

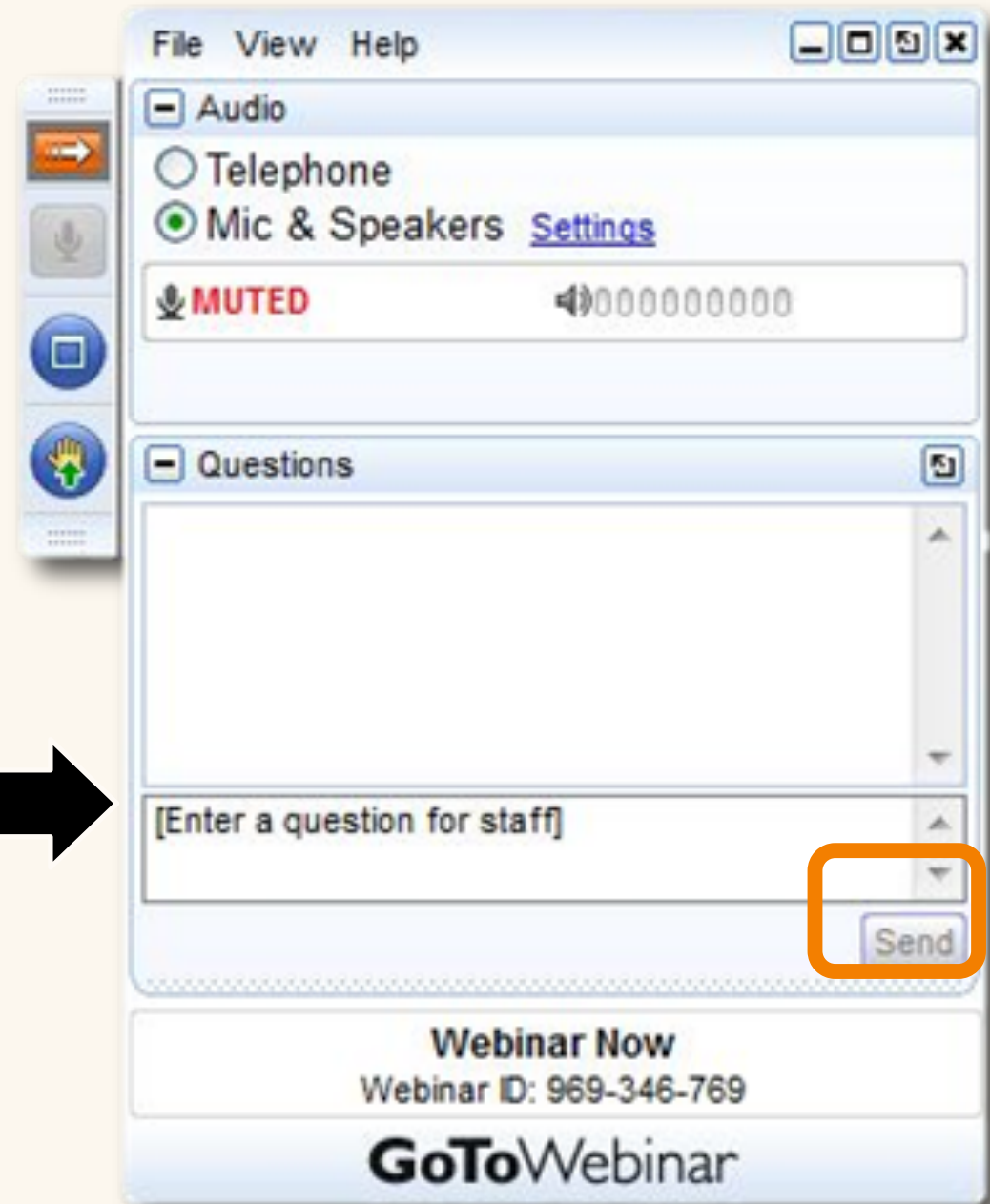
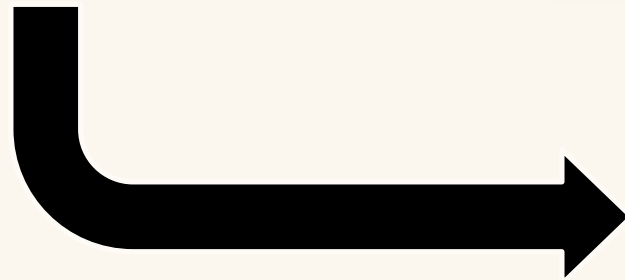
# **Flipped Classrooms 101—An Introduction to Flipped Learning**



**Julie Schell**

**August 20, 2013**

# Questions & Answers





Follow me on  
twitter  
@julieschell

- This is a basic introduction to flipped classrooms for new or less-experienced flippers
- **Intermediate or Advanced flippers** - HELP out by responding to participant questions, sharing resources, & sharing your own flippin-ovations in the chat box as much as possible at [Today'sMeet -bit.ly /flipit 101](https://bit.ly/flipit101)
- This is NOT a training on creating or finding videos, for help with vids check out my quick start guide - [bit.ly /makegoodvids](https://bit.ly/makegoodvids)
- All slides will be available at [bit.ly /pearsonflip](https://bit.ly/pearsonflip)

# Today'sMeet

## Listen

Welcome!

10 minutes ago by Julie Schell

<http://today.io/RlfP>

[transcript](#) | [projector](#) | 

## Talk

What's your name?

Join

By submitting this form you agree to the [Privacy Policy](#) and [Terms](#).

[bit.ly / flipit 101](http://bit.ly/flipit101)



## Listen

**Welcome everyone!**

less than a minute ago by Julie Schell

**Welcome!**

11 minutes ago by Julie Schell

<http://today.io/RlfP>

[transcript](#) | [projector](#) | 

## Talk

Message:

132

**Welcome!**

**Say**

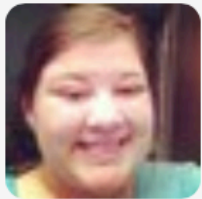
[bit.ly / flipit 101](http://bit.ly/flipit101)



I



Education

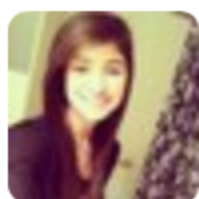


**brianna girlie** @bripaigegirlie

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**

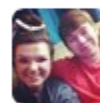
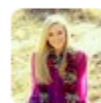
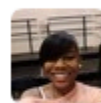
Collapse ↩ Reply ↻ Retweet ★ Favorite ⋮ More

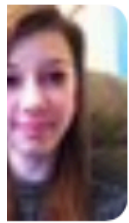
**11**

RETWEETS

**3**

FAVORITES





**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

School is so boring [#ihateschool](#)

Expand

4h





**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.

**The number of hours students spend in a system they hate.**

**10,800**

Today'sMeet [bit.ly / flipit 101](https://bit.ly/flipit101)

What #hashtag best describes your schooling experience?

#ihateschool

#iloveschool\*(really)

#schoolisboring

#schoolisnotpractical

#mixedfeelings

Q. What keeps you  
up at night?

A.

A.

How do I keep my students engaged in the  
class?

Q. What keeps you  
up at night?

Q. What  
up at night?



Q. What  
up at night?

Q. What keeps you

Q. What keeps you  
up at night?

How can I motivate

A.

A.

How to better connect with  
students (who are easily  
distracted...)

A.

ASU

A.

How can I motivate

Finding new ways to engage  
students in class and outside  
the classroom.

Dominican University

Q. What keeps you  
up at night?

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.*

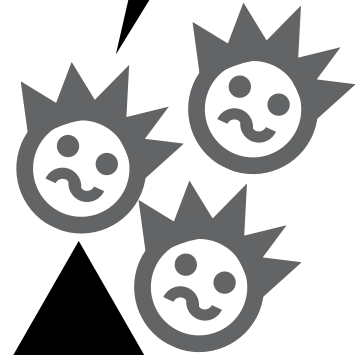




*I want you  
engaged.*



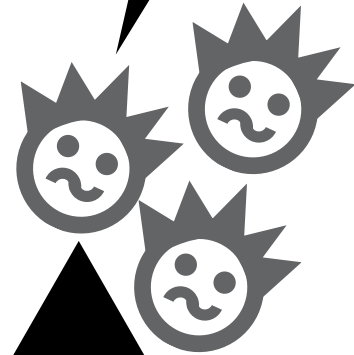
*We  
want to be  
engaged!*

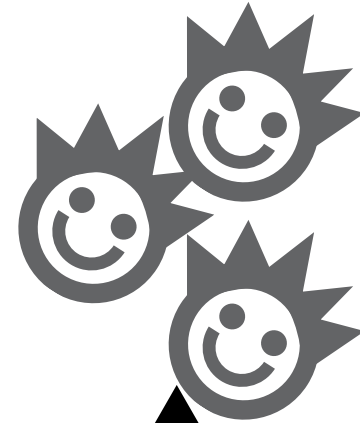


I want you  
engaged.

