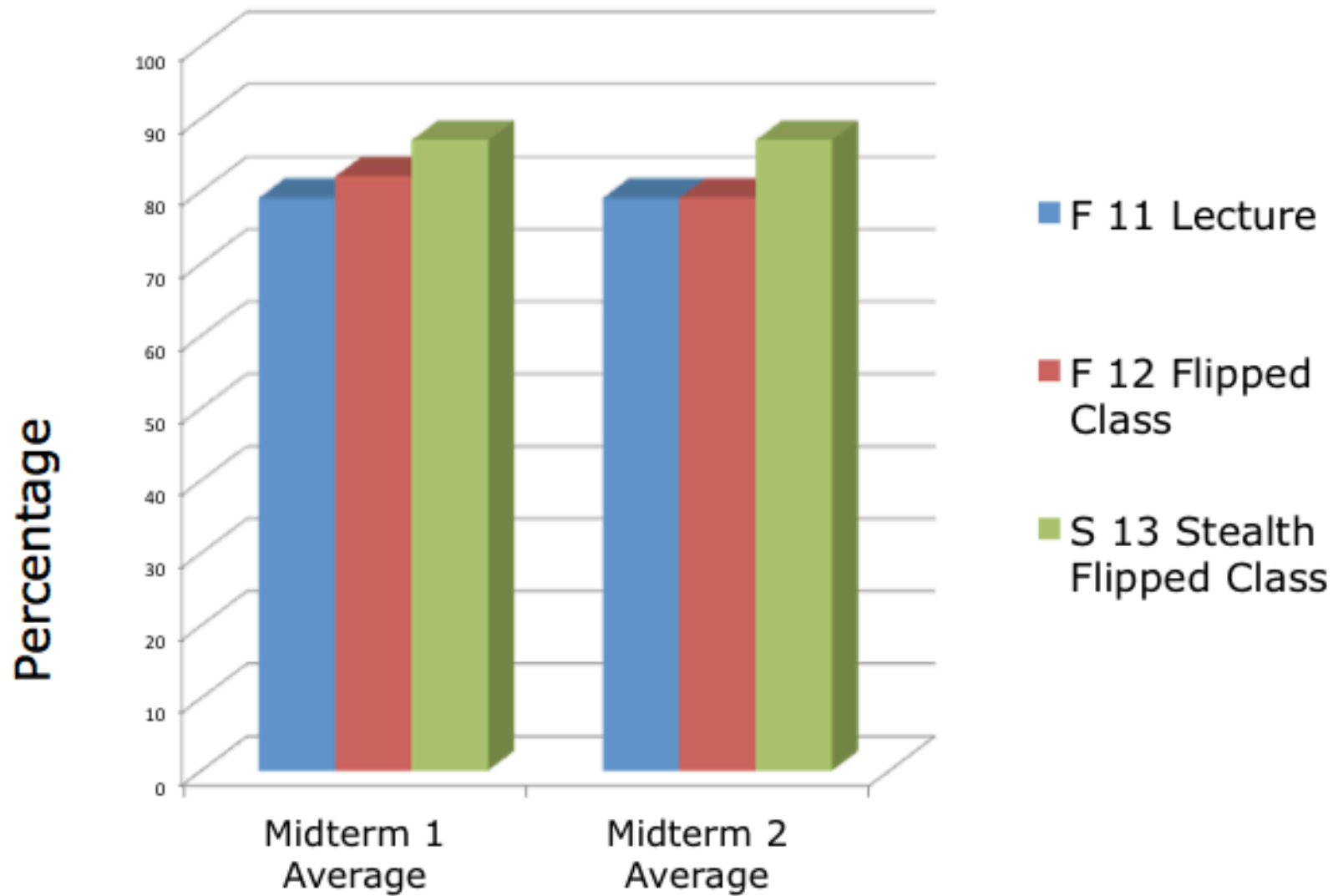
7

**My students will not do out-of-class work, even with credit for doing so.**

- A. True
- B. False
- C. Not sure



Graph courtesy of @jenebbeler



Graph courtesy of @jenebbeler



7

**Formula: 9 quizzes, some lecture, no mention of the world flipped.**







If you assess it...  
they will come



7

If you assess it, they will come.

**You should create your own content for out of-class activities.**

- A. True
- B. False
- C. Not sure

# Ted-Ed

## Flip your class with proven methods

LESSON CREATED BY **JULIE SCHELL** USING **TED**Ed Beta  
VIDEO FROM **BokCenter** YOUTUBE CHANNEL

### Let's Begin...

What is a **flipped classroom**, anyway? In a traditional flipped class, teachers capture lectures on video students view those videos as "homework." In class, instructors help students apply concepts learned at home and guide more complex work, rather than lecturing. Peer instruction, developed by Eric Mazur at Harvard University is one way to do something innovative with your flip.



