



University
of Rochester

Engage, Interact, Participate: Exploring Instructional Technology Tools

Eric Fredericksen, EdD

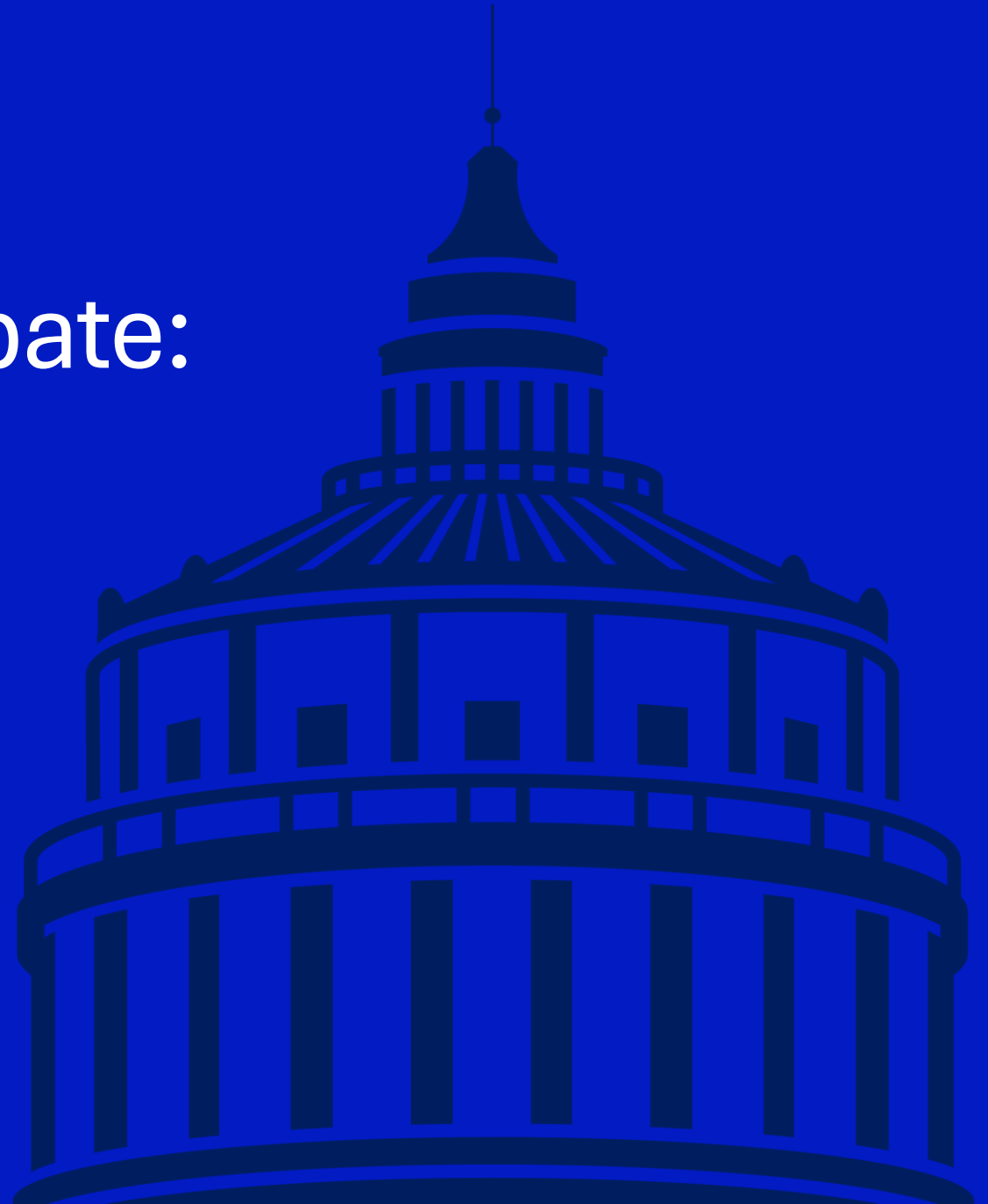
Associate Vice President for Online Learning

Professor in Educational Leadership

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Assistant Director

University IT & URMCI Institute for Innovative Education



Workshop Learning Objectives

Participants will be able to...

- Identify instructional use cases for tools offered at UR
- Match tools to specific teaching
- Select at least 1–2 tools to pilot in their own teaching

This is not a HOW-TO Workshop



Common Instructional Needs

Deeper thinking and interaction

Engage with content before class

Quick idea generation or feedback

Collective thinking

Active engagement with content

Check understanding

Real time insight into student thinking

Track participation

Start with the Goal, Not the Tool

You want real-time insight into student thinking
You need quick feedback during class
You want to track participation easily



Participation and Feedback

You want students to engage with content before class
You need students to check their understanding



Interactive Content
Knowledge Checks

You want all students contributing at once
You need quick idea generation or feedback
You want visible, collective thinking



Collaboration and
Co-Creation

You want deeper thinking and interaction



Discussion and Dialogue



Tying it to the Tools



Participation and Feedback

Participation and Feedback

You want real-time insight into student thinking

You need quick feedback during class

You want to track participation easily

Tracking participation and attendance trends



Real-time polling during class
Mid-lecture comprehension checks
Opinion polls to spark discussion



Poll Everywhere

In-person or Online

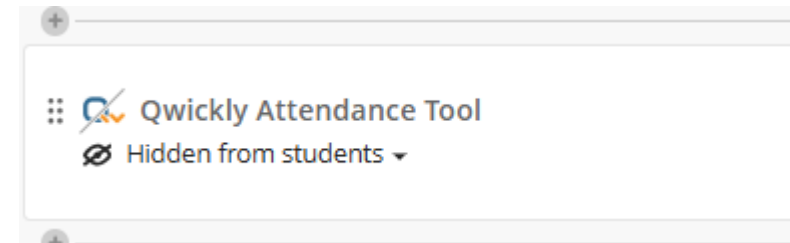
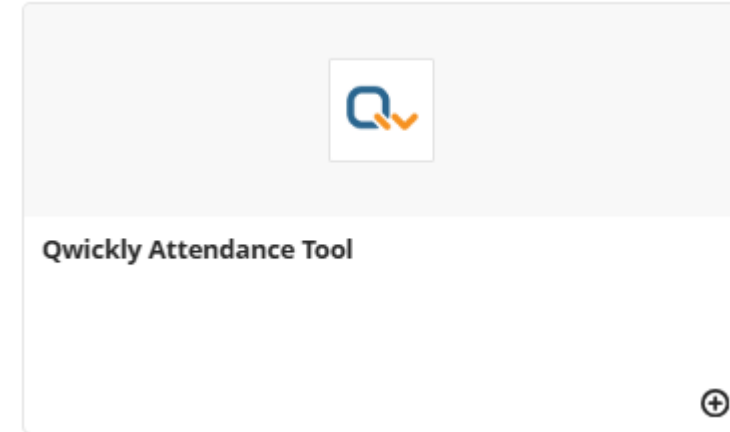
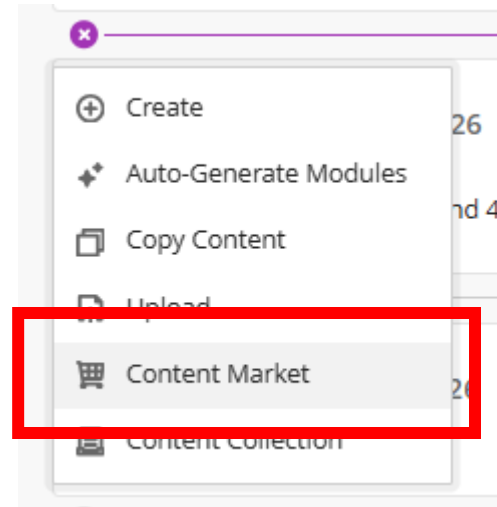


Online Synchronous

Qwickly Attendance

Details & Actions

-  Roster
[View everyone in your course](#)
-  Course Image
[Edit display settings](#)
-  Attendance
[Mark attendance](#)
-  Books & Tools
[View course & institution tools](#)
-  Question Banks
[Manage banks](#)
-  Qwickly Attendance
[Launch](#)



Qwickly: Begin Setup

Qwickly

Begin Setup



AUTOMATIC GRADING

Keep grades up to date all semester long.



CREATE CUSTOM STATUSES

Your experience tailored beyond present and absent.



SEND ABSENCE EMAIL

Automatically notify students when they are marked absent.

Qwickly: Settings

Welcome
Profess...

Attendance >

Course Report

Records

Settings

Settings

Course Name

Course ID

Preferences

Attendance
Statuses

Automatic
Emails

Grading

User Sorting

Select the sort order to display users in this course. Names will be in ascending order of the selected field.

☐ Last Name

☐ First Name

☐ Username

Save
Settings

Quickly: Attendance Taking Methods

- Small Class (under 30 students)
 - List – Manual
- Medium Size Class (30-75 students)
 - Card Reader – Using Student ID card and reader
- Larger Class (over 75 students)
 - Check-in – PIN
 - Check-in – QR code (uses mobile app)

Qwickly: Grading

Grading

Choose which grading method you'd like to use to create a column in your LMS gradebook. If you do not want to use grading, leave these empty.

☐ Session Based Grading Column

Use this if you want to award points for attending a session.

☐ Absence Based Grading Column

Use this if you want to award or subtract points per absence. Any criteria entered here will be reflected in the LMS gradebook, not in Qwickly's attendance records.

☒ Session Based Grading Column

Use this if you want to award points for attending a session.