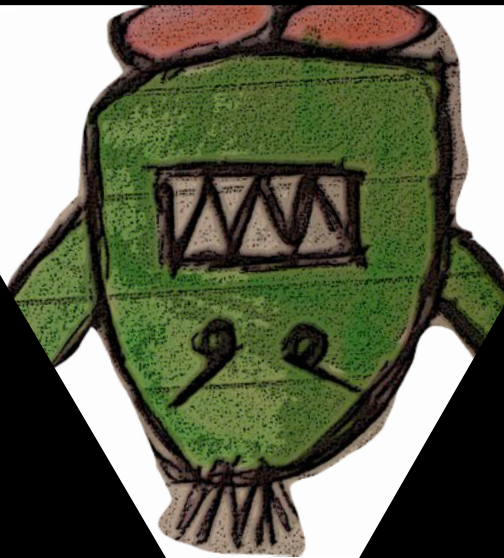


We  
want to be  
engaged!

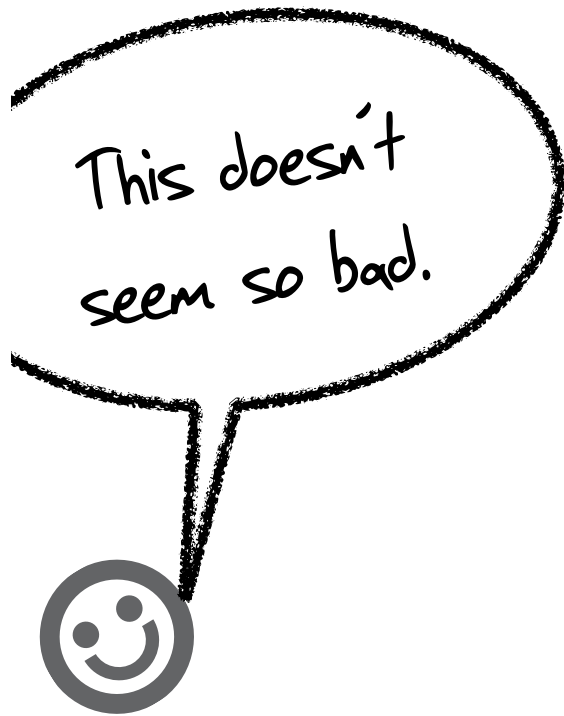




# Flipped Classrooms



# My goals for this webinar...



# My goals for this webinar...

This doesn't  
seem so bad.



I've been doing  
this for decades but  
didn't know it.



# My goals for this webinar...

This doesn't  
seem so bad.



I've been doing  
this for decades but  
didn't know it.



I already do this.  
I'm going to innovate  
and help others!



# 3 essential questions about flipped classrooms





Big ideas about  
flipped classrooms

10



# What is a flipped classroom

# The Flipped Classroom

Students prepare to  
participate in class activities

**BEFORE**

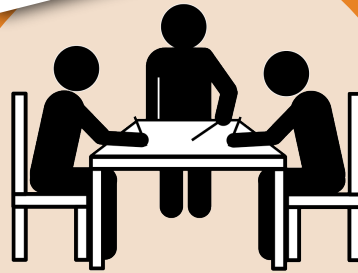


Out of Class

created by Josh Walker

# The Flipped Classroom

**DURING**

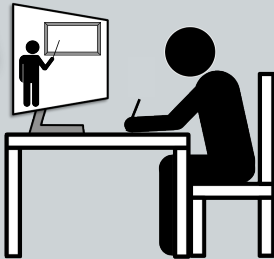


Students practice applying key concepts with feedback

In Class

Students prepare to participate in class activities

**BEFORE**

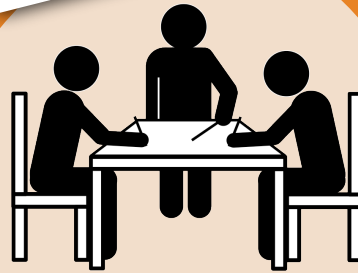


Out of Class

created by Josh Walker

# The Flipped Classroom

**DURING**

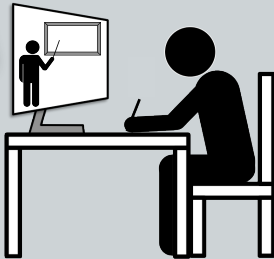


Students practice applying key concepts with feedback

In Class

Students prepare to participate in class activities

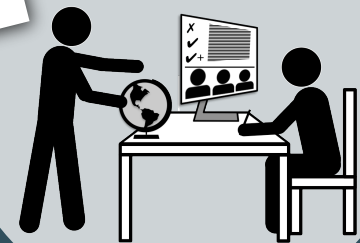
**BEFORE**



Out of Class

**AFTER**

Students check their understanding and extend their learning



created by Josh Walker

# The Flipped Classroom

**DURING**



Students practice applying key concepts with feedback

In Class

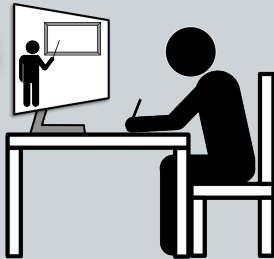
GOAL

GOAL

GOAL

Students prepare to participate in class activities

**BEFORE**



Out of Class

**AFTER**

Students check their understanding and extend their learning



created by Josh Walker

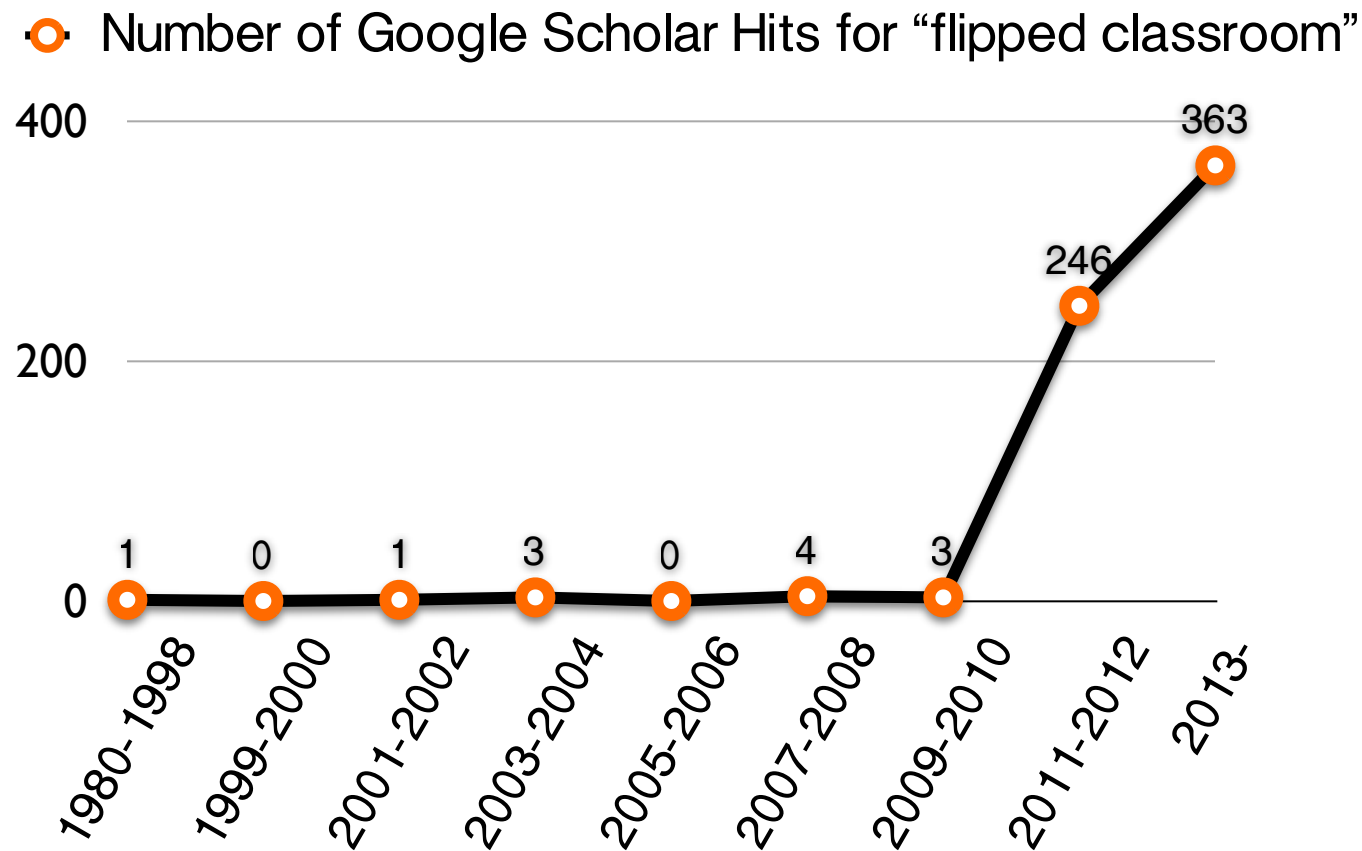
# Myth 1: You must flip your entire class

►Big idea: A flipped classroom is an approach that can be implemented gradually *or* all at once.

