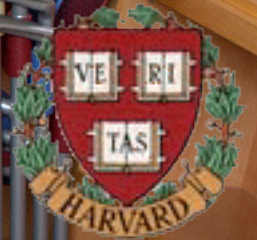


How to flip your class online, when the world is flipping out



A hands/brains-on demo
27 April 2020



A photograph of a modern classroom or office environment where students are working in groups. In the foreground, a woman with blonde hair is speaking to a group. To her right, a woman with dark hair is looking at a laptop. In the background, other students are working at desks with laptops. The room has large windows and a bright, open atmosphere.

75-student team & project based class!



**information
transfer**

sense-making



campus

**information
transfer**

instructor-paced
synchronous
lecture

home

sense-making

self-paced
asynchronous
home work/study

campus

**information
transfer**



home

sense-making

instructor-paced
synchronous
lecture

self-paced
asynchronous
home work/study

campus

information
transfer

instructor-paced
synchronous
lecture

home

information
transfer

instructor-paced
synchronous
online lecture

home

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asynchronous
home work/study

ALONE!

online

**information
transfer**

self-paced
asynchronous

online

sense-making

instructor-led
synchronous



interactive

online	online
information transfer	sense-making
self-paced asynchronous	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

online
information transfer
sense-making
asynchronous
synchronous

Perusall

asynchronous information transfer

online

online

Perusall...

information
transfer

sense-making

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

self-paced
asynchronous

instructor-led
synchronous

asynchronous information transfer

online

online

You will...

information
transfer

sense-making

1. create a (dummy) course (while I create mine)

2. join my course to get the student experience

self-paced
asynchronous

instructor-led
synchronous

asynchronous information transfer

online

online

1. in your browser go to: app.perusall.com

information
transfer

sense-making

2. if you have an account, log in, then wait

self-paced
asynchronous

instructor-led
synchronous

asynchronous information transfer

online

online

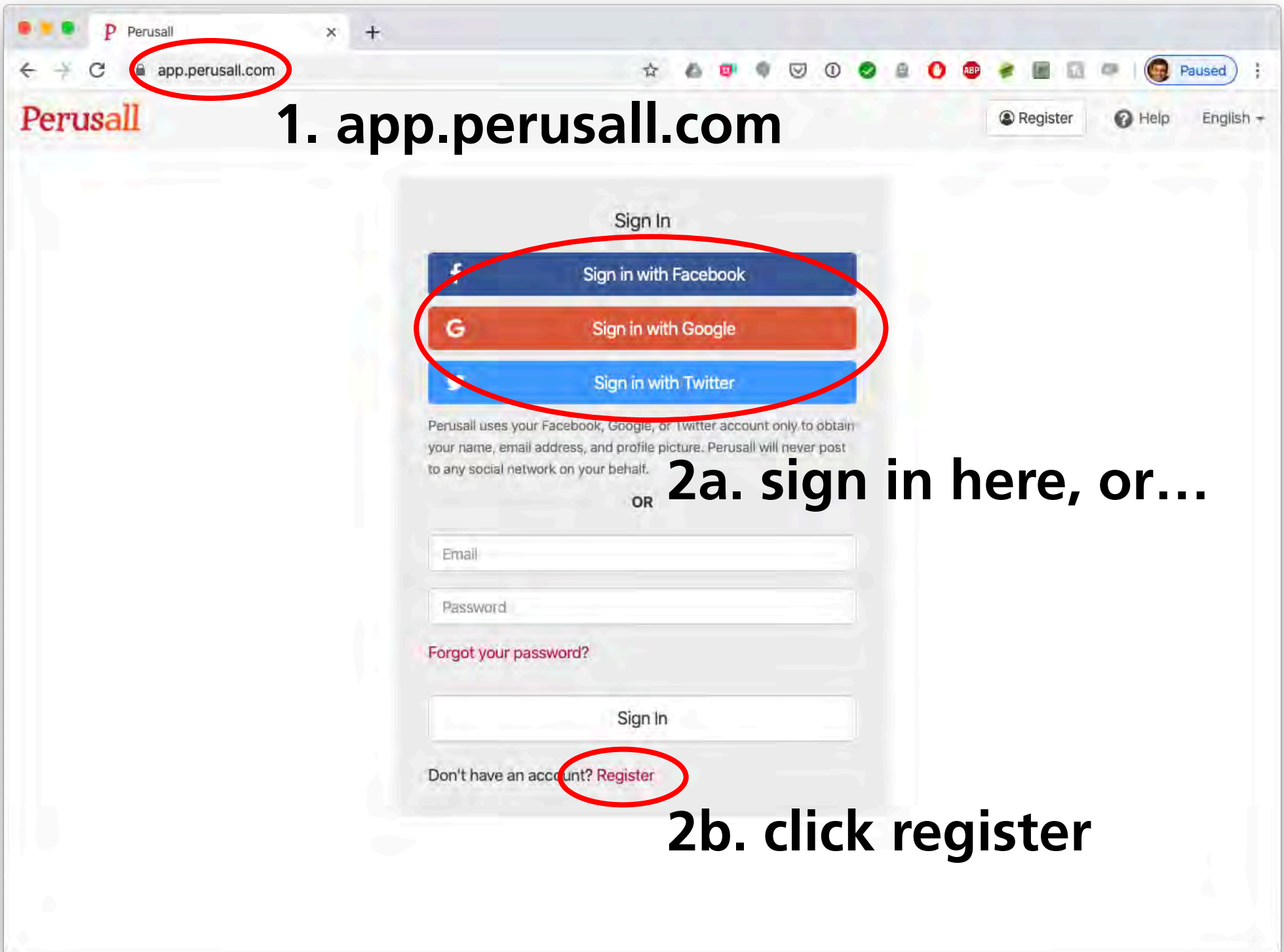
1. in your browser go to: app.perusall.com
2. if you have an account, log in, then wait
3. if you don't have an account, follow along

