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

A hands/brains-on demo

24 April 2020
75-student team & project based class!
Learning environments and methods:

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

**Home**
- Sense-making
- Self-paced
- Asynchronous
- Home work/study
campus
information transfer
instructor-paced
synchronous
lecture

home
sense-making
self-paced
asynchronous
home work/study
instructor-paced synchronous online lecture

instructor-paced synchronous 

online lecture

self-paced asynchronous home work/study
Campus
- Information transfer
  - Instructor-paced synchronous lecture

Home
- Information transfer
  - Instructor-paced asynchronous recorded lecture
- Sense-making
  - Self-paced asynchronous home work/study
instructor-paced
synchronous
lecture

instructor-paced
asynchronous
recorded lecture

self-paced
asynchronous
home work/study

ALONE!
online
information transfer
self-paced asynchronous

online
sense-making
instructor-led synchronous
interactive

online

information transfer

self-paced asynchronous

instructor-led synchronous

online

sense-making
interactive

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

- **online**
  - information transfer
    - self-paced
    - asynchronous
  - sense-making
    - instructor-led
    - synchronous
let’s explore these two steps

(Using two free tools)

- **Information Transfer**
  - Self-paced
  - Asynchronous

- **Sense-Making**
  - Instructor-led
  - Synchronous
asynchronous information transfer

Perusall
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
Documents you can use with Perusall

- PDF, Word, html, or ePub files (free)
- open access material (free)
- source code with syntax highlighting (free)
- books (purchased by students* or institution)

*via Perusall or through university bookstore (support@perusall.com)
Publishers offering free textbooks until summer

- Broadview Press
- Cambridge University Press
- CRC Press
- McFarland
- McGraw-Hill Education
- Oxford University Press
- Princeton University Press
- Routledge
- SAGE
- Springer
- Taylor & Francis
- University Science Books
- Wiley
- W.W. Norton & Company
instructor-led interactive sense-making

online informational transfer

self-paced asynchronous

online sense-making

instructor-led synchronous
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

synchronous

instructor-led

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

self-paced asynchronous

online

sense-making

instructor-led synchronous
campus

- online
  - information transfer
    - self-paced
    - asynchronous
  - sense-making
    - instructor-led
    - synchronous

- online
campus

online

information transfer

online

sense-making

self-paced asynchronous

instructor-led synchronous
Self-paced asynchronous pre-class reading

Instructor-led synchronous peer instruction

Sense-making

Information transfer
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
Improving education

synchronous ↔ asynchronous
Improving education

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 \leftrightarrow asynchronous

instructor-paced \leftrightarrow self-paced
Improving education

lab

synchronous ↔ asynchronous
instructor-paced ↔ self-paced
Improving education

Homework/study

Synchronous ↔ Asynchronous

Instructor-paced ↔ 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!
Please help spread the word!

calendly.com/ericmazur/fliponline

(tell your colleagues and tweet)

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