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

A hands/brains-on demo

May 4, 2020
75-student team & project based class!
information transfer

sense-making
information transfer
instructor-paced
synchronous
lecture

sense-making
self-paced
asynchronous
home work/study
Information transfer

instructor-paced
synchronous
lecture

sense-making

self-paced
asynchronous
home work/study
Instructor-paced synchronous online lecture

Information transfer

Instructor-paced synchronous online lecture

Information transfer

Self-paced asynchronous home work/study

Sense-making
instructor-paced synchronous lecture
campus

instructor-paced recorded lecture
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

ALONE!
self-paced asynchronous
information transfer
instructor-led synchronous
sense-making
interactive

- self-paced
- asynchronous

- instructor-led
- synchronous

- online
- information transfer

- online
- sense-making
interactive

online

information transfer

self-paced asynchronous

online

sense-making

instructor-led synchronous

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...

I want to create a course...

- I am a student
- I am an instructor

Course name
Your unique course URL is based on this name. If you change the name, the URL will change.

Institution
Example Institution (Use for testing only, US)
Type to search for your institution, and contact Perusall support if your institution is not listed.

Course start date

Course end date

Enrollment estimate
The approximate number of students you expect to join the course. Perusall will use this value and the Target Group Size to create discussion groups for students.

Target group size
Students will be placed into groups of approximately this size and will only be able to see comments and questions within their group. Changing this setting will not retroactively apply to groups that have already been formed, to provide consistency for students.

Select materials
Browse our catalog of available titles

Learn more about discussion groups
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**
  - Information transfer (self-paced, asynchronous)
  - Sense-making (instructor-led, synchronous)
instructor-led interactive sense-making

self-paced asynchronous online information transfer

instructor-led synchronous

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 online
information
transfer
sense-making
instructor-led
synchronous
question
think
poll
discuss
repoll
explain

online

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

sense-making

instructor-led synchronous
campus

online

information transfer

self-paced asynchronous

online

sense-making

instructor-led synchronous
campus

sense-making

instructor-led
synchronous
peer instruction

home

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
self-paced
asynchronous
peer instruction
pre-class reading
problem sets
assessment
instructor-led
synchronous
tutorials
information transfer
experimental activities
sense-making
campus
home
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 \hspace{5em} 
\hspace{5em} \text{asynchronous}

instructor-paced \hspace{5em} 
\hspace{5em} \text{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](calendly.com/ericmazur/fliponline)

(tell your colleagues and tweet)

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