Watch

Think

Dig Deeper

Discuss

...And Finally



Flip This Lesson



[Create Your Own Lesson](#) | [Send Us Feedback](#) | [Flag As Inappropriate](#)

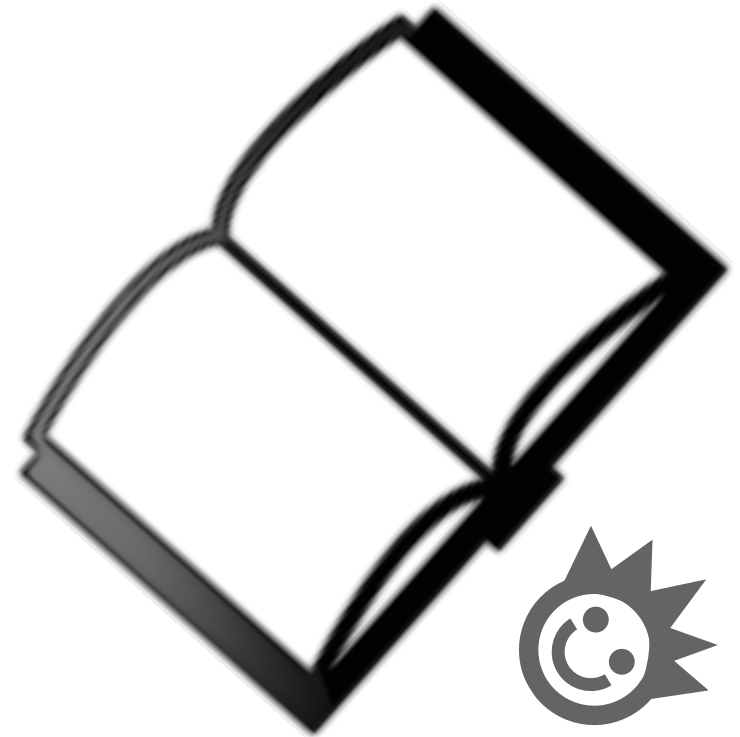
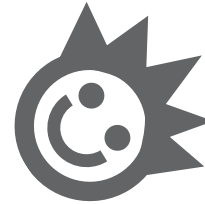
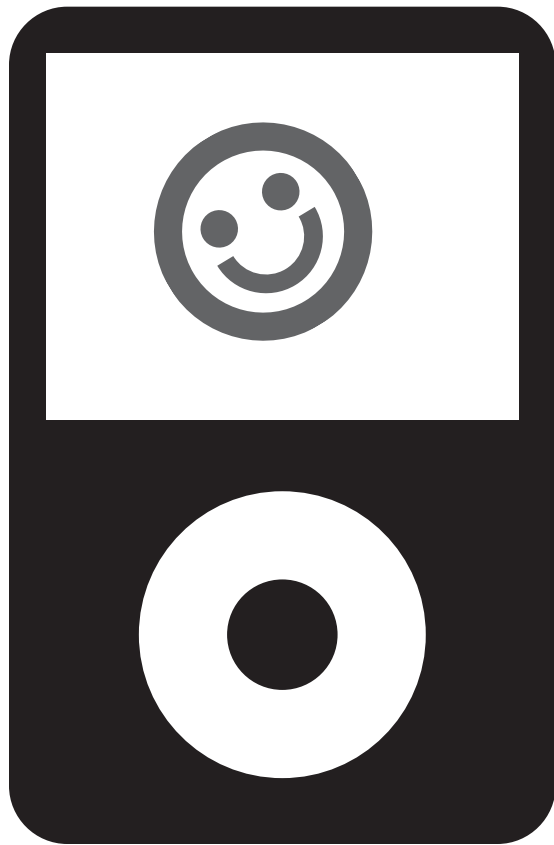
**TED**Ed Beta