FLIP

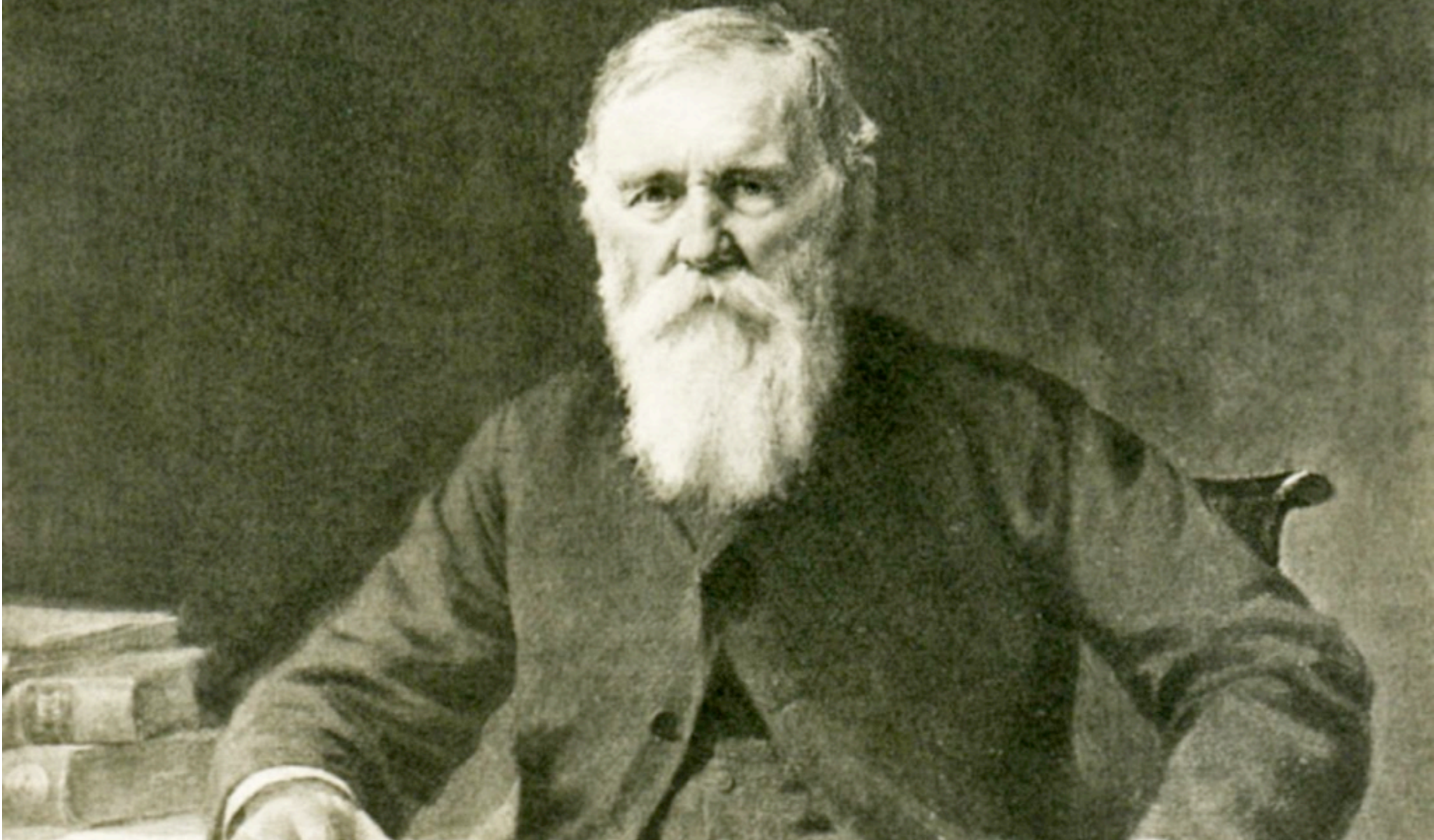
- 1 concept
- 1 chapter
- 1 unit
- 1 lab
- 1 course
- 1 school

# Myth 2: Flipped classrooms are the latest edutrend.





# Christopher Columbus Langdell, 1890s





# School at Athens, Antiquity



# Myth 2: Flipped classrooms are the latest edutrend.

►Big idea: Flipped classrooms= new term, old idea.

- 1st modern flipped classroom developed in 1890s
- Eric Mazur, Peer Instruction 1990s
- Seminal publication in 2000 Lage et al.
- Jonathan Bergmann and Aaron Sams, 2007

**Myth 3: A flipped class replaces faculty with computers and videos.**



















# Myth 3: A flipped class replaces faculty with computers and videos.

►Big idea: Flipped classrooms are not about technology, they are about pedagogy.

- Computers & videos are not needed to flip your class
- Main approach - lift coverage of some content out of the class, privilege content application in-class, find ways to motivate continued learning after class
- Common description: Moves sage on the stage, to guide on the side.

# Myth 4: Students without internet or tech will suffer if I flip my class.

►Big idea: Flipped classrooms are a “mindset” that directs attention away from the teacher and redirects it to students.\*

- Computers & videos are not needed to flip your class
- You can flip your class without the Internet
- Use readings
- Use flash drives
- Loan devices
- Have students read or watch for first 15 mins of class

\*Bergmann and Sams, 2012

*“Recording lectures and having students view them before class is not an option for me. So I would like more ideas about ways to flip the classroom that do not just involve pre-recorded lectures. “*

*“Really, record lectures? Sounds like a lot of work. More work than a non-flipped class.”*

**Today'sMeet**

## How could you flip your class without technology?

[bit.ly / flipit 10 1](http://bit.ly/flipit101)

*“Are pre recorded lectures the only option or will posting notes w PPT and questions be as effective?”*

*“How do I flip my classroom when most of my students don't have computers at home?”*

Why should I flip my classroom ?

**Myth 5: Flipped classrooms are fads not tied to how people actually learn.**

Study these letters, don't write them down.