☒ Total Points

Use total points to define a total number of points that attend:

For example, if Total Points is defined as 100, a student with 2

☐ Points Per Session

Use points per session to define a total number of points earned

For example, if Points Per Session is defined as 5, a student with

Column Name:

Points:

☒ Absence Based Grading Column

Use this if you want to award or subtract points per absence. Any criteria entered

Column Name:

Total Column Points:

Points Per Absence:

Define a number of points for each absence. If you want to subtract points per

☐ Forgive Absences

If enabled, instructors will be able to define a number of absences a student

Poll Everywhere

[How it works](#)[Pricing](#)[Support](#)[Enterprise](#)[Log in](#)[Sign up](#)

Live interactive audience participation

Engage your audience or class in real time

[Get started](#)

Ask a question

Use multiple choice questions to identify gaps in understanding, or kick off group discussions with a colorful word cloud.



Collect live responses

Invite the audience to respond simultaneously by visiting a website or texting a number on their phones.



See instant results

Responses appear in an animated graph or chart embedded in your presentation. Results update live for all to see.



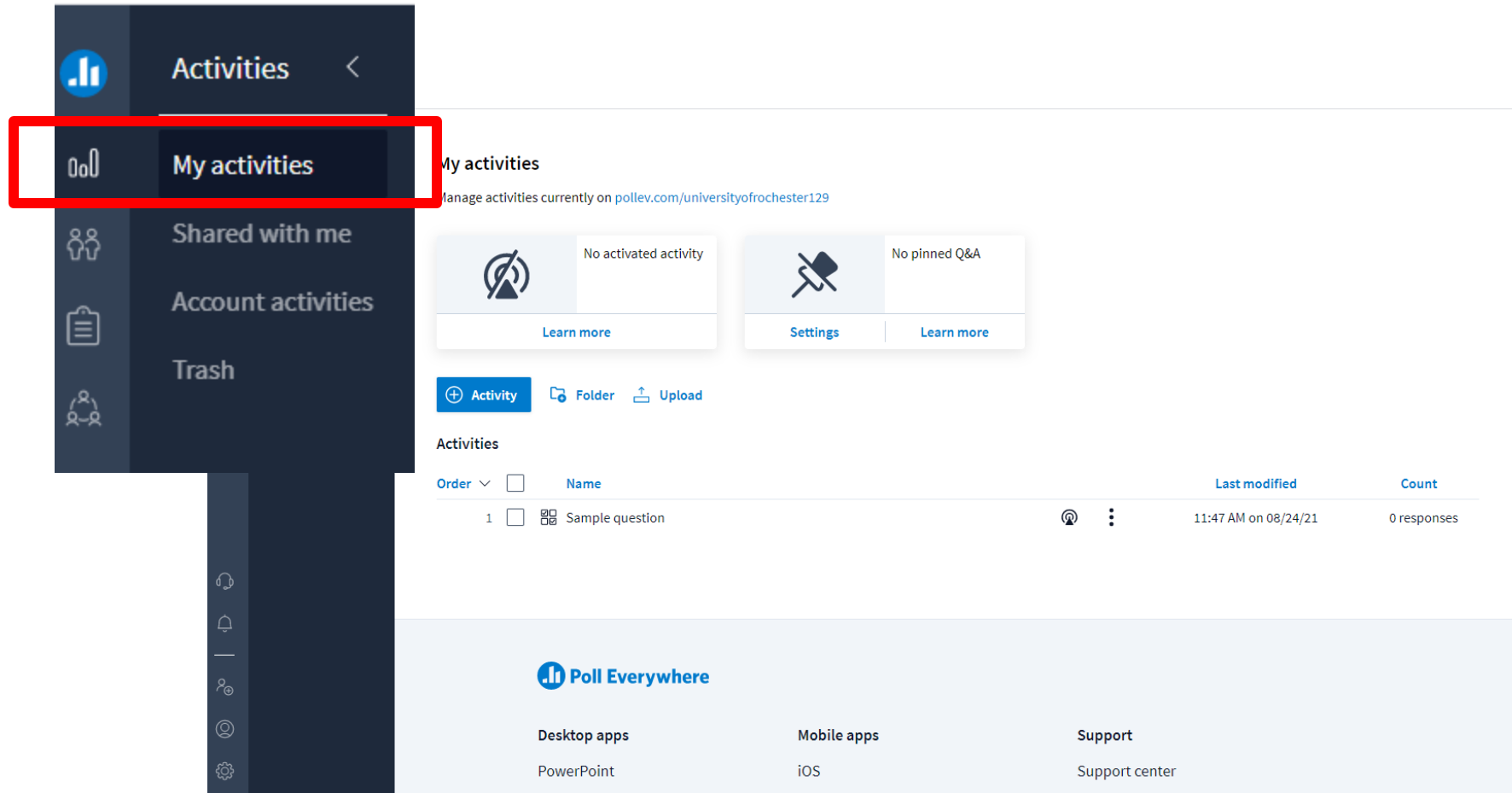
<https://www.polleverywhere.com>

Create your account

Create Activities

Present Activities

Home Screen



Activities <

My activities

Manage activities currently on pollev.com/universityofrochester129

No activated activity [Learn more](#)

No pinned Q&A [Settings](#) [Learn more](#)

[+ Activity](#) [Folder](#) [Upload](#)

Activities

Order	Name	Last modified	Count
1	Sample question	11:47 AM on 08/24/21	0 responses