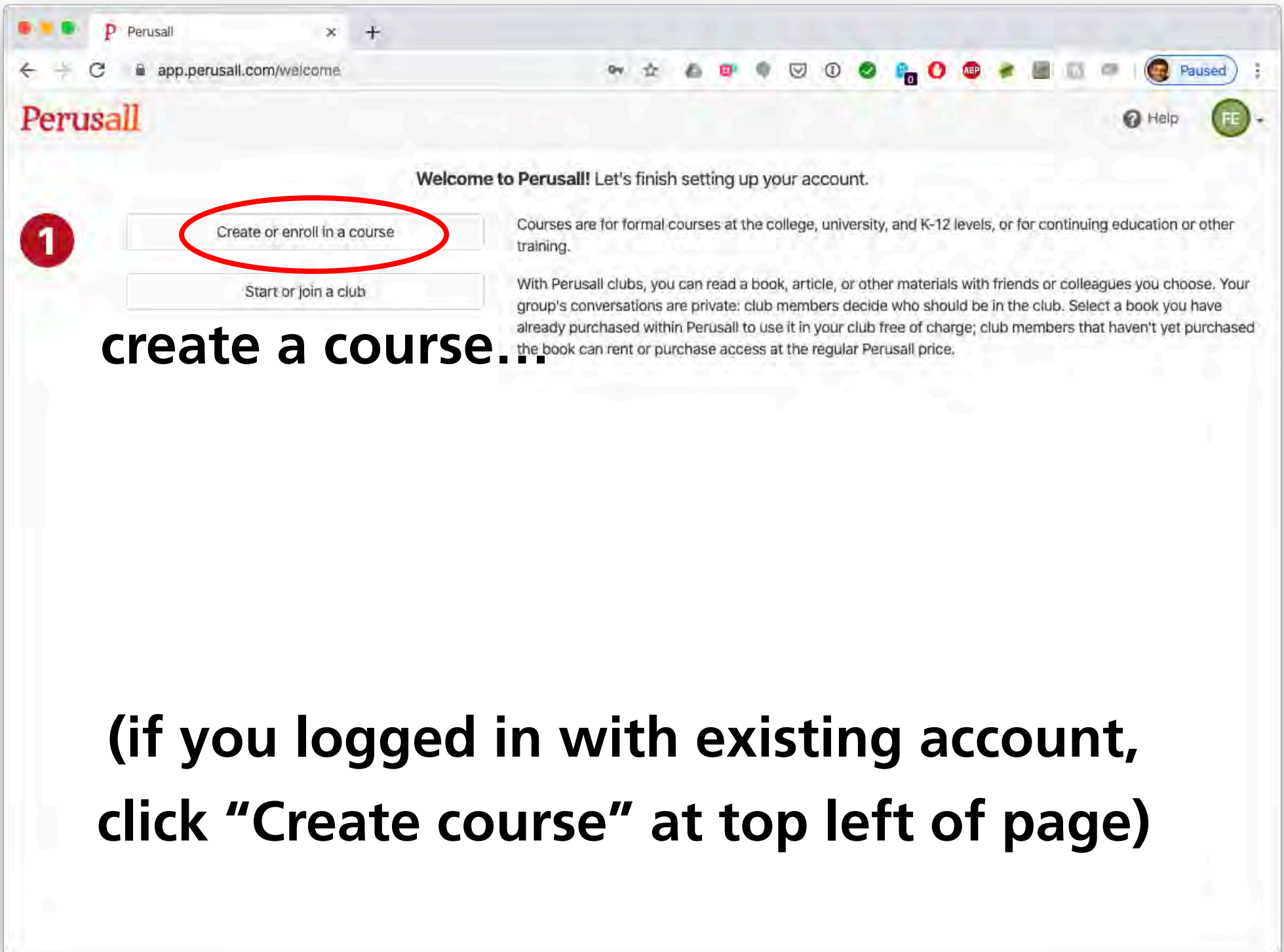
information
transfer

sense-making

self-paced
asynchronous

instructor-led
synchronous





The image is a screenshot of a web browser displaying the Perusall welcome page. The browser's address bar shows 'app.perusall.com/welcome'. The page features the Perusall logo in the top left and a 'Paused' status indicator in the top right. A large heading reads 'Welcome to Perusall! Let's finish setting up your account.' Below this, there are two main buttons: 'Create or enroll in a course' and 'Start or join a club'. The first button is circled in red and is preceded by a large red circle containing the number '1'. To the right of these buttons, there is explanatory text about courses and clubs. The text for courses states they are for formal education or training. The text for clubs explains that they are for reading materials with friends, with private conversations and options to rent or purchase books.

1 Create or enroll in a course

Start or join a club

create a course...

**(if you logged in with existing account,
click "Create course" at top left of page)**

Perusall

Welcome to Perusall! Let's finish setting up your account.

Courses are for formal courses at the college, university, and K-12 levels, or for continuing education or other training.

With Perusall clubs, you can read a book, article, or other materials with friends or colleagues you choose. Your group's conversations are private: club members decide who should be in the club. Select a book you have already purchased within Perusall to use it in your club free of charge; club members that haven't yet purchased the book can rent or purchase access at the regular Perusall price.

Perusall

app.perusall.com/welcome

Help FE

2 I am a student I am an instructor

3 I want to create a course...

☒ for students to access directly at perusall.com.

☐ integrated with my institution's Learning Management System.

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

20

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

20

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.

Based on these settings, Perusall will place students into 1 discussion group(s) for each document. Discussion groups are fixed for a particular document once it is added to the course. [Learn more about discussion groups](#)

Select materials

[Browse our catalog of available titles](#)

Perusall

app.perusall.com/welcome

Help FE

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Course end date

Enrollment estimate

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Select materials

...for students to access
directly at perusall.com

Perusall

app.perusall.com/welcome

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Select materials

[Browse our catalog of available titles](#)

