Interactive Learning, online and in-person





Interactive Learning, online and in-person











how did you become good at that?





Goal of this session

demonstrate how to integrate Perusall in your teaching approach

learningcatalytics.com/demo

Join live session

Partipate in a poll that is taking place in your class now.

58637213

Join

Session ID

each table: agree on a team name

Enter the name of your team. Make sure that everyone

Team name: 23

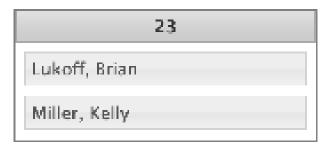
✓ OK

name of your team goes here!

Session 58637213

Warning: Grades will not be recorded when you log in with this demo account. Please log out and log in again Learning Catalytics account username and password.

You have joined the session; your team currently consists of:



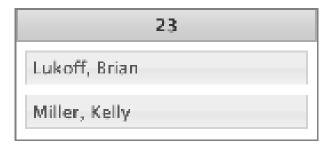
Please wait for your instructor to start the individual round.

Current team: 23 🛣 Change team 🗀 Send a message to the instructor 📉 🕻 Join another session

Session: 58637213

Warning: Grades will not be recorded when you log in with this demo account. Please log out and log in again Learning Catalytics account username and password.

You have Joined the session; your team currently consists of:



Please wait for your instructor to start the individual round.

Current team: 2



M Send a message to the instructor

Join another session

Warning: Grades will not be recorded when you log in with this demo account. Please log out and log in again using your valid Learning Catalytics account username and password.

This is the individual round; work on these questions on your own.

Jump to ▼ 1 2 3 4 5

many choice question

Teaching by questioning, as described in the Science article you read has the following advantage(s) over the traditional lecture method (check all that apply)

A.
Students engage in meaningful thinking during class time

Students become emotionally invested in the learning process

It provides an opportunity for the instructor to integrate technology (such as clickers) into the classroom

Students help each other resolve misunderstandings more effectively

Promotes memorization of factual questions

You may select zero, one, or many answers.

Submit response

B.

C.

D.

E.

Current team: 23
Change team Send a message to the instructor

Join another session

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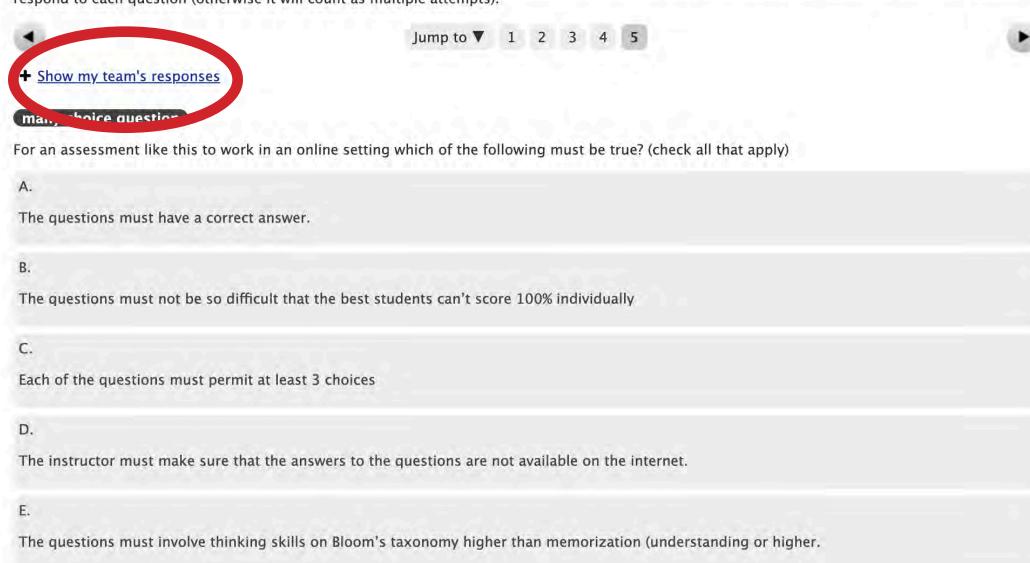
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Current team: 23
Change team Send a message to the instructor

Join another session

Warning: Grades will not be recorded when you log in with this demo account. Please log out and log in again using your valid Learning Catalytics account username and password.