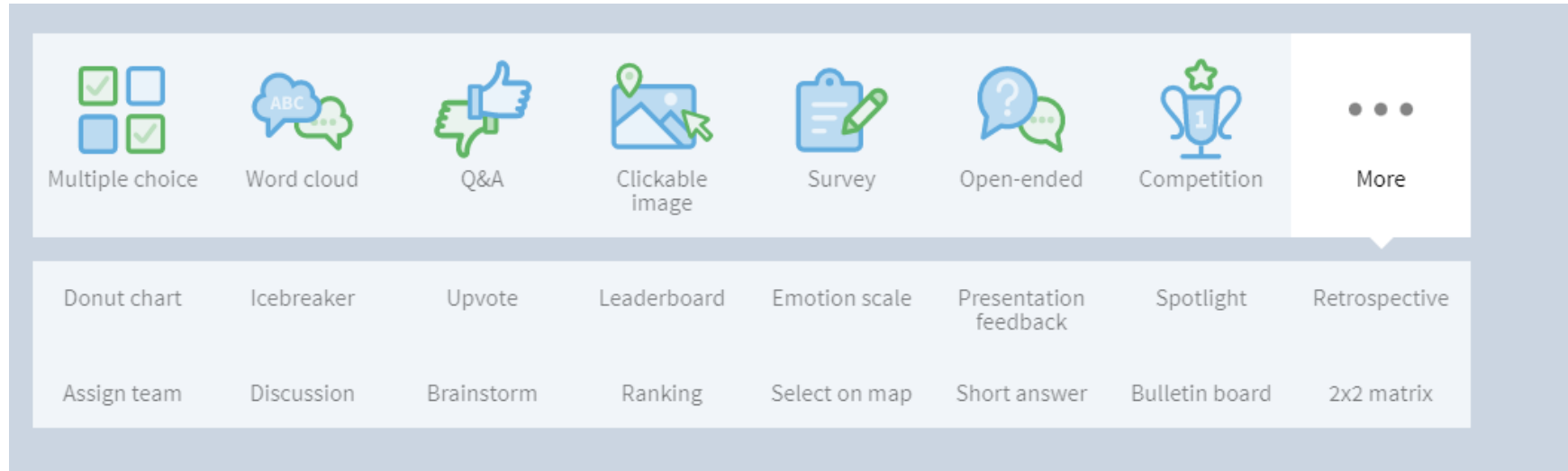
Poll Everywhere

Desktop apps: PowerPoint

Mobile apps: iOS

Support: Support center

Many Types of Activities



As shown from web site

Demo



Dale Chihuly

0%

Dominick Labino

0%

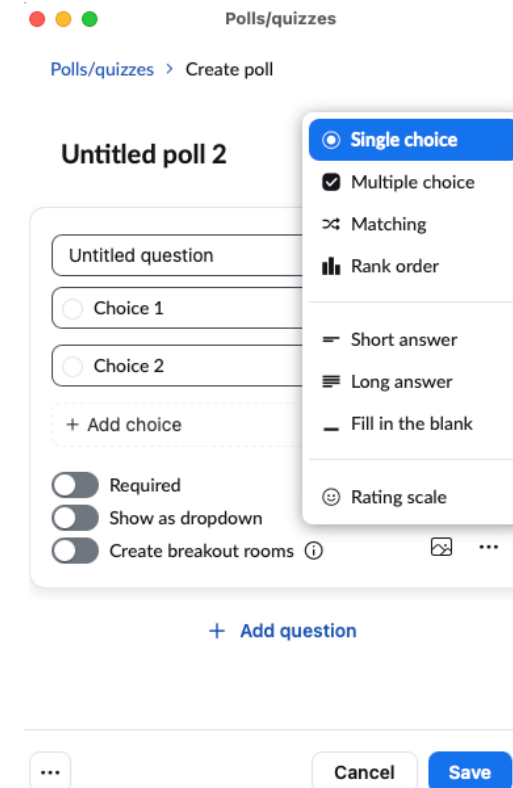
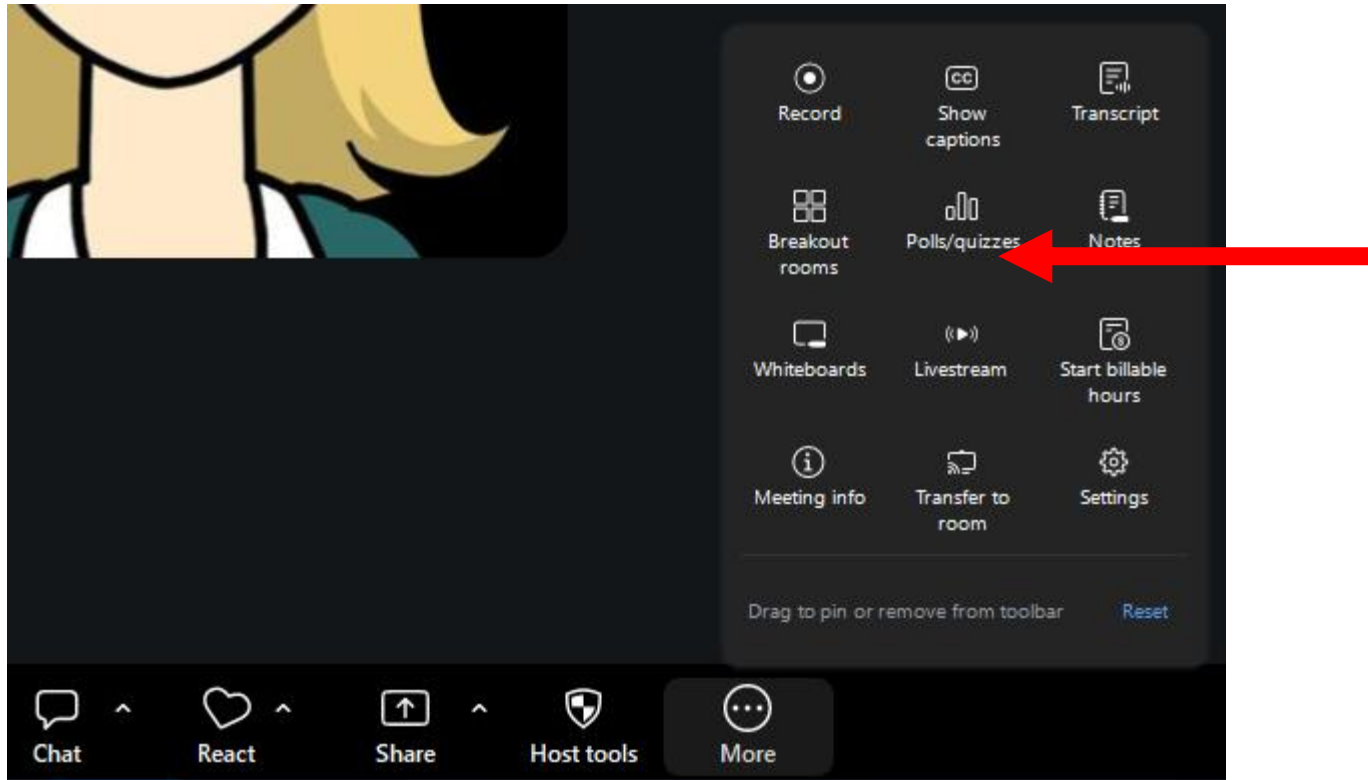
Rene Lalique

0%

Pollev.com/lisabrown528

Send **lisabrown528** to **22333**

Zoom Polling Feature



Demo

Use Polls

Will you use Polling in a future class?

☒ Single choice 

☐ Yes

☐ No

☐ Maybe

+ Add choice

☒ Required

☒ Show as dropdown

☐ Create breakout rooms 



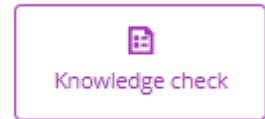
Interactive Content Knowledge Checks

Interactive Content / Knowledge Checks

You want students to engage with content before class

You need students to check their understanding

Create “self-check” knowledge checks



Embed questions into videos
“Watch and respond” video lectures

Practice quizzes with feedback

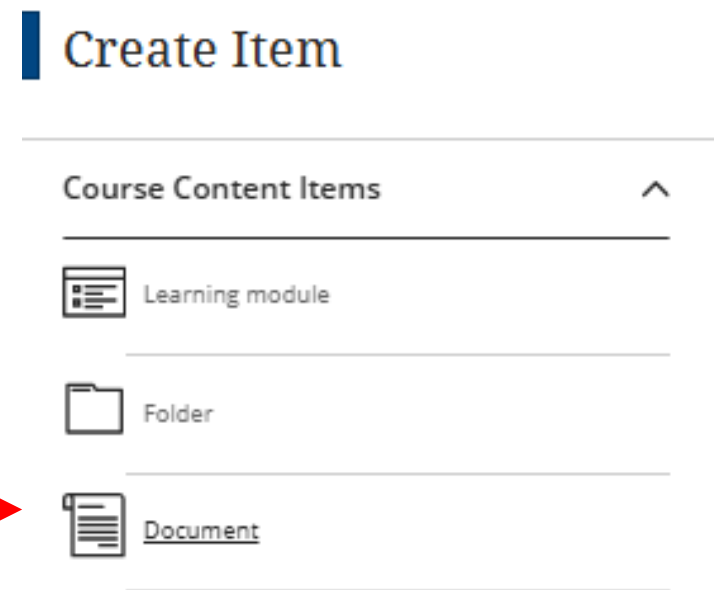
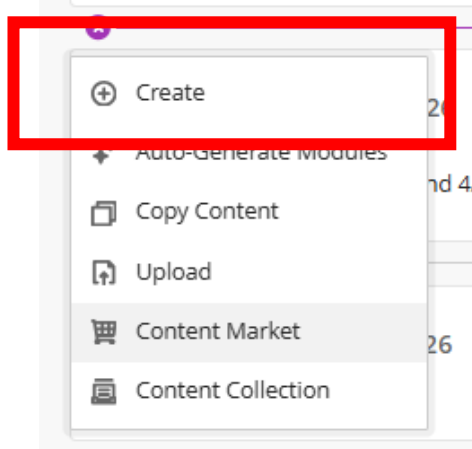
Assessment ^



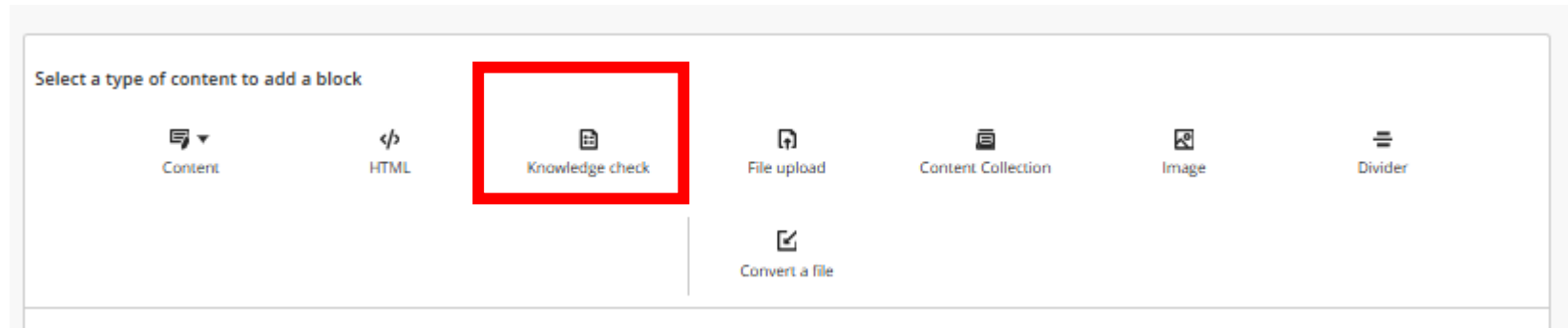
Test

Blackboard Knowledge Checks

- Ungraded questions
- Located within a Document



Add a Knowledge Check



How would you like to create your Knowledge Check?

Enter my question

or

Auto-generate question

The screenshot shows a dialog box for creating a knowledge check. It features a document icon at the top. Below the title, there are two buttons: 'Enter my question' and 'Auto-generate question', separated by the word 'or'. The 'Auto-generate question' button has a small star icon.

Example

A **fossil** (from [Classical Latin](#) *fossilis*, *lit.* 'obtained by digging')^[1] is any preserved remains, impression, or trace of any once-living thing from a past [geological age](#). Examples include [bones](#), [shells](#), [exoskeletons](#), stone imprints of animals or [microbes](#), objects preserved in [amber](#), [hair](#), [petrified wood](#) and [DNA](#) remnants. The totality of fossils is known as the *fossil record*. Though the fossil record is incomplete, numerous studies have demonstrated that there is enough information available to give a good understanding of the pattern of diversification of life on Earth, and it can fill gaps in our understanding of the sequence of evolution on earth.^{[2][3][4]}

[Paleontology](#) includes the study of fossils: their age, method of formation, and [evolutionary](#) significance. Specimens are sometimes considered to be fossils if they are over 10,000 years old.^{[5][6][7]} The oldest fossils are around 3.48 billion years^{[8][9][10]} to 4.1 billion years old.^{[11][12]} The observation in the 19th century that certain fossils were associated with certain rock [strata](#) led to the recognition of a [geological timescale](#) and the [relative ages](#) of different fossils. The development of [radiometric dating](#) techniques in the early 20th century allowed scientists to quantitatively measure the [absolute ages](#) of rocks and the fossils they host.

There are many processes that lead to [fossilization](#), including [permineralization](#), casts and molds, [authigenic mineralization](#), replacement and recrystallization, adpression, [carbonization](#), and bioimmuration.

Fossils vary in size from one-[micrometre](#) (1 µm) bacteria^[13] to [dinosaurs](#) and trees, many meters long and weighing many tons. The largest presently known is a *Sequoia* sp. measuring 88 m (289 ft) in length at Coaldale, Nevada.^[14] A fossil normally preserves only a portion of the deceased organism, usually that portion that was partially [mineralized](#) during life, such as the bones and teeth of [vertebrates](#), or the [chitinous](#) or [calcareous](#) exoskeletons of [invertebrates](#). Fossils may also consist of the marks left behind by the organism while it was alive, such as [animal tracks](#) or [feces](#) ([coprolites](#)). These types of fossil are called [trace fossils](#) or *ichnofossils*, as opposed to *body fossils*. Some fossils are [biochemical](#) and are called *chemofossils* or *biosignatures*.