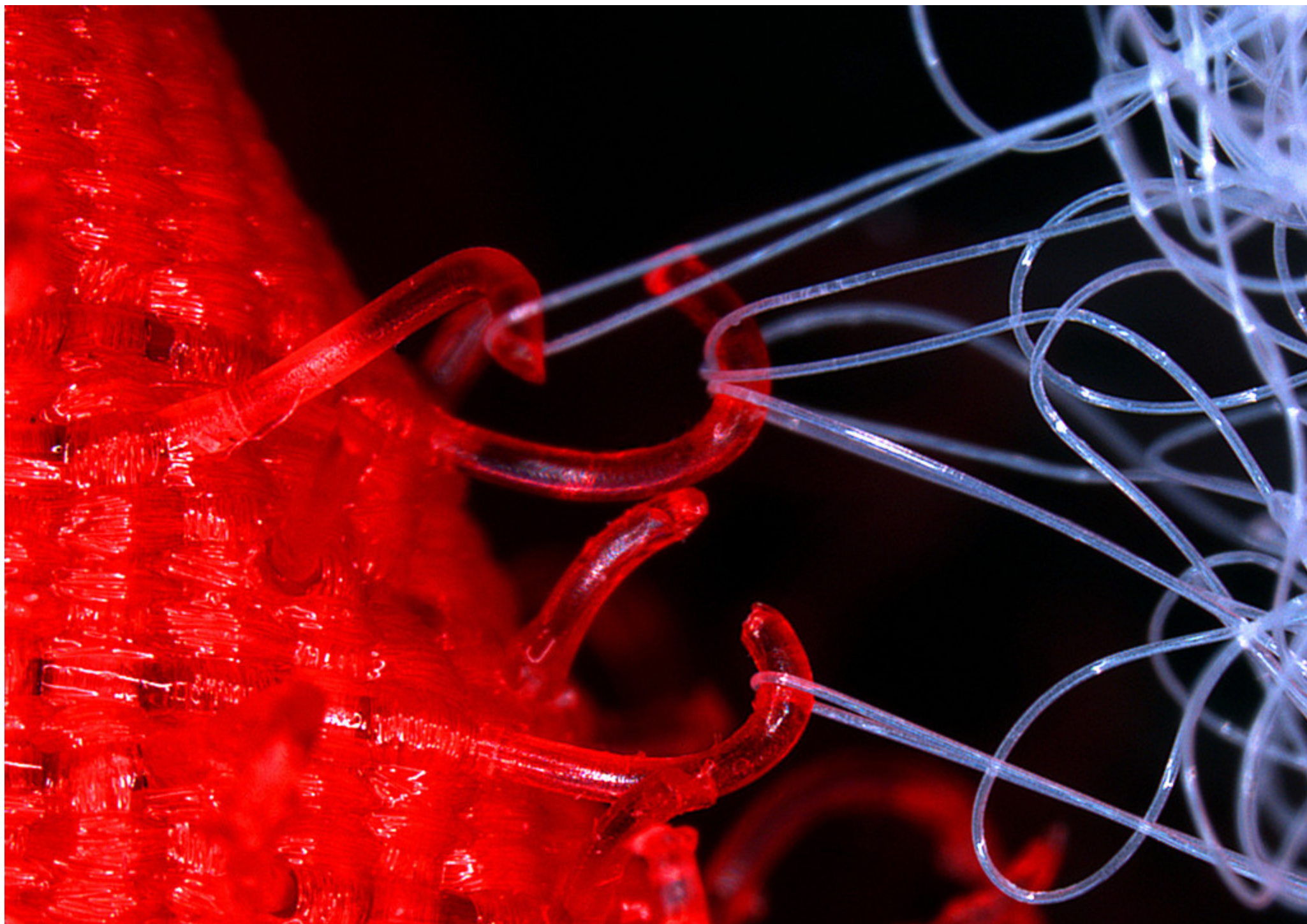
J FKFB INAT OUP SNA SAI RS

Study these letters, don't write them down.

Study these letters, don't write them down.

JFK FBI NATO UPS NASA IRS





Today'sMeet [bit.ly / flipit 101](https://bit.ly/flipit101)

Think of something you know really well, something you are an expert in.

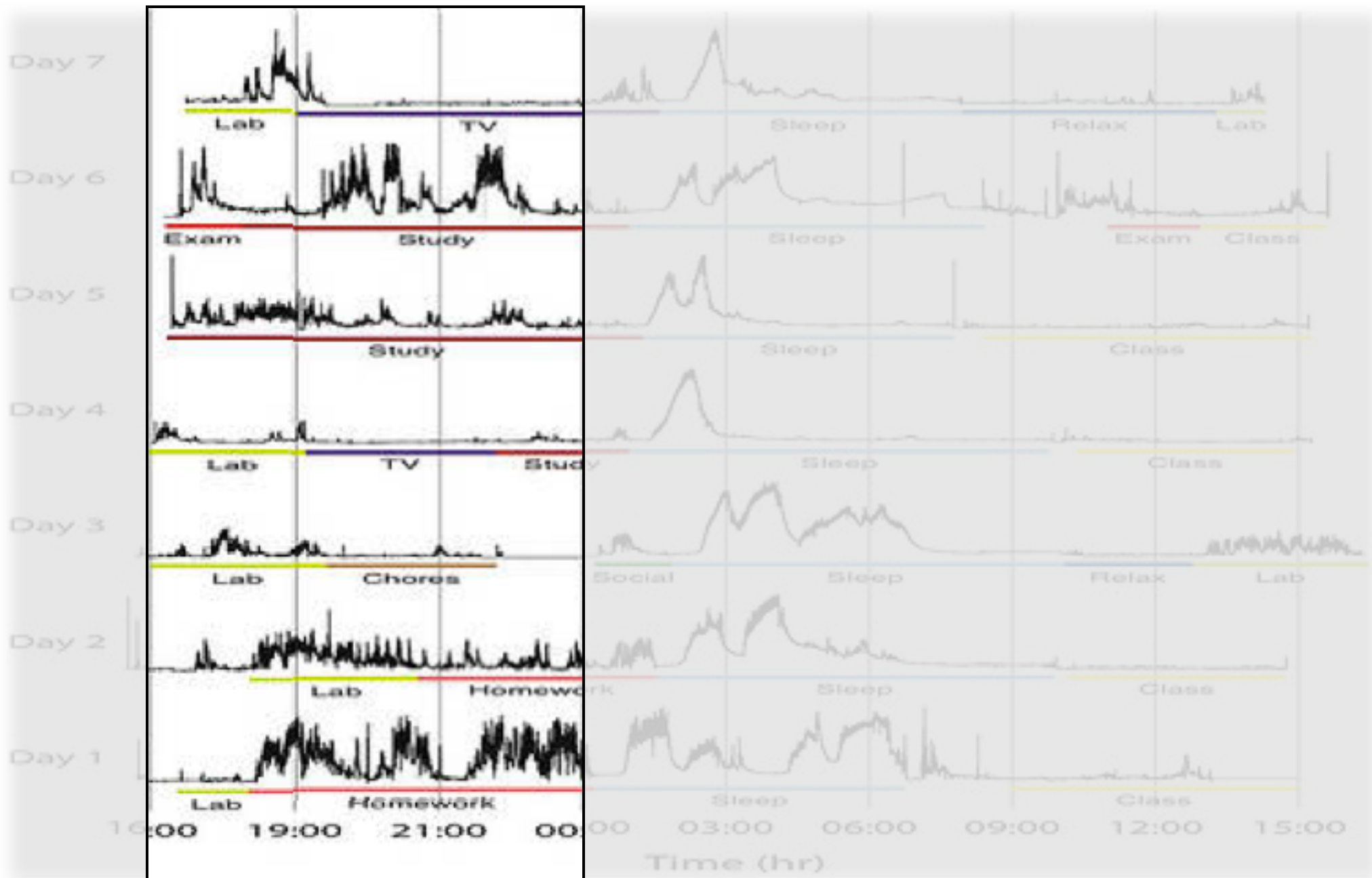
How did you learn that so well?

**By doing it! Practicing it! = Application.**

# Bloom's Taxonomy

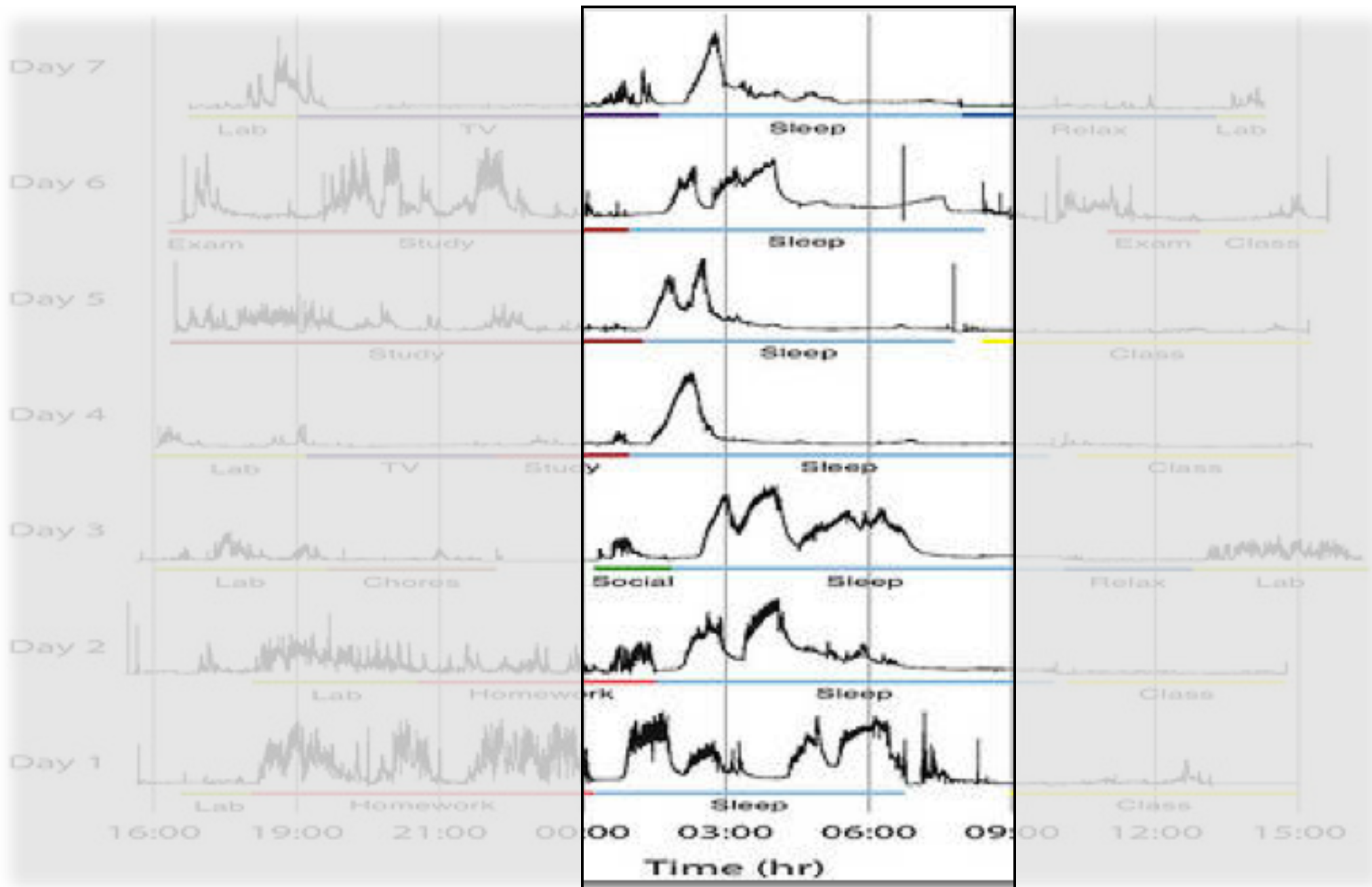
Traditional Arrangement						
Instructional Design	In-class		Out-of-class			
Bloom's Taxonomy	Remember	Understand	Apply	Analyze	Evaluate	Create