**There are many ways to flip a class  
and no one right way.**

## **2 Key Characteristics**

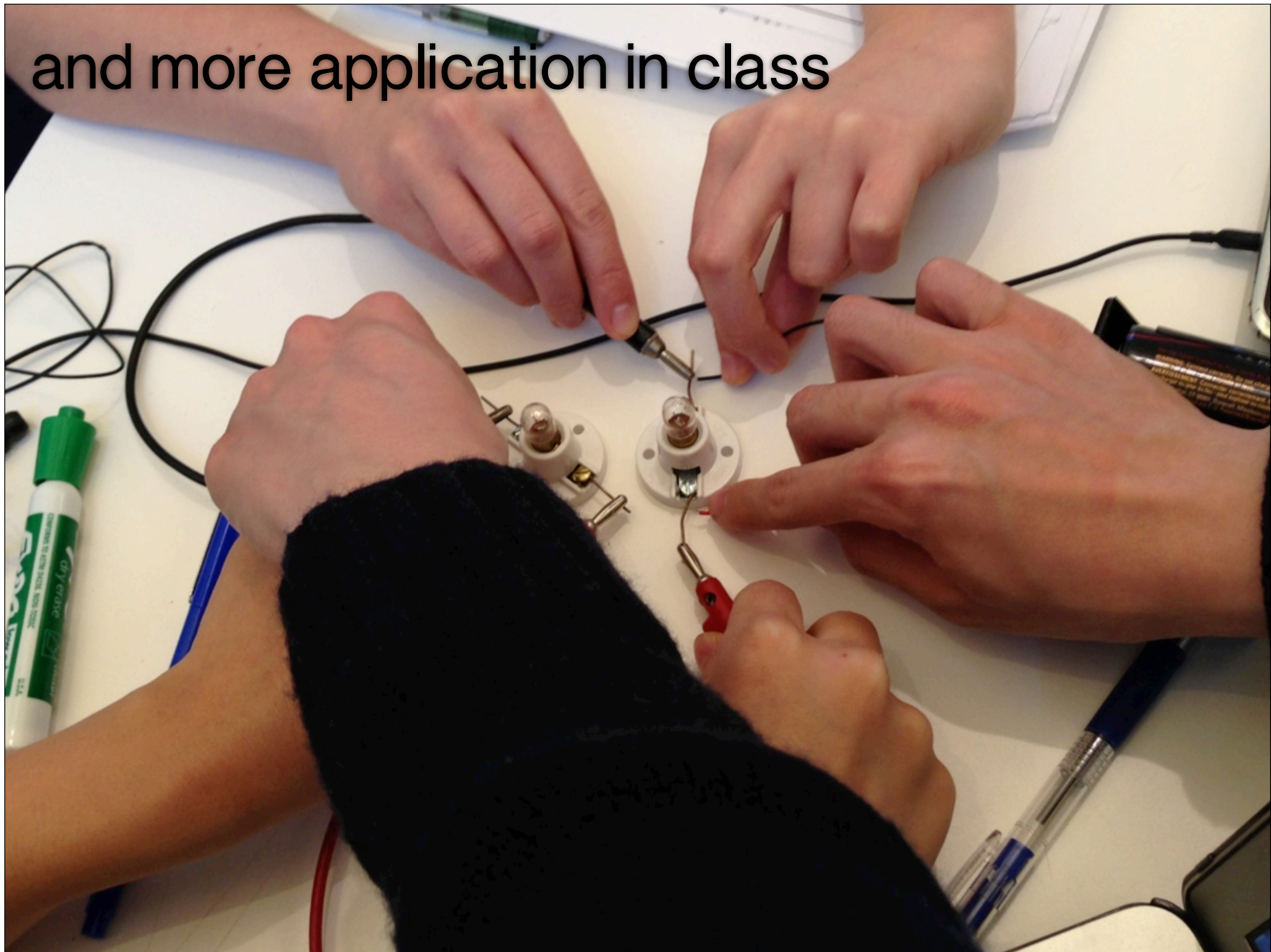


# Has more first exposure before class





and more application in class



# Goals for today...

3 Essential Questions?

8 Big Ideas

+ 2 Key Characteristics

1 Call to action

---

14 takeaways

# 1 Framework for Flipped Teaching

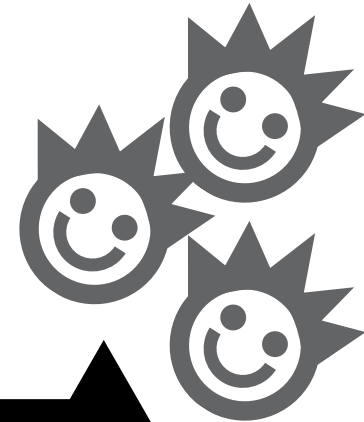
bonus

**Flipped classrooms are a panacea.**

- A. True**
- B. False**
- C. Not sure**



What do you want me to do, Julie?

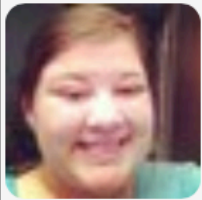


Flip your classroom

# Call to action- FLIP

|   |   |
|---|---|
| F | Find a concept to flip                      |
| L | Lift coverage / first exposure out of class |
| I | Incentivize out of class work               |
| P | Privilege application activities in class   |





**brianna girlie** @bripaigegirlie

33 mins

I hate school. Ihateschool. I HATE school. I h8 school. I hate skool.  
lh8skool. I. hate. school. Eye h8 skool. I HATE SCHOOL. **#ihateschool**

Expand   ↩ Reply   ↻ Retweet   ★ Favorite   ⋮ More



**Tyson\_Awesome** @tegrinse614

6 hrs

today I developed my own proof for **pythagorean's** theorem. woooo  
yeah baby **#genius**

Expand



**Follow now!**

[blog.peerinstruction.net](http://blog.peerinstruction.net)



Hundreds of tips, resources, guides.



# Acknowledgements

## PEOPLE

Eric Mazur

Ives Araújo

Cassandra Alvarado

Brian Lukoff

Dan Meyer

Nancy Duarte

Jonathan Metrick

## BOOKS

Flip Your Classroom

Peer Instruction a User's Manual

Just-in-Time Teaching

Slide!Dology



[www.julieschell.com](http://www.julieschell.com)

@julieschell