Instructor sees statistics



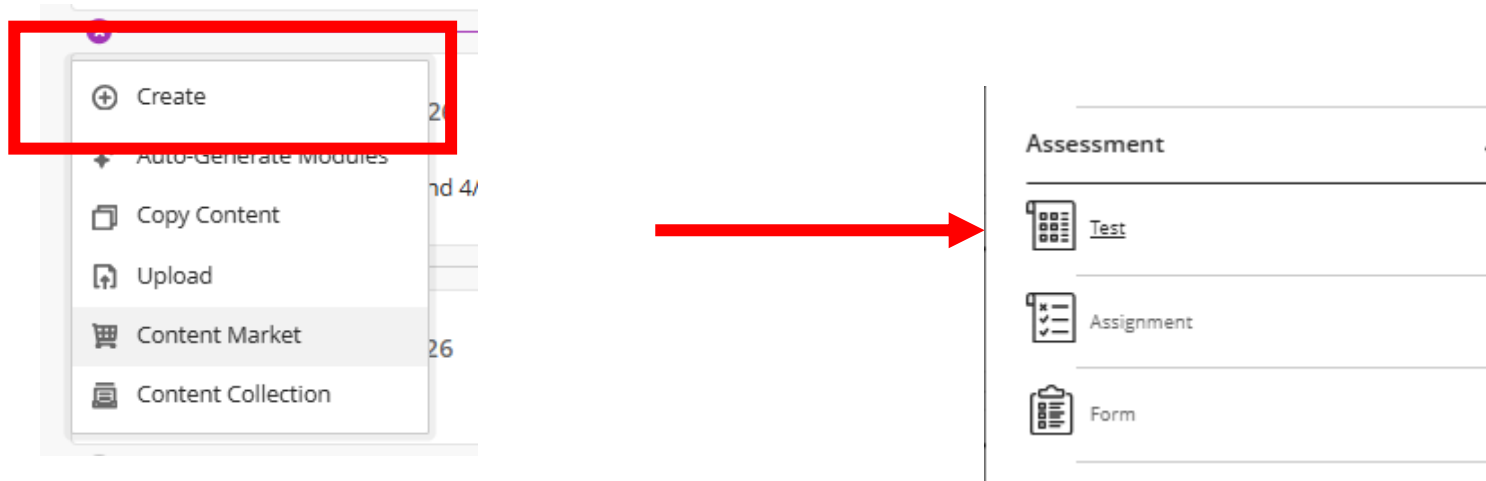
Knowledge Check results

0 of 12 Students	0 Overall attempts	0 Avg. attempts to correct answer	0 Max. attempts to correct answer	-- Difficulty
---------------------	-----------------------	--------------------------------------	--------------------------------------	------------------

What is the science of studying fossils called?

- ☐ A. Genetics
- ☒ B. Paleontology
Correct answer
- ☐ C. Archaeology
- ☐ D. Astrophysics

Blackboard Tests



Best Practices

- Use Auto-graded question types
 - Multiple Choice, True/False, Matching, Hot Spot
- Provide feedback for correct and incorrect answers
- Settings for Assessment Results
 - Show all after submission or after due date
- Auto-post grades

Assessment grade

- ✓ **Post assessment grades automatically**
Automatically posts the grade when the assessment is graded. The feature covers automatically and manually graded assignments, and tests with auto-graded question types. Turn the setting off if you want to manually control grade publication.

✓ Automated Feedback Available after submission ⓘ

CORRECT ANSWER FEEDBACK

Great job

INCORRECT ANSWER FEEDBACK
This feedback also applies to partial credit answers

Review the state capitals again

Assessment results timing ✕

Customize when the submission content is visible to students.

✓ Allow students to view their submission

After submission ▾

Submission feedback settings
Question feedback, scores and answers availability conditions will apply to the following settings.

✓ Show question feedback

After submission ▾

✓ Show question scores ⓘ

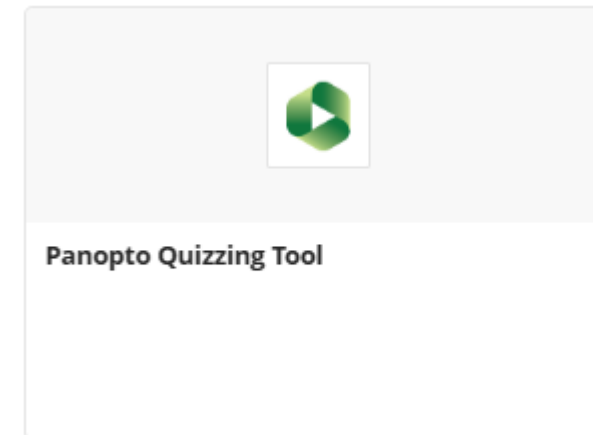
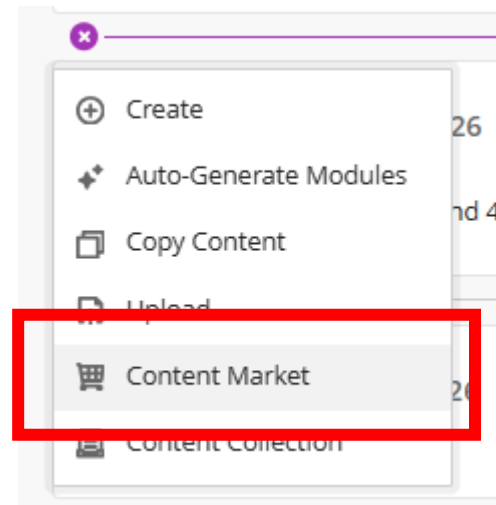
After due date ▾

✓ Show correct answers ⓘ

After due date ▾

Panopto Video Quiz - Steps

- Add Panopto to your course (Panopto Course Folder Tool)
- Create your video (Zoom recording works for this)
- Upload your video (through the Course folder tool)
- Edit your video in Panopto and add a Quiz question
- Add the Panopto Quiz tool into your course



Choose the video and grading type

How would you like to grade this assignment?

☐ Grade on % viewed

☒ Grade on quiz results

Continue

Panopto Quizzing Tool

Test: Ultra.LisaBrown2024 - Face Off: All about Hockey

Choose

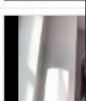
☐ 

☐ 

☐ 

☐ 

☐ 

☐ 

List of videos in course folder

Course Content

 Video Quiz

 Visible to students ▾

No due date



Collaboration and Co-Creation

Collaboration and Co-Creation

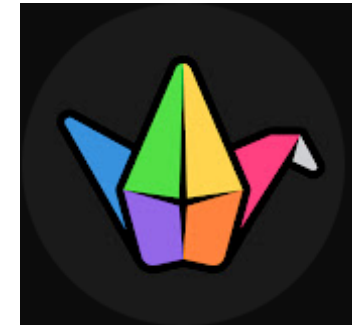
You want all students contributing at once

You need quick idea generation or feedback

You want visible, collective thinking

Group concept mapping
Brainstorming and idea generation
Shared resource boards
Anonymous idea sharing

Synchronous or
Asynchronous participation



Online Synchronous
Participation



Padlet

- Create your account
- Login and create your Padlet
- Set Share properly
- Share the link

<https://tech.rochester.edu/padlet/>

Made by me



×

Share this board



Copy link



QR code



Breakout rooms



Embed



Export PDF

Permissions ?

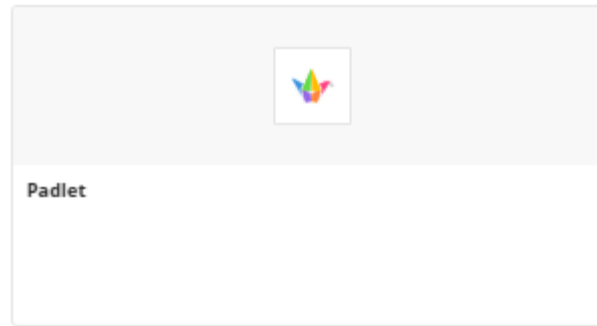
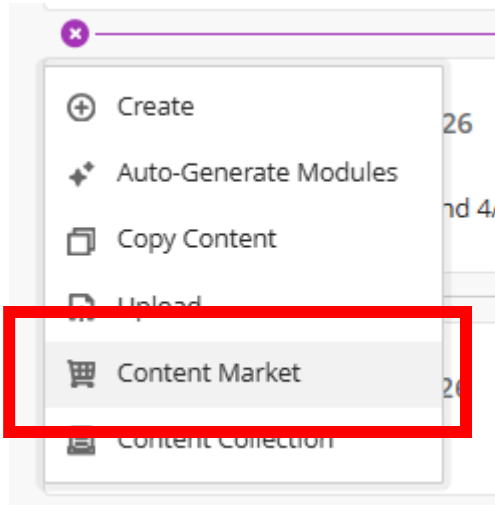
Visitors with a link