created by Josh Walker

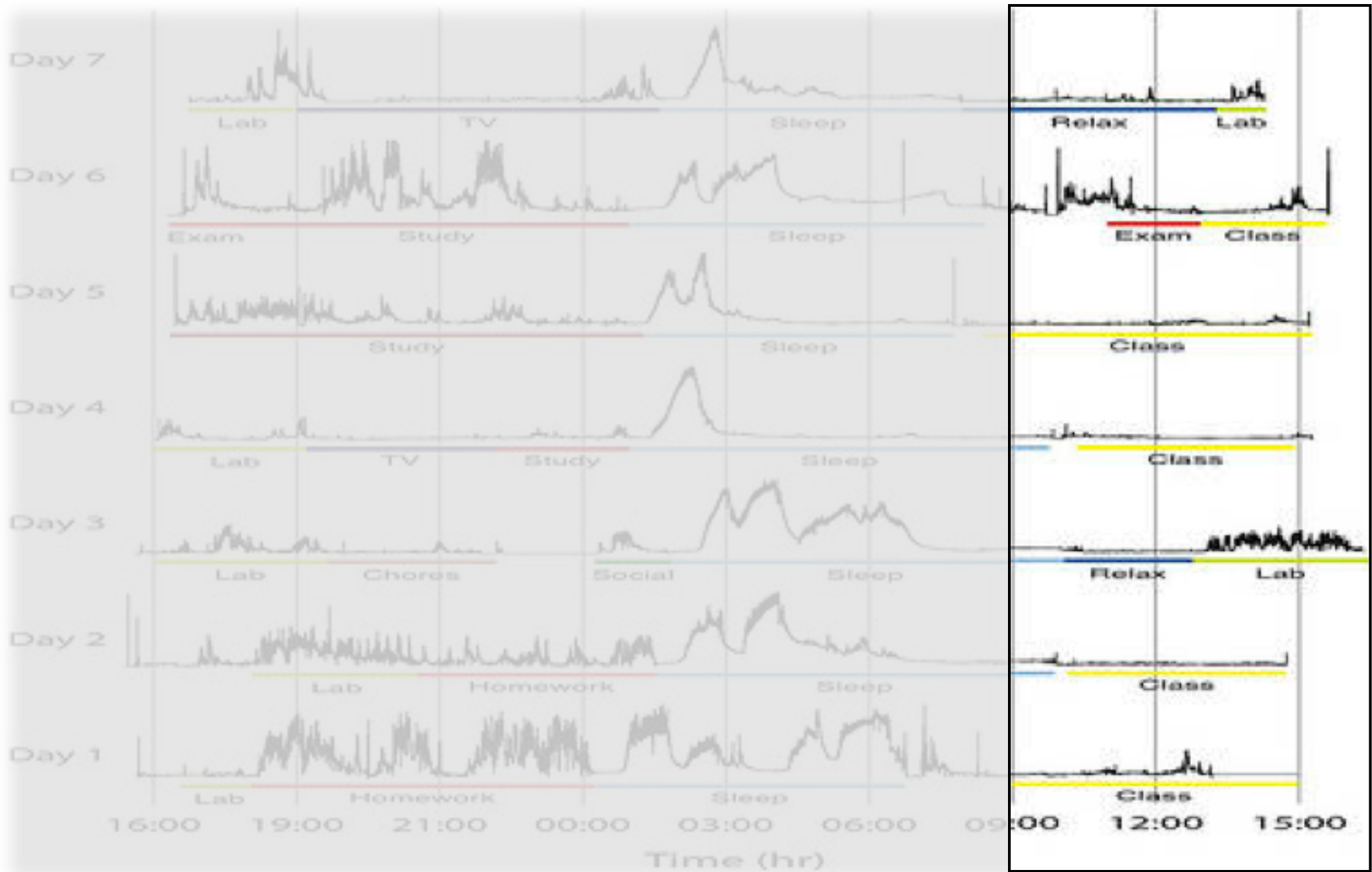


IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING, VOL. 57, NO. 5, MAY 2010

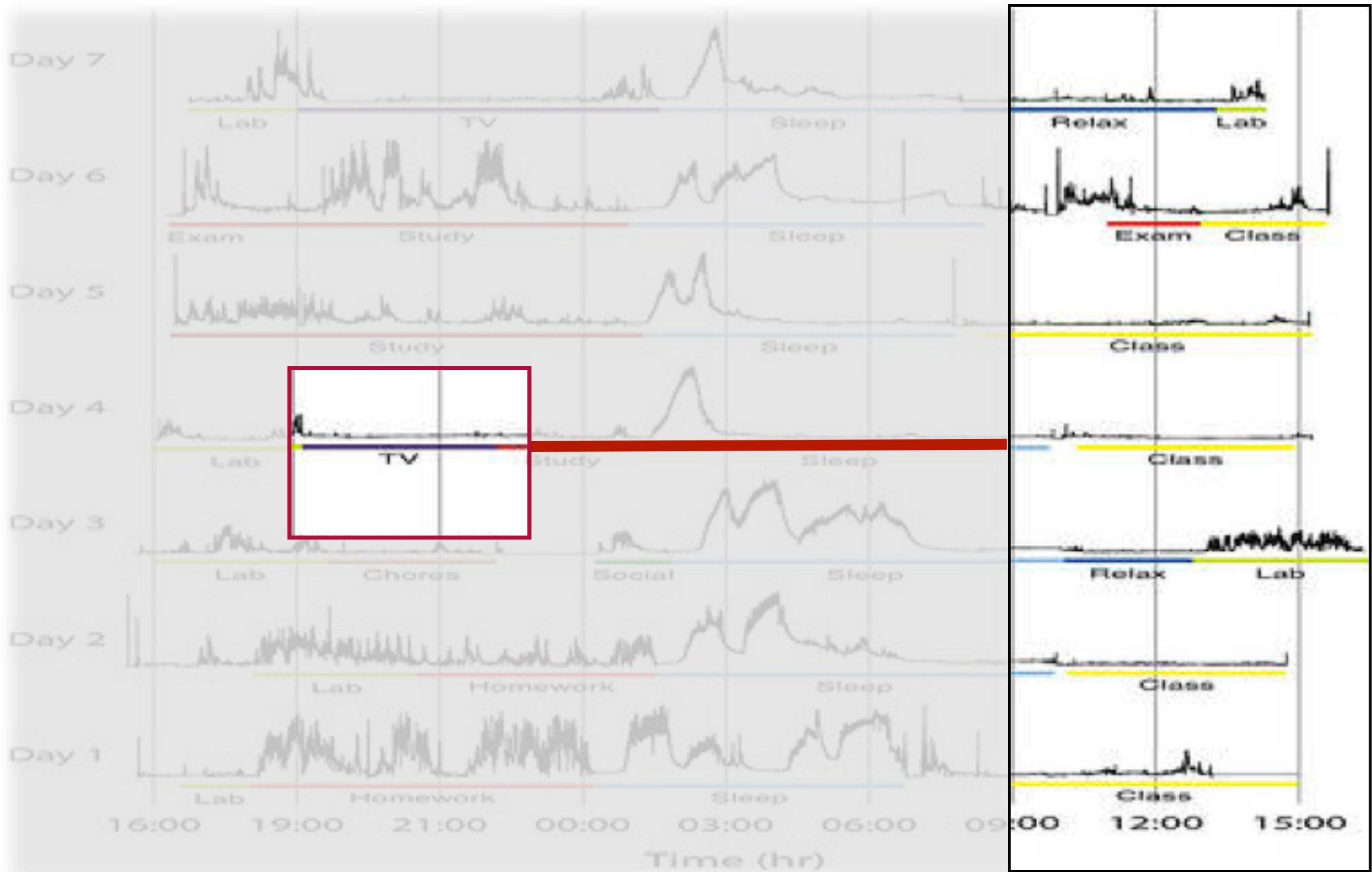




IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING, VOL. 57, NO. 5, MAY 2010