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

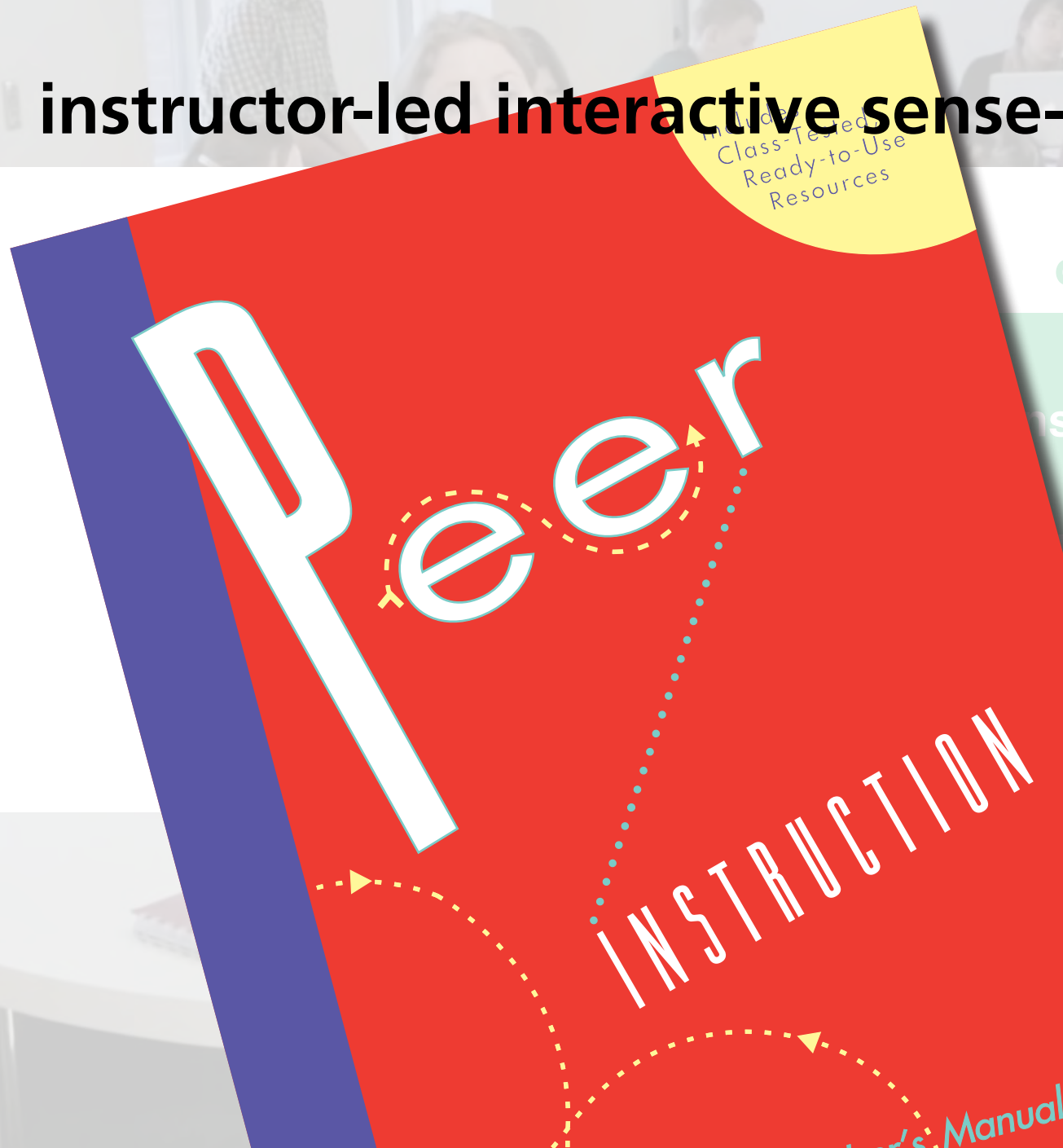
self-paced
asynchronous

online

sense-making

instructor-led
synchronous

instructor-led interactive sense-making



online

sense-making

instructor-led
asynchronous

instructor-led interactive sense-making

Peer Instruction...

- interactive teaching method
- promotes meaningful thinking

online

information
transfer

online

sense-making

self-paced
asynchronous

instructor-led
synchronous

instructor-led interactive sense-making

You will experience Peer Instruction by...

- 1. answering question individually**
- 2. discussing question in breakout rooms**
- 3. reanswering question**