Writer ▾

University of Rochester members

Writer ▾

Using Padlet within Blackboard

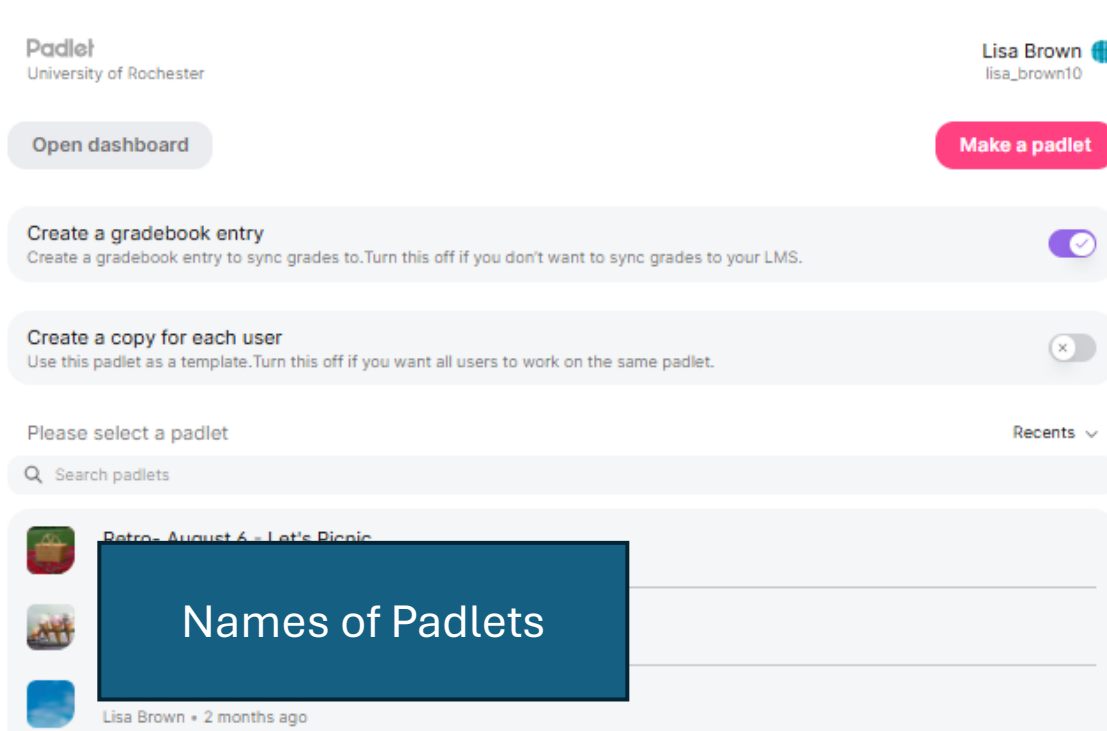


Allows for Grading based on Posts

Allows you to create a template and each student generates their own version

Students are all named when commenting/posting

Select Padlet and Settings

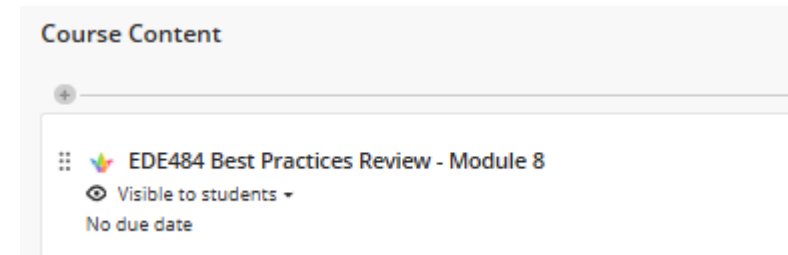


The screenshot shows the Padlet interface for a user named Lisa Brown from the University of Rochester. The interface includes a top navigation bar with the Padlet logo and the user's name. Below the navigation bar, there are several settings sections: 'Open dashboard' (a button), 'Create a gradebook entry' (a toggle switch that is turned on), and 'Create a copy for each user' (a toggle switch that is turned off). Below these settings, there is a section titled 'Please select a padlet' with a search bar and a dropdown menu set to 'Recents'. A list of padlets is displayed below the search bar, with the first padlet titled 'Retro- August 6 - Let's Picnic' and the second padlet titled 'Lisa Brown • 2 months ago'. A blue box with the text 'Names of Padlets' is overlaid on the list of padlets.

Grading available

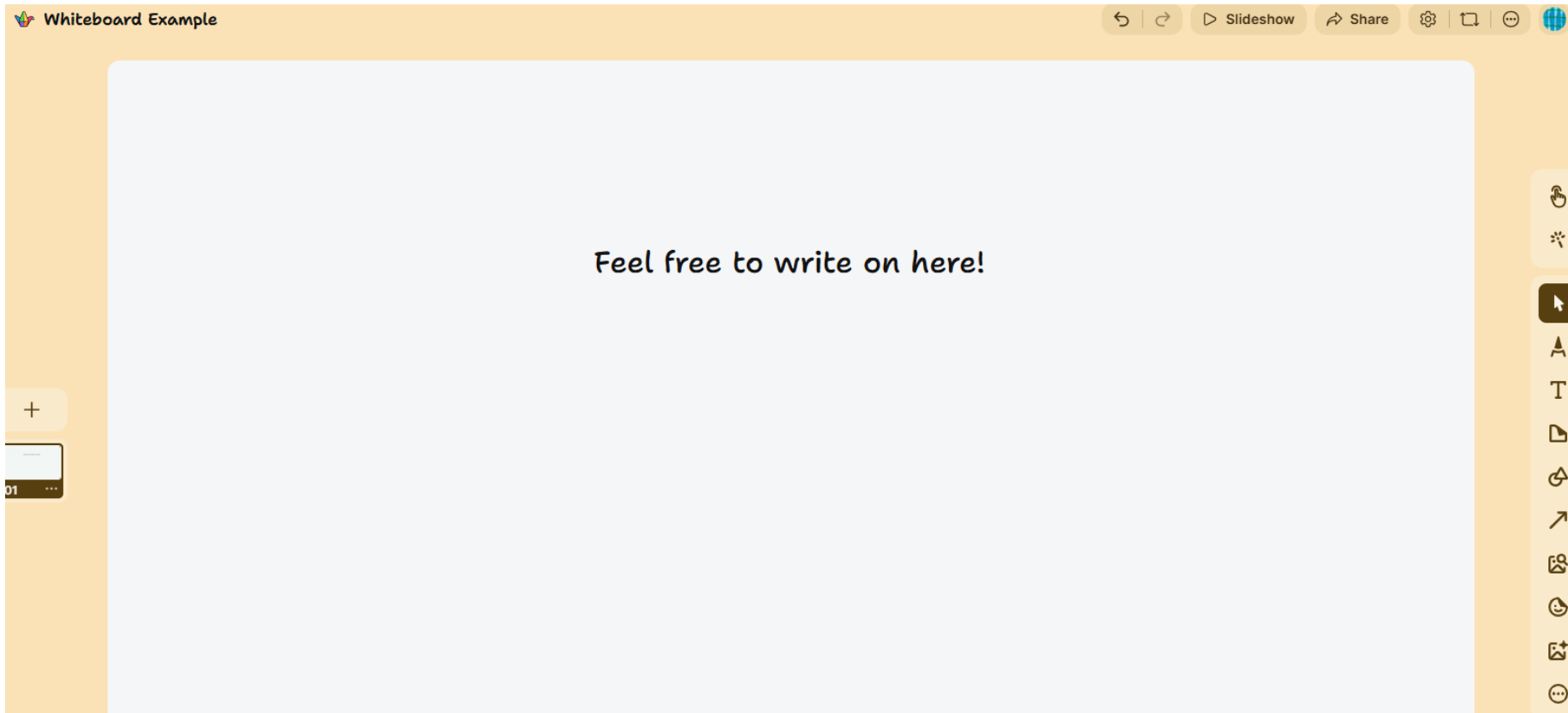
Is this a template?

Choose from existing padlets



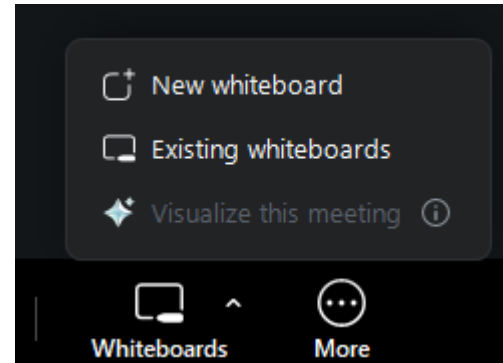
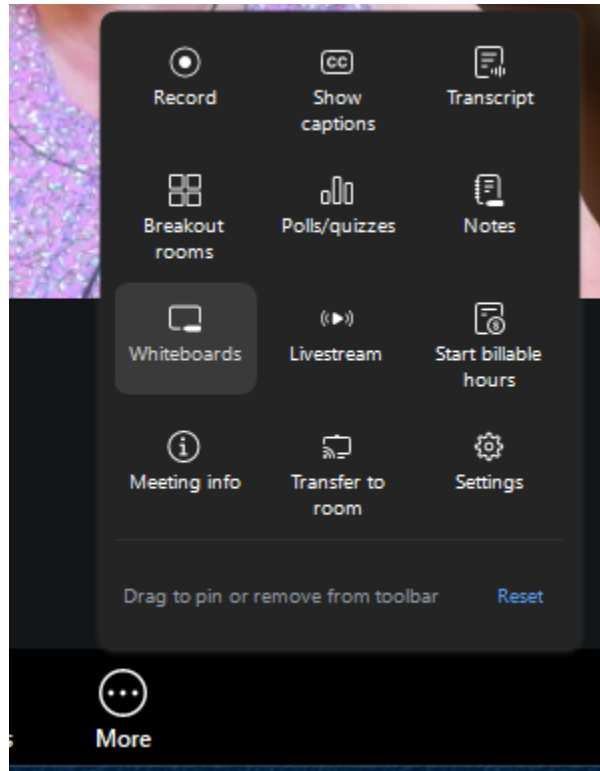
The screenshot shows the 'Course Content' section of a learning management system. It features a plus icon in a circle at the top left. Below this, there is a list item for 'EDE484 Best Practices Review - Module 8'. This item has two sub-items: 'Visible to students' (with a dropdown arrow) and 'No due date'.