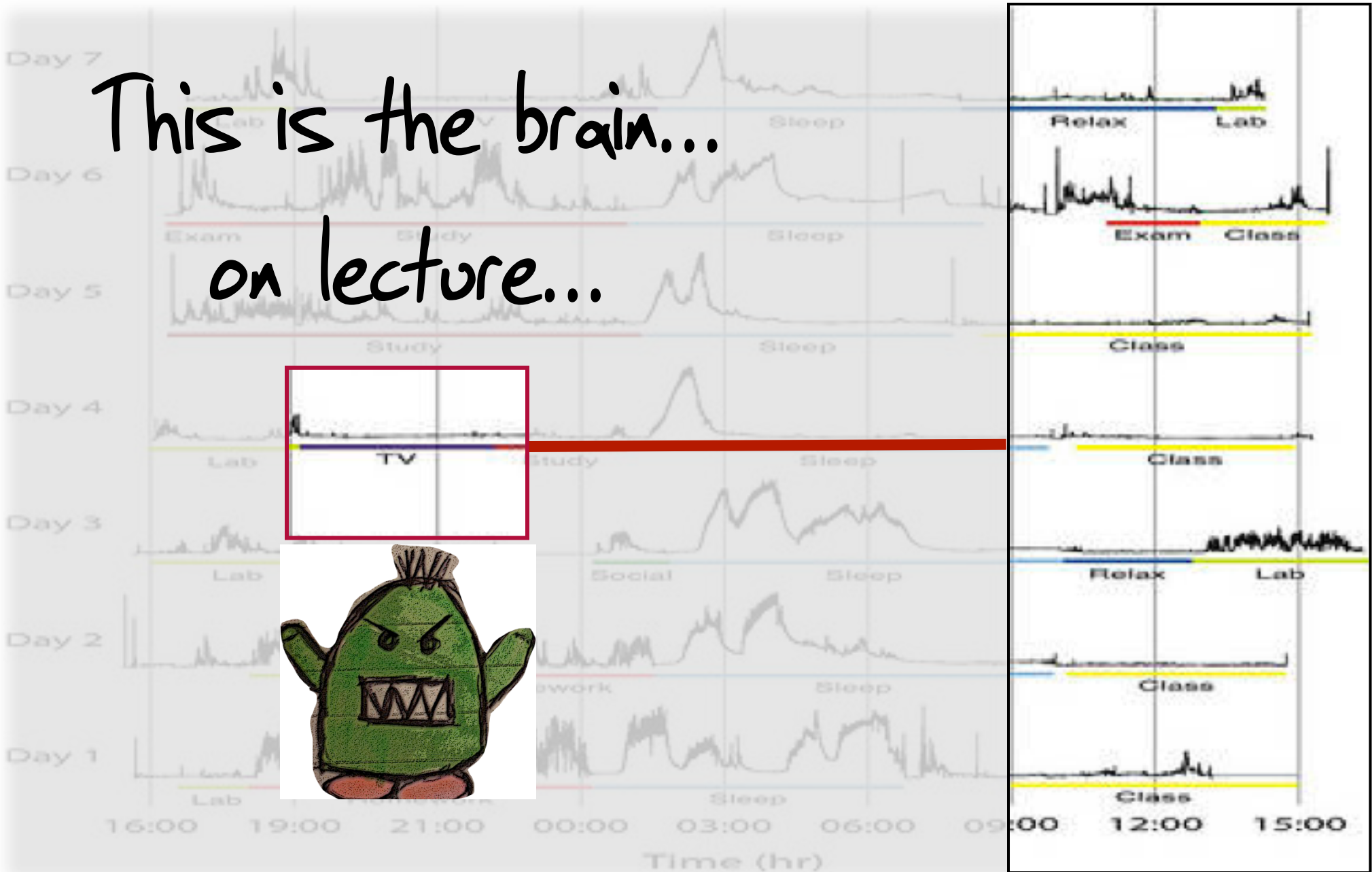


IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING, VOL. 57, NO. 5, MAY 2010



IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING, VOL. 57, NO. 5, MAY 2010

This is the brain...  
on lecture...





# Bloom's Taxonomy

Traditional Arrangement						
Instructional Design	In-class		Out-of-class			
Bloom's Taxonomy	Remember	Understand	Apply	Analyze	Evaluate	Create

created by Josh Walker

# Bloom's Taxonomy

Inverted "Flipped Classroom" Arrangement						
Instructional Design	Out-of-class		In-class			
Bloom's Taxonomy	Remember	Understand	Apply	Analyze	Evaluate	Create

created by Josh Walker

Q. What keeps you  
up at night?

A.

How to improve the quality of  
my lectures.

TU Darmstadt

# How to lecture on or off line: Chunk it

# lecture

0 min

40 mins

**lecture**

0 min

40 mins

**lecture**

**lecture**

**lecture**

**lecture**

0

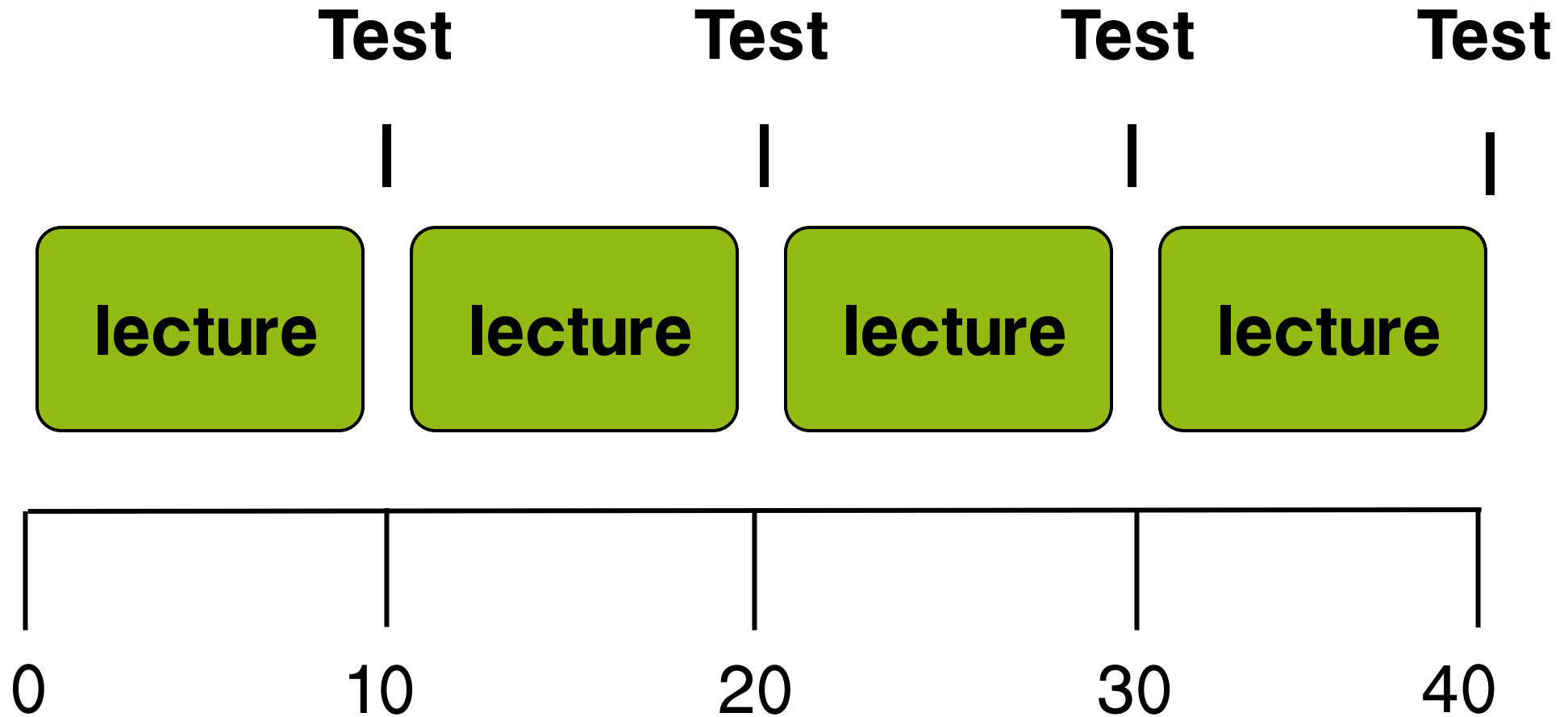
10

20

30

40

# Chunking with Retrieval Practice



# Myth 5: Flipped classrooms are fads not tied to how people actually learn.

► **Big idea: Flipped classrooms leverage how people learn best.**

- We learn best when we have some prior content knowledge
- We learn best when we apply our content knowledge
- Flipped classrooms help develop higher-order thinking skills in students by privileging application in class
- We learn best from direct instruction when content is chunked
- If you want students to remember, give them lots of practice with retrieving



# Myth 6: Flipped classrooms are a cure all.

►Big idea: Flipped classrooms take time, effort, and iteration - but doesn't all good teaching?