instructor-led interactive sense-making

online

information
transfer

online

sense-making

Go to: Pollev.com/ericmazur615

self-paced
asynchronous

instructor-led
synchronous

question

think

poll

discuss

repoll

explain

online

ense-making

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

online

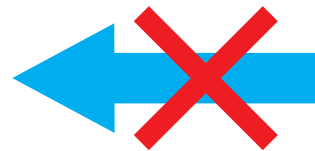
sense-making

instructor-led
synchronous

campus

online

online



**information
transfer**

sense-making

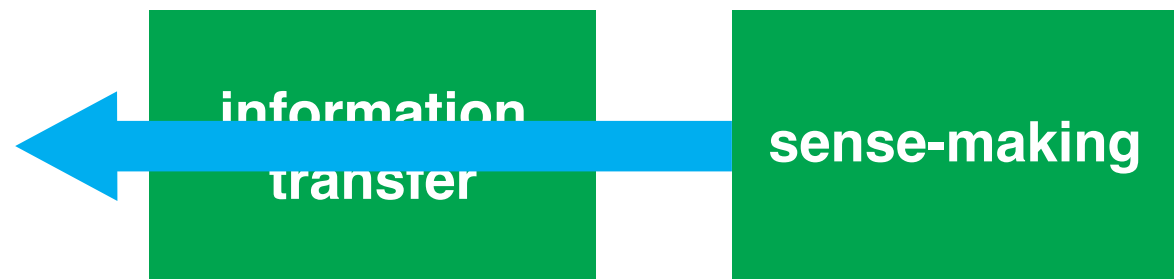
self-paced
asynchronous

instructor-led
synchronous

campus

online

online



self-paced
asynchronous

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

campus

sense-making

projects

home

tutorials

information

transfer

experimental activities

instructor-led
synchronous
peer instruction

self-paced
asynchronous
problem sets

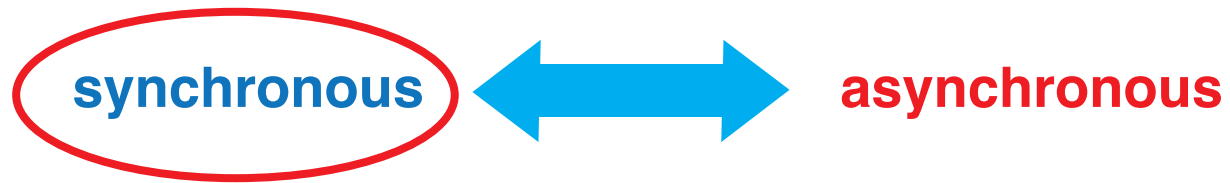
pre-class reading

assessment

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



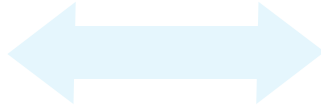
self-paced

everybody together
at the same *pace*

Improving education

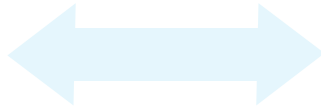
lecture

synchronous



asynchronous

instructor-paced

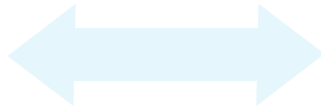


self-paced

Improving education

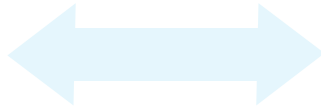
recorded lecture

synchronous



asynchronous

instructor-paced

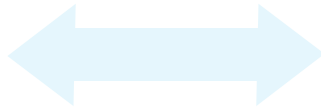


self-paced

Improving education

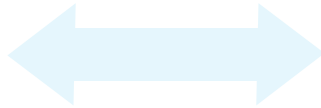
lab

synchronous



asynchronous

instructor-paced

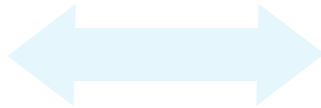


self-paced

Improving education

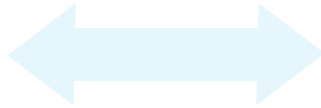
homework/study

synchronous



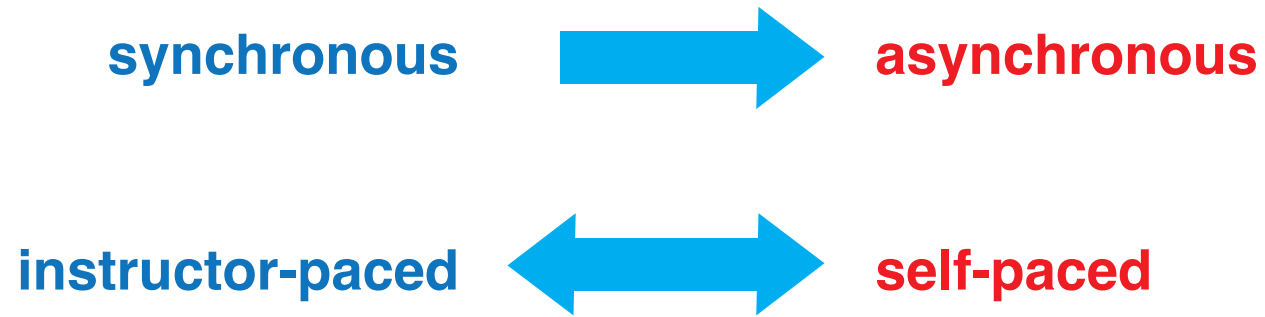
asynchronous

instructor-paced



self-paced

Improving education



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)

Follow me!



@eric_mazur

for a copy of this presentation:

mazur.harvard.edu

resource sheet: bit.ly/fliponline

Follow me!



@eric_mazur