Demo

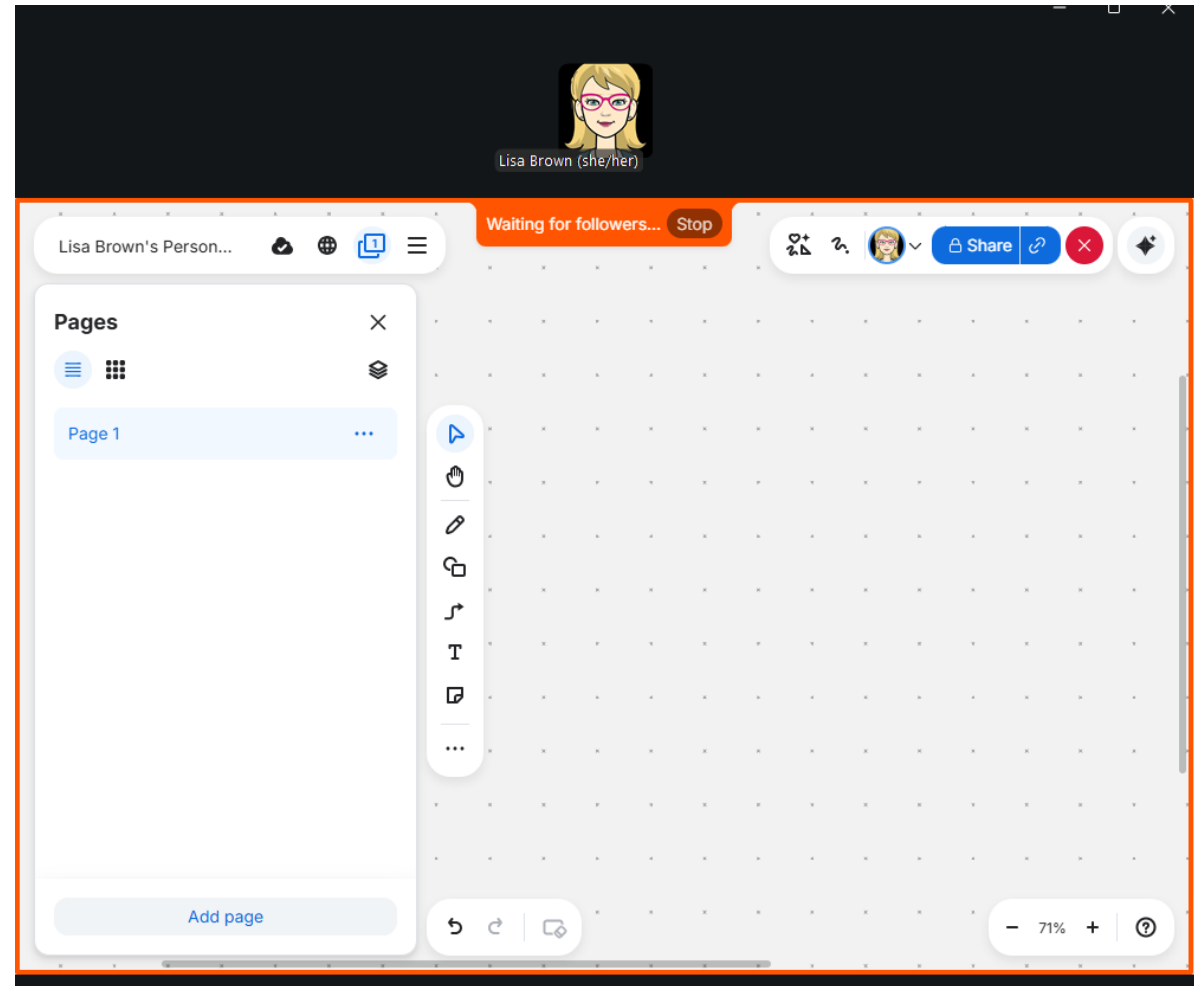


<https://padlet.com/rochester/whiteboard-example-e1yecq3yevm35k2x>

Zoom Whiteboard



Demo





Discussion and Dialogue

Discussion and Dialogue

You want deeper thinking and interaction

Text-based discussion threads

Participation and Engagement

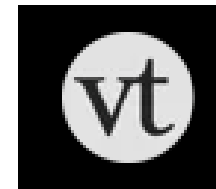


Pre-class reading discussions

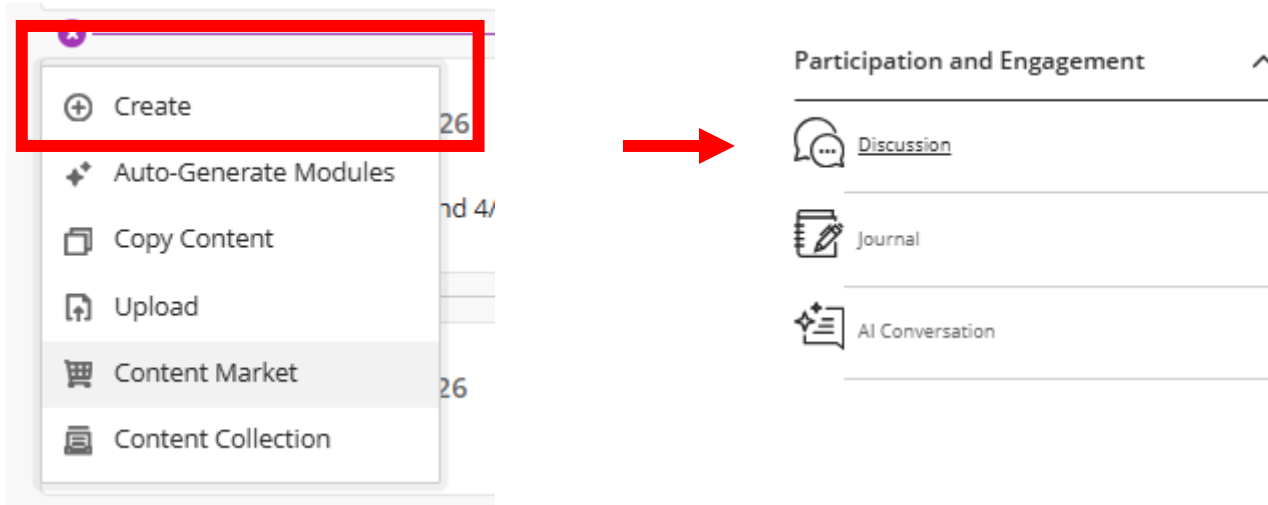
Multi-faceted discussion threads



Visual/media critique with voice comments



Blackboard Discussion Board



Best Practices

- Create a good prompt – Use AI to assist
- Set Due Dates
 - First for posting
 - Second for replies
- Use Post First if you need students to post without seeing other students work

☒ **Post first**
Hide discussion activity until student responds

- Grade, even if only for participation
- Use a rubric for more serious grading

Grading and Participation

Due Date

8/19/26



7:02 PM



Participation Requirement

1



Post



Second Due Date

Adds a second due date requiring students to contribute new posts and/or replies after the initial deadline

8/20/26



7:03 PM



Participation Requirement

2

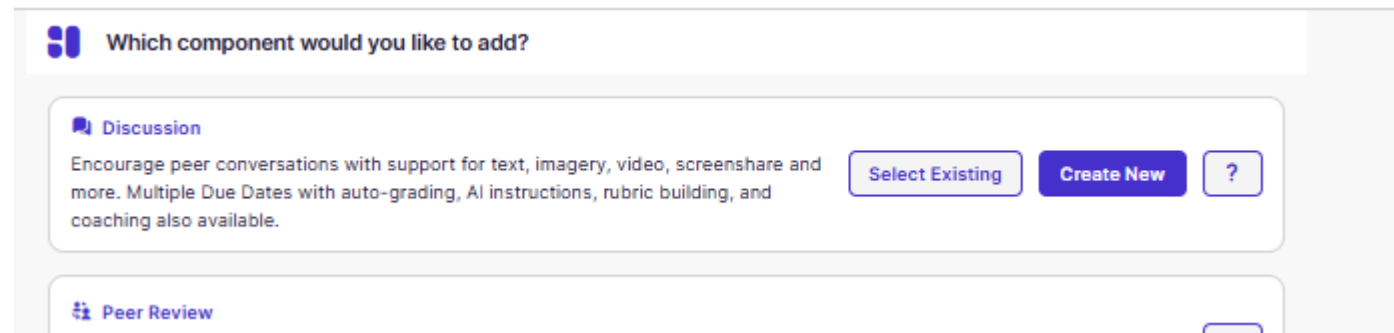
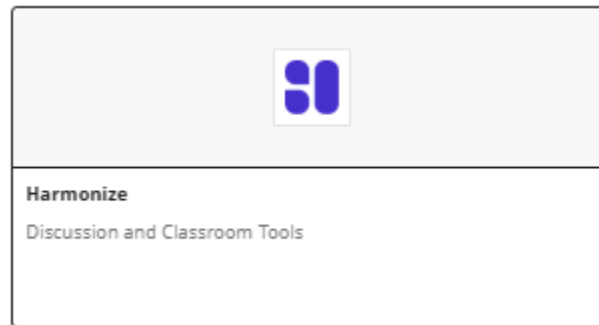
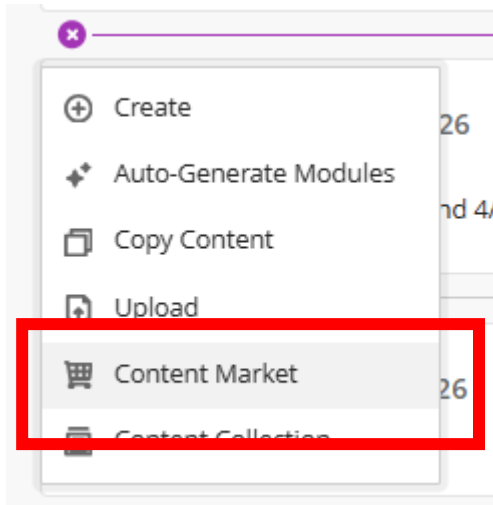


Post or Reply



Harmonize Discussion Board

- Multiple Milestones (due dates)
- Ability to Use Text and Video for posts, comments, replies
- Auto-grading available



Harmonize – video-based content

 Demonstration of Teaching Assignment Video Post and Peer Review

38 students have completed the assignment. Visit [Activity](#) for details.