- Time investment is up front, saves time and is more efficient over time
- Takes a few iterations to implement effectively
- Some students will still fail to reach their highest potential
- Save time by using other people's videos / readings
- Find a co-flipper or a mentor at Flipped Learning Network

# Myth 7: Flipped classrooms aren't supported by research.

►Big idea: 20+ years of research

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

- New implementations have less research
- Case example: Just-in-Time Teaching & Peer Instruction
- Using JITT: First exposure to content happens before class through readings and questions
- Instructors analyze feedback on student understanding before class
- Peer Instruction in class-time spent eliciting confronting and resolving student misconceptions
- Peer Instruction - GOOD FOR BIG CLASSES!

*“What I can do to make students more active learners?”*

*“How can I present material in a way that it stays with the student?”*

*“How to get my students to dig deeper to obtain more than just a surface understanding of the material.”*

**Today'sMeet**

# Why should I flip if it is going to take time & energy I don't have?

*“Engaging students and making content relevant and interesting. Also, how not to be “talking at” students and just presenting content. I want to develop deeper thinking and learning skills for my students.”*

**bit.ly / flipit 101**

*“Wondering how to make the material more applicable, and present it in a more engaging way.”*

How do I flip my class



# **Myth 8: Students will love not having lecture in class.**

"Lecture is a comfort blanket  
for students."



# Myth 8: Students will love not having lecture in class.

► **Big idea: Lecture is a comfort blanket for students.**

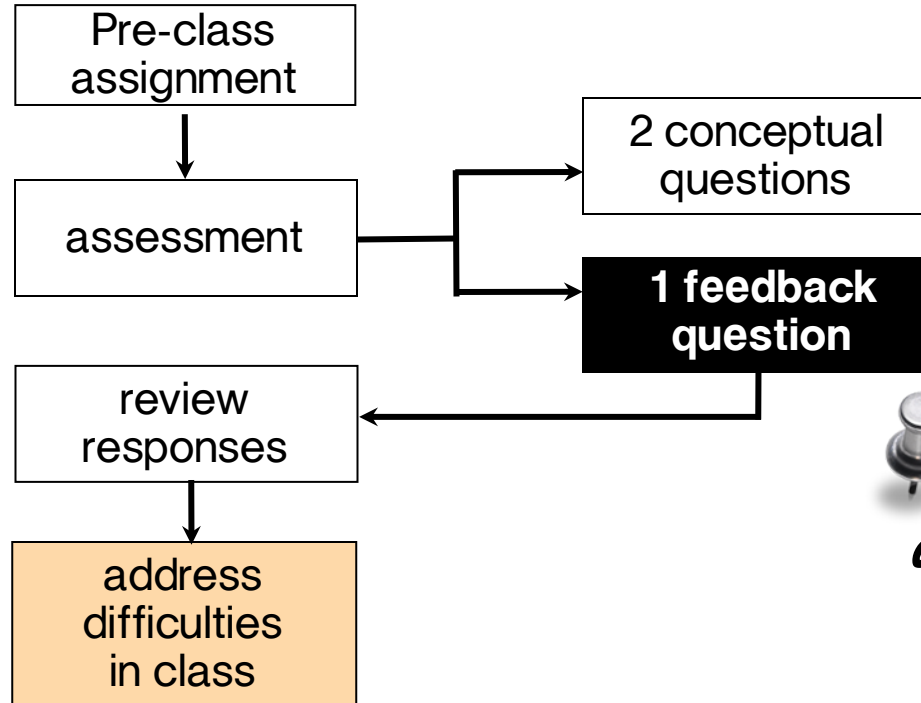
- Students may resist flipped learning
- Lecture a little every class period
- Don't call it a "flipped" classroom
- Don't call it an experiment
- Make sure frequent assessments cover what they do outside of class

# Myth 9: Students will not do pre-class work.

►Big idea: If you assess it, they will come.