This is the team round. If you respond to a question, it will count for your entire team (you and Kelly Miller). Only one member of your team should respond to each question (otherwise it will count as multiple attempts).



The assessment must be low-stakes and frequent

F.

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Jump to ▼ 1

2 3 4



+ Show my team's responses

C, D, E, and F Brian Lukoff A, C, D, E, and F Kelly Miller

many choice question

For an assessment like this to work in an online setting which of the following must be true? (check all that apply)

A.

The questions must have a correct answer.

B.

The questions must not be so difficult that the best students can't score 100% individually

C.

Each of the questions must permit at least 3 choices

D.

The instructor must make sure that the answers to the questions are not available on the internet.

E.

The questions must involve thinking skills on Bloom's taxonomy higher than memorization (understanding or higher.

F.

Warning: Grades will not be recorded when you log in with this demo account. Please log out and log in again using your valid

Readiness Assurance This is the team round. If you respond to a q



Jump to ▼ 1 2 3 4 5



+ Show my team's responses

C, D, E, and F

A, C, D, E, and F Kelly Miller

1st attempt: 4 pts

For an assessment like this to work in an online setting which of the following must be true? (check all that apply)

2nd attempt:

2 pts

The questions must have a correct answer.

3rd attempt:

1 pt

4th attempt: solution revealed

Readiness Assurance

You have completed all of the questions.

5/5 questions attempted, 13.0/20 possible points in team round Q Score details

Question	Individual Result	Points	Team Result	Points	Total Points
1	Correct	4.0	Correct (on attempt 1)	4.0	4.0
2	Correct	4.0	Correct (on attempt 2)	2.0	3.0
3	Incorrect	0.0	Correct (on attempt 1)	4.0	2.0
4	Correct	4.0	Correct (on attempt 2)	2.0	3.0
5	Incorrect	0.0	Correct (on attempt 3)	1.0	0.5
Total		12.0		13.0	12.5

http://bit.ly/remoteRAA

Readiness Assurance

- teambasedlearning.org
- need to make questions difficult
- need to "de-Google" questions

information sense-making transfer

Perusall Feedback — Pedagogy

- motivating students
- instructor involvement

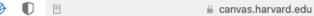
Rodrigo Fernández Donoso: "Ufff. The [..] challenge is to motivate students to read before class; if not, then the fliped class will not function."

Natalia Salas: "[The flippled classroom] seems to me a very useful strategy but I wonder about the ways in which the student can be motivated to start with it."

Marilú Matte: "Motivation is, at least in my experience, even a bigger problem now that they are "back" to presential classes after the pandemic that kept them away from learning environments. There is a sort of epidemic of lack of motivation, mental health problems, and extreme fatigue. If we had been teaching with this method, things might be very different today."

Leire Nuere Salgado: "Students usually complain about the workload in case many teachers use this system. For one teacher they love the methodology, but with many, they say is too much. How can be measured the adequate workload considering all the faculty activities?"

Isabel Coca: "If 70% of the students don't do an assigned reading, my question is how much the teacher is going to give the session for the 30% who have read it?"



















Syllabus

Modules

Assignments

Slack

Grades

People

Perusall

Manage Course Ø

Library Reserves

Academic Integrity Policy

Support Resources

Panopto

Collaborations

Outcomes

Ø

Rubrics Ø

Files

Pages Ø

Discussions

Quizzes Ø

Settings

Reading Assignment Overview

Because there are no lectures in AP50, you will be using *Perusall* to familiarize yourself interactively with the basic content of the course. You will do so by reading one chapter per week from a textbook that evolved from a set of lecture notes for an introductory physics course. The textbook, *Principles and Practice of Physics* (Eric Mazur, Pearson 2015) is available at no cost in Perusall. If you want a printed copy, you can purchase the book via one of the many online textbook vendors, but this is neither required nor necessary.