[Show Instructions](#) > Watch Topic ☐ Grades & Activity Edit

 + Create new post

View by:   Sort By: Newest Search Posts & Comments

<< < 1 2 > >>



New

M
T

Teaching Demo

3  0
Comments Teacher



New

M
L

IV Placement

3  0
Comments Teacher



New

M
L

Demonstration of HEENT exam

5  0
Comments Teacher



New

M
L

Think-Pair-Share Teaching Assignment

3  0
Comments Teacher



New

M
L

Demonstration of 1:1 'Prepare to Adapt' Framework

4  0
Comments Teacher



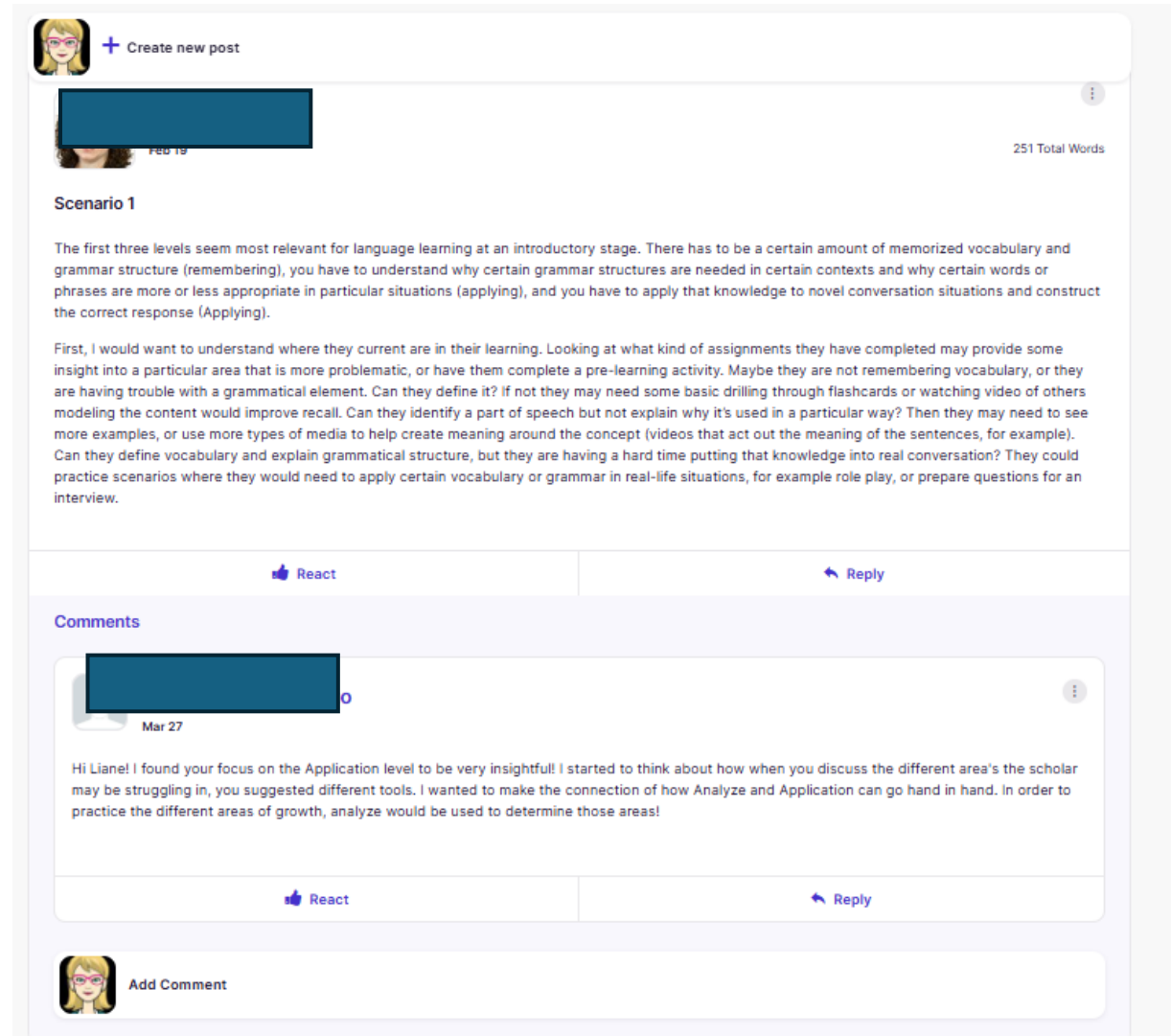
New

M
L

Gastroscope Set Up

6  0
Comments Teacher

Harmonize – text-based content



The screenshot displays a Facebook post and its comment section. At the top, there is a header with a user profile picture and a '+ Create new post' button. Below this, a post by a user (profile picture obscured by a blue box) is shown, dated 'Feb 19', with a '251 Total Words' label. The post content is titled 'Scenario 1' and contains two paragraphs of text. Below the post, there are 'React' and 'Reply' buttons. The 'Comments' section follows, showing a comment by a user (profile picture obscured by a blue box) dated 'Mar 27'. The comment text discusses language learning levels and tools. Below the comment, there are 'React' and 'Reply' buttons. At the bottom, there is an 'Add Comment' button with a user profile picture.

+ Create new post

Feb 19 251 Total Words

Scenario 1

The first three levels seem most relevant for language learning at an introductory stage. There has to be a certain amount of memorized vocabulary and grammar structure (remembering), you have to understand why certain grammar structures are needed in certain contexts and why certain words or phrases are more or less appropriate in particular situations (applying), and you have to apply that knowledge to novel conversation situations and construct the correct response (Applying).

First, I would want to understand where they current are in their learning. Looking at what kind of assignments they have completed may provide some insight into a particular area that is more problematic, or have them complete a pre-learning activity. Maybe they are not remembering vocabulary, or they are having trouble with a grammatical element. Can they define it? If not they may need some basic drilling through flashcards or watching video of others modeling the content would improve recall. Can they identify a part of speech but not explain why it's used in a particular way? Then they may need to see more examples, or use more types of media to help create meaning around the concept (videos that act out the meaning of the sentences, for example). Can they define vocabulary and explain grammatical structure, but they are having a hard time putting that knowledge into real conversation? They could practice scenarios where they would need to apply certain vocabulary or grammar in real-life situations, for example role play, or prepare questions for an interview.

React Reply

Comments

Mar 27

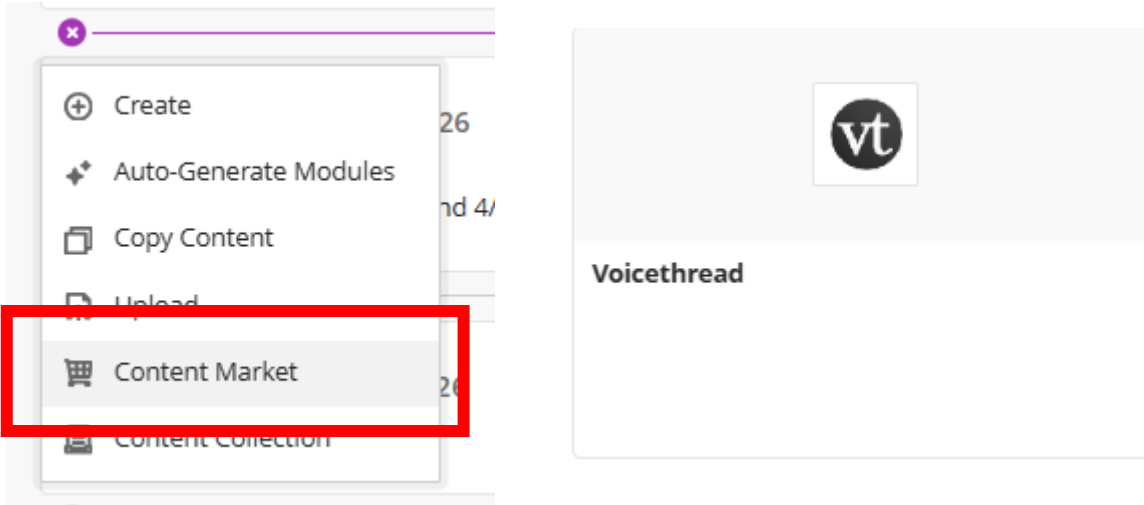
Hi Liane! I found your focus on the Application level to be very insightful! I started to think about how when you discuss the different area's the scholar may be struggling in, you suggested different tools. I wanted to make the connection of how Analyze and Application can go hand in hand. In order to practice the different areas of growth, analyze would be used to determine those areas!

React Reply

Add Comment

Voicethread Discussion

- Useful for Conversational Discussions rather than formal
- Conversation is threaded
- Students can comment/reply in text, audio, or video



Create a Voicethread Assignment

 Choose an activity type

 **Assignment Builder**
Create a graded assignment requiring students to create / comment on / watch a VoiceThread.

 **Individual VoiceThread**
Display a single VoiceThread.

 **Course View**
Display all the VoiceThreads shared with this course.

 **VT Home Page**
Display all VoiceThreads and all courses a student is enrolled in.

Allows for Grading

Comment-type Grading



Assignment Builder



Create

Students are required to make a VoiceThread using a video, image, document, or presentation.



Comment

Students are required to make a comment on a VoiceThread.

Discussion Focused
Starts with Instructor's materials



Watch

Students must watch or listen to an entire VoiceThread.



Reconnect Previous Assignment

Reconnect to an old assignment you have already created through the Assignment Builder.

