How to flip your class online, when the world is flipping out

A hands/brains-on demo

21 April 2020
75-student team & project based class!
information transfer

sense-making
Information transfer and sense-making are important aspects of learning. Campus learning is typically instructor-paced and synchronous, involving lectures, while home learning is self-paced and asynchronous, allowing for homework and study at home.
Information transfer: instructor-paced synchronous lecture

Sense-making: self-paced asynchronous home work/study
- Campus: Instructor-paced synchronous lecture
- Home: Instructor-paced synchronous online lecture
- Home: Self-paced asynchronous home work/study
- Home: Information transfer
- Home: Sense-making
instructor-paced synchronous lecture

instructor-paced asynchronous 
recorded lecture

self-paced asynchronous home work/study

sense-making
online

information transfer

self-paced asynchronous

instructor-led synchronous

sense-making
self-paced asynchronous

online

interactive

information transfer

instructor-led synchronous

online

sense-making
interactive

two evidence-based approaches
let’s explore these two steps

online

information transfer

self-paced asynchronous

online

sense-making

instructor-led synchronous
let’s explore these two steps

(using two free tools)
asynchronous information transfer
asynchronous information transfer

Perusall...

• is a text-based social learning platform
• takes information transfer out of classroom
You will…

1. create a (dummy) course (while I create mine)
2. join my course to get the student experience
asynchronous information transfer

1. in your browser go to: app.perusall.com
2. if you have an account, log in, then wait
asynchronous information transfer

1. in your browser go to: app.perusall.com
2. if you have an account, log in, then wait
3. if you don’t have an account, follow along
1. app.perusall.com

2a. sign in here, or...

2b. click register
create a course...

(if you logged in with existing account, click “Create course” at top left of page)
...select “instructor” and...
for students to access directly at perusall.com
can’t find your institution?
enter “Example Institution”
Why Perusall works

• social connection/interaction *in context*
• incentivizes/motivates participation
• machine learning analysis of engagement
• provides “Confusion Report” to instructor
A few notes

• Perusall is free
• Many textbooks free until summer
• Nearly 100% reading-assignment completion
• Students using Perusall perform better
instructor-led interactive sense-making
instructor-led interactive sense-making
instructor-led interactive sense-making

Peer Instruction...

- interactive teaching method
- promotes meaningful thinking
You will experience Peer Instruction by…

1. answering question individually
2. discussing question in breakout rooms
3. reanswering question
instructor-led interactive sense-making

Go to: PollEv.com/ericmazur615
question
think
poll
discuss
repoll
explain

online
instructor-led
synchronous

sense-making
Why Peer Instruction works

• engages students to think
• individualizes learning
• students use similar discourse
• helps avoid the “expert blind spot”
A few notes

Peer Instruction…

• greatly improves learning outcomes
• actively engages students online
• integrates with Perusall
online

information transfer

good for self-paced asynchronous learners

sense-making

well suited for instructor-led synchronous learning
self-paced asynchronous

information transfer

instructor-led synchronous

sense-making
In the image, there are two main columns labeled 'campus' and 'home'.

In the 'campus' column, the terms 'sense-making' and 'instructor-led synchronous peer instruction' are highlighted.

In the 'home' column, the terms 'information transfer' and 'self-paced asynchronous pre-class reading' are highlighted.
Compare with the “old” approach

**Campus**
- **sense-making**
- instructor-led
- synchronous
- peer instruction

**Home**
- **information transfer**
- self-paced
- asynchronous
- pre-class reading
Compare with the “old” approach

**Campus**
- Information transfer
  - Instructor-paced
  - Synchronous
  - Lecture

**Home**
- Sense-making
  - Self-paced
  - Asynchronous
  - Home work/study
self-paced
asynchronous
pre-class reading

instructor-led
synchronous
peer instruction

preparation

sense-making

experimental activities

instructor-led
synchronous
peer instruction

assistance
information
transfer

projects
tutorials

problem sets
assessment

home

campus
Improving education

synchronous ↔ asynchronous
Improving education

synchronous → asynchronous

everybody together at the same *time*
Improving education

synchronous ↔ asynchronous

instructor-paced ↔ self-paced
Improving education

synchronous ↔ asynchronous

instructor-paced ↔ self-paced

everybody together at the same pace
Improving education

lecture

synchronous ↔ asynchronous

instructor-paced ↔ self-paced
Improving education

recorded lecture

synchronous <-> asynchronous

instructor-paced <-> self-paced
Improving education

lab

synchronous ⇄ asynchronous

instructor-paced ⇄ self-paced
Improving education

- homework/study
  - synchronous
  - instructor-paced
  - asynchronous
  - self-paced
Improving education

synchronous → asynchronous

instructor-paced ↔ self-paced
Improving education

synchronous → asynchronous

instructor-paced → self-paced
Improving education

synchronous → asynchronous

instructor-paced → self-paced

more time to help students where it really matters!
Publishers offering textbooks free until May 25

- Broadview Press
- Cambridge University Press
- CRC Press
- Hackett Publishing
- McFarland
- McGraw-Hill Education
- Oxford University Press
- Princeton University Press
- Routledge
- SAGE
- Springer
- Taylor & Francis
- Wiley
- W.W. Norton & Company
Please help spread the word!

calendly.com/ericmazur/fliponline

(tell your colleagues and tweet)

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