The *Perusall* platform permits you to interact asynchronously with other students in the class and help each other build a deeper understanding by annotating and discussing the material within the context of the text you are reading.

If you haven't yet done so, watch this short introductory video about Perusall before proceeding.

🚺 Reading Assignment Overview: APPHY 50B: Physics as a Foundation for Science and Engineering, Part II

Purpose of the reading assignments

The goal of the reading is to gain sufficient knowledge to be able to participate in subsequent activities in a meaningful way — just as a lecture would (but now you can do it at your own convenience and pace, and you can interact with others). The goal is not to master every little detail — the other activities are designed to reinforce your understanding of the important principles before you begin to apply them in the projects. There is no need to memorize any of the information in the text, as you will always have access to it. Therefore you can focus on understanding, rather than memorizing.

Fostering a community of learners in Perusall

Perusall is **your space** and provides a good opportunity to create happenstance encounters and build an online community of learners. The teaching team will **not** participate in the discussions in Perusall, although to help facilitate and bootstrap both the conversation and your critical thinking about the material, we will pre-annotate the chapters in Perusall with a number of questions that students in previous years have asked. The <u>Perusall Curators Program</u>, however, permits some of the most burning lingering questions or points of confusion to be transferred to the #persuall-loose-ends channel on Slack, where everyone, including members of the teaching team, can join in on a conversation.

With this space on Perusall for interacting with others also comes the responsibility of maintaining <u>professionalism</u>. It is important to always behave respectfully, even with conflicting view points. While there is no moderation of the annotations on Perusall, **you can anonymously report an annotation** if you deem it to be inappropriate or plagiarized. Click the small 'hazard' triangle underneath the annotation and the annotation will be removed until it is reviewed by the teaching team.































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http://bit.ly/perusall_instructions

Collaborations	90
Outcomes	Ø
	-/

Pages

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Instructor involvement

Natalie Michaud: "This requires instructors to be flexible, responsive, and accountable as well, which must certainly help to create a productive learning environment. Are instructors reluctant to implement/use this feature because of the work it entails?"



Perusall Feedback — Technology

- grouping
- scoring
- LMS
- synchronous use
- content

Grouping

Leire Nuere Salgado: "How are made these groups? Sometimes it is interesting to mix people so we can grant diversity (age, gender, cultural background, etc.)."

Scoring

Miguel Montes: "Does the platform offer tools for measuring the engagement?"

Juan Pablo Del Alcázar Ponce: "Does this function evaluate "time in the document" or interactions?"

Elsa Estevez: "I would like to know more about how it works and to discuss the use of AI in teaching and learning processes "

Scoring

Leire Nuere Salgado: "Interesting. I'm curious about my result How does it work with non-native speakers? How accurate it's the system?"

LMS

Raul Moncayo: "The challenge is to create pedagogical and practical material that motivates reading, either through an LMS platform, papers or more didactic books."

Content

Leire Nuere Salgado: "What works better preclass reading or pre-class videos?"

Documents you can use with Perusall

- PDF, Word, html, or ePub files (free)
- video—YouTube, Vimeo, Google Drive, Dropbox (free)
- open access material (free)
- source code with syntax highlighting (free)
- books (purchased by students or institution)



- asynchronous preparation
- synchronous time for discussion

Reflection

- asynchronous preparation
- synchronous time for discussion
- dig deeper post-session

Upgrading to Instructor Account

- log in to your Perusall Account
- click "Enroll in Course"
- enter code: VVTQIBJNVK

for a copy of this presentation:

mazur.harvard.edu

additional resources in Perusall course also see bit.ly/fliponline

Follow me! @eric_mazur