Example

Slides created by
Instructor with initial
commentary

Student Comments
by Video or Audio

Student Reply by
Video or Audio

← Ten Core Principles Open in full-size tab

PRIOR KNOWLEDGE

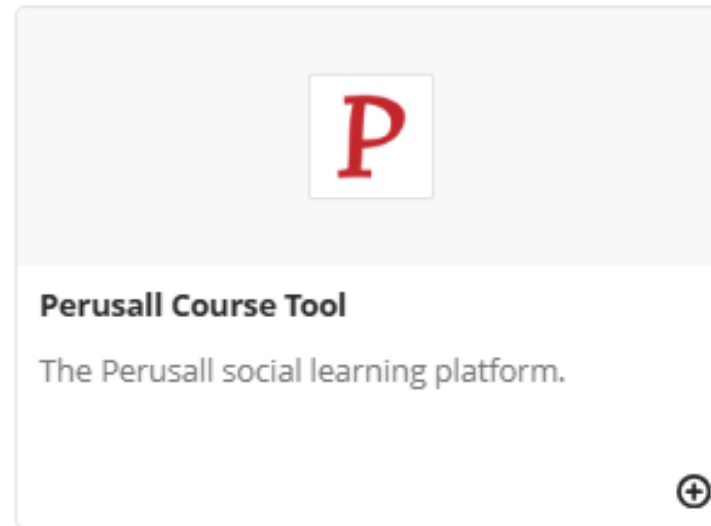
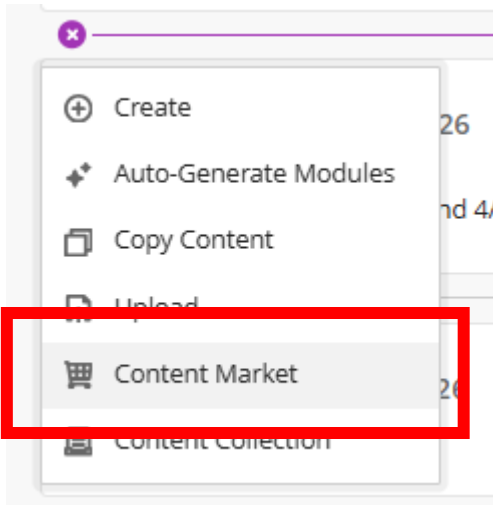
- Actively inquire into student thinking
- Initial conceptions provide a foundation for learning
- Frequent formative assessment makes thinking visible
- Allows for feedback to guide modification and refinement in thinking

DL

3 / 11

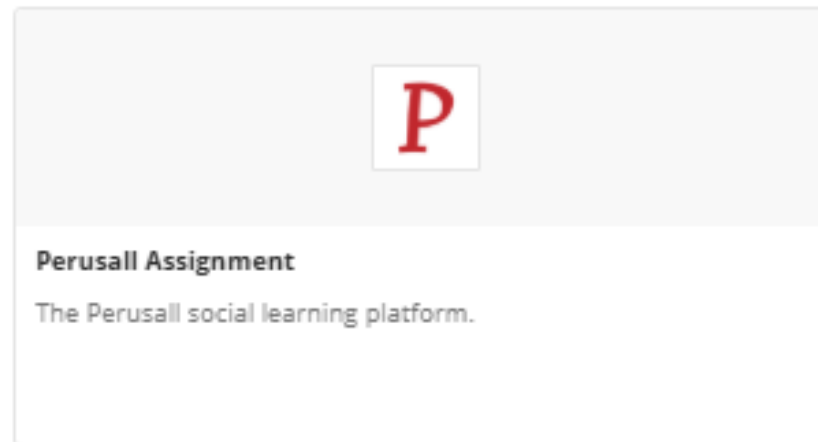
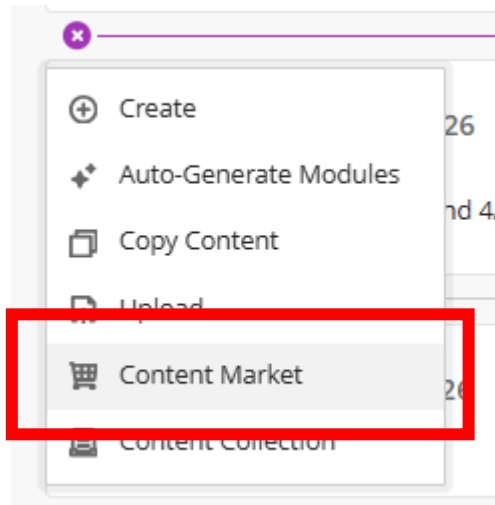
Perusall

- Useful for conversations around a text
- Starts with a document
- Start by creating your Perusall “Course”
- This tool does NOT need to be visible to students



Setup the Course and Assignments

- Within Perusall
 - Load your content into the library
 - Add Assignments based on documents (or videos, or web sites)
 - Return to Blackboard to create links to these assignments



Persuall – Student Interaction with a Document

The screenshot displays the Perusall web application interface. At the top, the Perusall logo is followed by the course path: "Designing Online Courses (EDE486.01.SUMMER2026WSE) > Assignments > Module 2-". Navigation links for "What's new" and "Get help" are present, along with a user profile icon labeled "EF".

Below the navigation bar, a toolbar includes options for "Highlight", "Text", "Figure", "Zoom" (set to 100%), "Page" (set to 1), and "Show" (set to "All comments").

The main document area shows the title "A Preliminary Investigation of 'Teaching Presence' in the SUNY Learning Network". Below the title, the authors are listed: "Peter J. Shea, Eric E. Fredericksen, Alexandra M. Pickett, and William E. Pelz". Their affiliations and contact information are provided: "State University of New York, SUNY Learning Network, SUNY Plaza, N303, Albany, New York 12246, 518.443.5331, 518.443.5167, Peter.Shea@sln.suny.edu, eef22@cornell.edu, Alexandra.Pickett@sln.suny.edu, William.Pelz@sln.suny.edu".

On the right side, a sidebar contains a "Due" date of "June 1, 2026 at 11:59 PM EDT". Below this, an "Instructions" box states: "Please review this article and make at least 3 substantive comments in this document related to teaching presence." A comment box shows a comment from "Shea TeachingPresence" on the "Entire document", marked with a red circle containing the number "1".

A vertical toolbar on the far right includes icons for various document interaction features: comment, highlight, flag, star, share, search, quote, bookmark, and a bell for notifications.



Persuall – Student Interaction with a Document

Perusall Designing Online Courses (EDE486.01.SUMMER2026WSE) > Assignments > Module 2- Student interaction with

What's new Get help EF

ght T Text Figure Zoom 100% Page 4 Show All comments

The authors detail each of these foci - briefly summarized here. Good learning environments are *knowledge centered* in that they are designed in consideration of desired outcomes. Guiding questions for creating a knowledge-centered learning environment include - what do we want students to know and be able to do when they have completed our materials or course? How do we provide learners with the "foundational knowledge, skills, and attitudes needed for successful transfer" [1]?

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A Preliminary Investigation of "Teaching Presence" in the SUNY Learning Network

Good learning environments are also *learner centered*, that is they function in a manner that connects to the strengths, interests, and preconceptions of learners [1] and help students to gain insight into themselves as learners. In such environments teachers work to bridge new content with students current understandings and facilitate growth, while attending to the learners' interests, passions, and motivations. Another characteristic of good learning environments is that they are *community centered*, that is they promote and benefit from shared norms that value learning and high standards. Ideally good learning environments connect to relevant external communities and provide a milieu within the classroom where students feel safe to ask questions, to work collaboratively, and in which they are taught to develop lifelong learning skills.

Finally, the Bransford, et al. [1] emphasize that good learning environments are *assessment centered* meaning that they provide learners with many opportunities to make their thinking visible and to get feedback in order to create new meaning and new understanding.

The guidelines in *How People Learn* [1] provide an excellent framework from which to consider the design of online learning environments, in that they summarize much of what is known about good learning environments generally. However, in addition, we must also consider the specific needs of higher education learners, and focus on lessons learned from research in college level teaching and learning, as these are most relevant to SLN. Are there guidelines that help to determine how to implement a learning-, assessment-, knowledge-, and community-centered environment - one that is designed to engage higher education students specifically?

Certain institutional practices are known to lead to high levels of student engagement. Perhaps the best-known set of engagement indicators is the "Seven Principles of Good Practice in Undergraduate Education." [7]

The seven principles of good practice in undergraduate education identified by Chickering & Gamson [2] reflect much of what is identified by Bransford et al. [1] in the design of good learning environments. These principles distill decades of research on the undergraduate experience, providing some guidance on how best to structure learning in higher education. Chickering & Gamson [2] encourage the following general conditions and behaviors for successful learning: 1) frequent contact between students and faculty; 2) reciprocity and cooperation among students; 3) active learning techniques; 4) prompt feedback; 5) time on task; 6) the communication of high expectations, and 7) respect for diverse talent and ways of learning.

SS I find this conceptual framework help...

SH A knowledge centered environme... 2

I have been thinking about what ... 2

SA This statement stood out to m... 1

LA I do appreciate this because I f... 1

BM Assessment for the win! I think wh...

KD I agree that the seven principles id...

KD I think that this statement is impor...

LN This definition specifies that te... 1

LN I like how the article breaks teaching ...

SA What I find interesting is that teac...

LA I believe this is an important thing be...

SS I spent sometime thinking abo... 1

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Resource links

- Padlet <https://tech.rochester.edu/padlet/>
- Perusall <https://tech.rochester.edu/perusall/>
- Panopto Video Quiz <https://tech.rochester.edu/services/panopto/>
- Harmonize <https://tech.rochester.edu/harmonize/>
- Voicethread <https://tech.rochester.edu/services/blackboard-voicethread-discussion-board/>
- Zoom <https://tech.rochester.edu/services/zoom/>
- Qquickly Attendance <https://tech.rochester.edu/qquickly-attendance/>
- Poll Everywhere <https://tech.rochester.edu/services/polling-poll-everywhere/>



Questions?