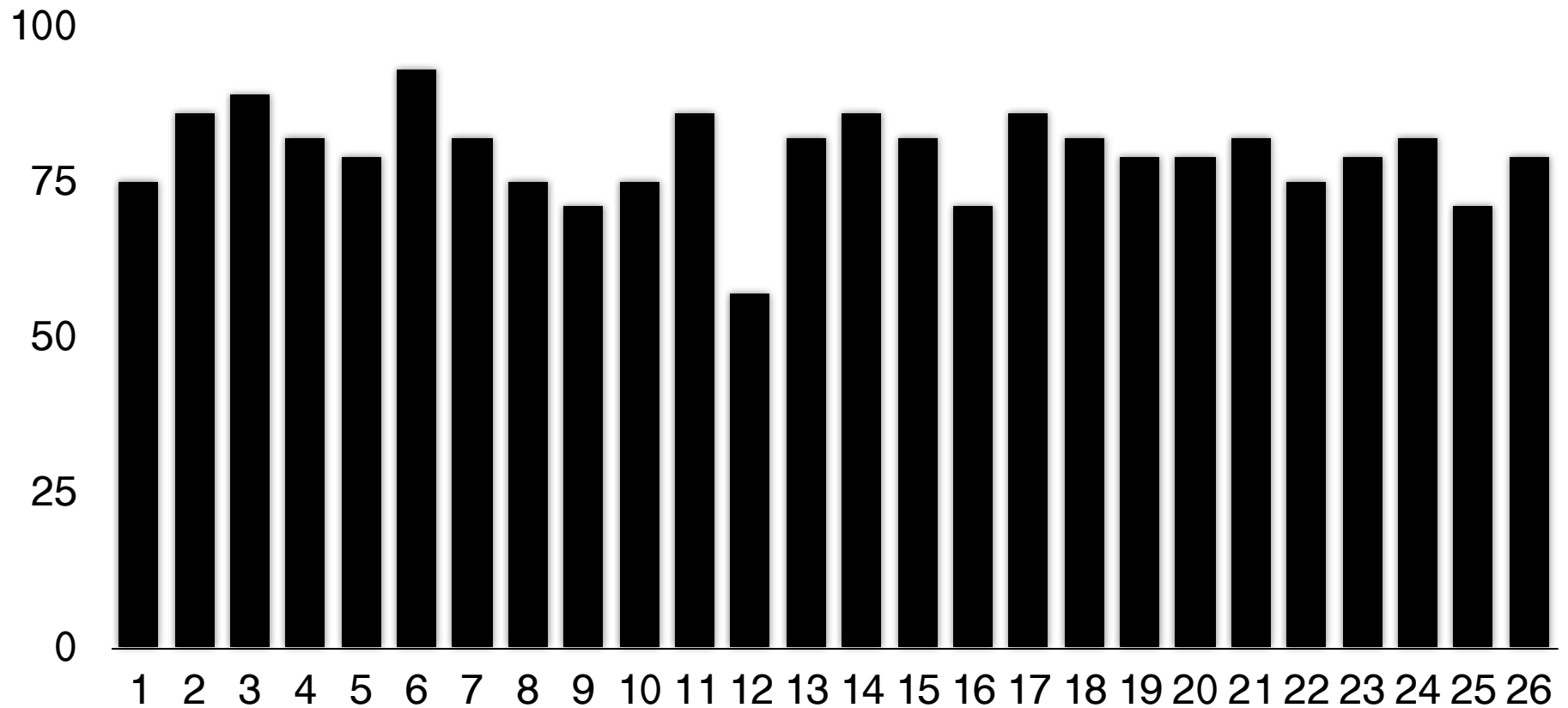
# Just-in-Time Teaching



*What do you find most difficult or confusing about this concept?*

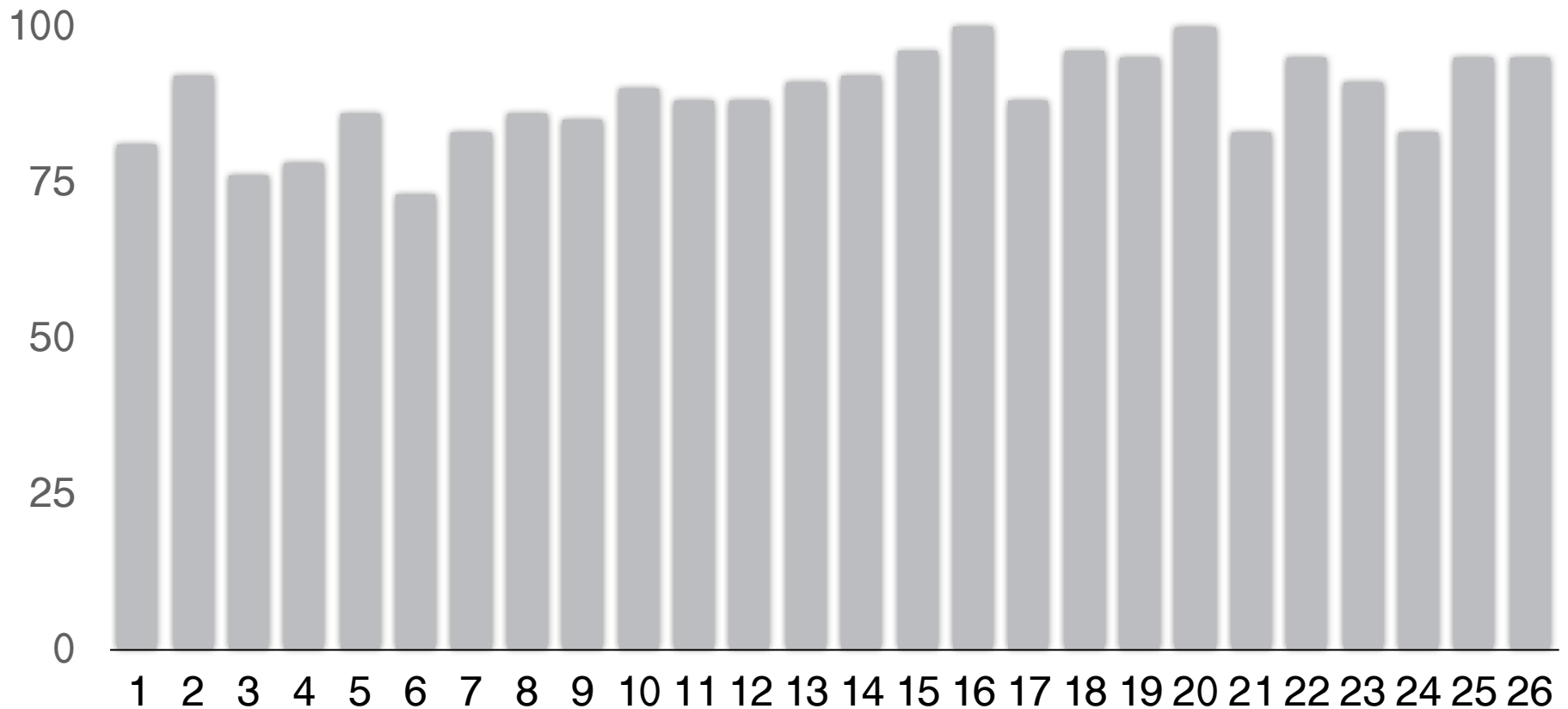
[blog.peerinstruction.net](http://blog.peerinstruction.net)

# Just-in-Time Teaching



% of students (n=28) completing reading assignment (n=26)

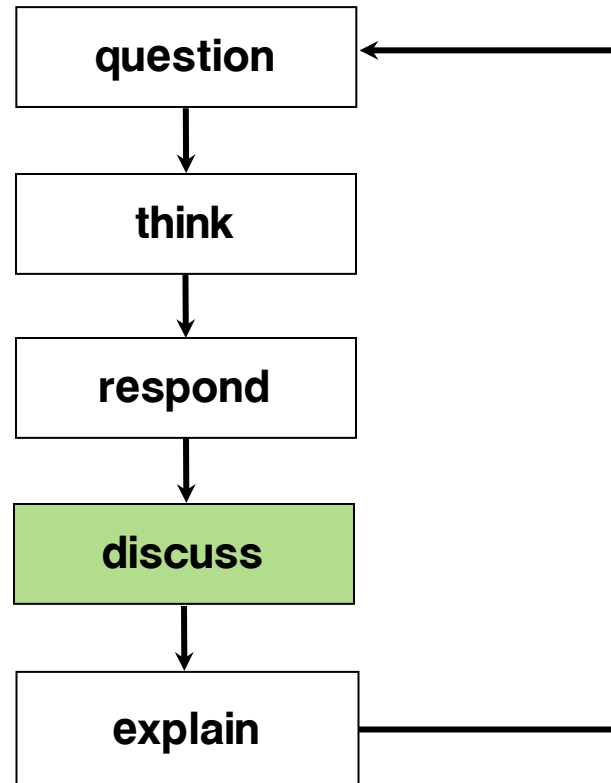
# Just-in-Time Teaching



% of students (n=28) reading assignment engagement (n=26)

# Peer Instruction

address  
difficulties  
in class



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

# Myth 9: Students will not do pre-class work.

► **Big idea: If you assess it, they will come.**

- Use JiTT with readings, observations, videos
- Give frequent quizzes in class
- Post students' questions in class
- Make sure formal assessments cover what they have learned out of class
- Don't forget to follow up with "after" activities

# Myth 10: There is one right way to flip a class.

► **Big idea: There are many ways to flip a class, and no one right way.**

- Bergmann and Sams, Flip 101 - Flip Mastery
- Eric Mazur, JiTT and Peer Instruction
- Case Study Method
- Project-based learning
- Classroom-response systems / clickers
- Inquiry Learning
- Discovery Learning
- Team-based learning

# FLIP in 4 easy steps

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

*Inspired by Josh Walker, Center for Teaching and Learning UT Austin*

*“Using case studies that students work thru prior to meeting for a case review / discussion.”*

*“They have reading materials before the lecture.”*

*“I’ve been requiring a lot more outside reading prior to coming into class and then having a pre-class quiz based on the reading.”*

*“Pre-recorded lectures for students to view online prior to live classroom where we discuss cases posed?”*

**bit.ly / flipit 101**

**Today'sMeet**

# How have you already flipped?

*“In some classes (for example labs) I have the students watch short "how to" videos prior to class so they have a better idea of what to expect when they get to class and we can spend more time on other aspects of the lab.”*

*“Asking student to read prepared documents at home and use class time for practice and solving problems.”*

*“I use an article about Katrina and the healthcare that followed for ethics class discussion.”*



# Big ideas about flipped classrooms

# 10

1

You can flip one concept or 10.

2

Flipped classrooms = new name, old concept.

3

Flipped classrooms are about pedagogy not technology.

4

Flipped classrooms are a mindset that puts attention on students.

5

Flipped classrooms align with how people learn best.

6

Flipping classrooms well takes time and effort.

7

20+ years of research supports flipped approaches to teaching.

8

Lecture is a comfort blanket for students, lecture a little.

9

If you assess pre-class work, most will do it.

10

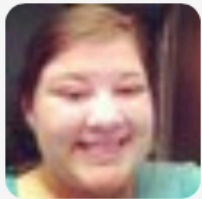
There are many ways to flip a class and no one right way.

*“I’d like to know tips for the first day of class so that I can set my students up for success.”*

*“What are some do and do nots for flipped classrooms?”*



- Do show them, live, how to read out of class work or how to watch a video, where you would pause, where you would take notes, where you would look something up.
- Don't call it a “flipped classroom”
- Don't call it an experiment
- Do plan on multiple iterations
- Don't forget the “After” part of a flipped class - exit tickets, one minute papers, mystery boxes!
- Do check out [blog.peerinstruction.net](http://blog.peerinstruction.net) for tons of additional tips



**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)

# Join the FLN's Ning!

flipped  
learning  
network

[FLIPPEDLEARNING.ORG](http://FLIPPEDLEARNING.ORG)



# For More Information

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**Bonnie.skloss@pearson.com**

**830-745-2400**

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## PEOPLE

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James Fraser

Ives Araújo

Cassandra Alvarado

Brian Lukoff

Jen Ebeler

Carol Dweck

Dan Meyer

Nancy Duarte

Chip and Dan Heath

# Acknowledgements



## BOOKS

Flip Your Classroom

Slide!Dlogy

Made to Stick

Why Students Don't Like School



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

@julieschell

