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

A hands/brains-on demo

May 5, 2020
75-student team & project based class!
information transfer

sense-making
information transfer

instructor-paced synchronous lecture

campus

sense-making

self-paced asynchronous home work/study

home
information transfer
instructor-paced synchronous lecture
campus

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

information transfer

campus

instructor-paced synchronous online lecture

information transfer

home

sense-making

home

self-paced asynchronous home work/study
instructor-paced synchronous lecture

instructor-paced asynchronous recorded lecture

self-paced asynchronous home work/study

campus

home

home

information transfer

information transfer

sense-making
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

online sense-making
instructor-led synchronous
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

(online) information transfer
(self-paced asynchronous)

(online) sense-making
(instructor-led synchronous)

(using two free tools)
asynchronous information transfer

Perusall
asynchronous information transfer

Perusall...

• is a text-based social learning platform
• takes information transfer out of classroom
asynchronous information transfer

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

<table>
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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
self-paced asynchronous online information transfer sense-making

question

think

poll

discuss

repoll

explain

online

instructor-led synchronous
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

sense-making

instructor-led synchronous
self-paced asynchronous
information transfer

instructor-led synchronous
sense-making

campus
Campus

Self-paced
Asynchronous

Information transfer

Online

Sense-making

Instructor-led
Synchronous
sense-making

instructor-led synchronous peer instruction

information transfer

self-paced asynchronous pre-class reading
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

- home
self-paced
asynchronous
pre-class reading

home

information
transfer

instructor-led
synchronous
peer instruction

students

problem sets

evaluation

experimental activities

tutorials

sense-making

projects
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 ↔ asynchronous

instructor-paced ↔ self-paced
Improving education

synchronous -> asynchronous

instructor-paced <-> self-paced
Improving education

synchronous \rightarrow \text{asynchronous}

instructor-paced \rightarrow \text{self-paced}
Improving education

synchronous \rightarrow \textcolor{blue}{\text{asynchronous}}

instructor-paced \rightarrow \textcolor{red}{\text{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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mazur.harvard.edu

resource sheet:  bit.ly/fliponline

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