Increase Engagement and Student Learning by Activating your Lectures

Dr. Adrienne Salentiny
Teaching, Learning, and Scholarship
UND School of Medicine and Health Sciences

Today's Focus

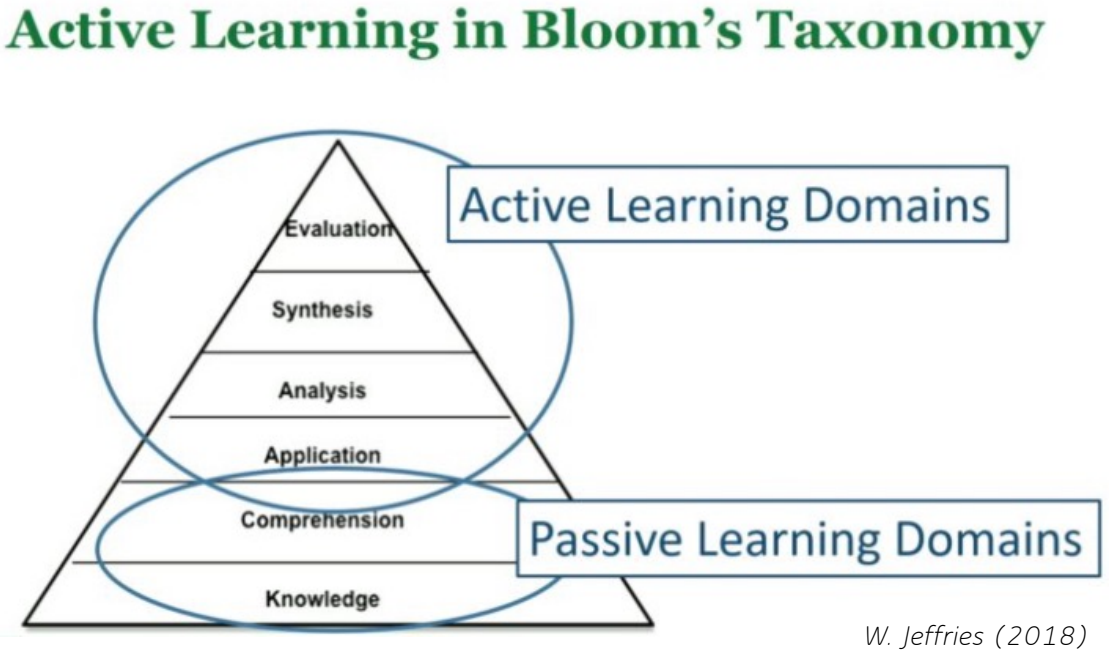
- Concise overview: why add active learning? (5 minutes)
  - Reset attention
  - Culture of inquiry
  - Promote retention
- The EASIEST active learning techniques we can add to lectures (15 minutes)
  - 10-2 Strategy
  - Questioning (some simple ways)
- Implementing easy, free tech tools to support these techniques (30 minutes)

*NOTE: **Today is all about lecture-based activities!** We will NOT be discussing jigsaw (small group breakouts), fishbowl (skits, roleplays), the flipped classroom, and other very effective (but more complex) techniques.*

Why We Keep Talking About Active Learning

Why We Keep Talking About Active Learning

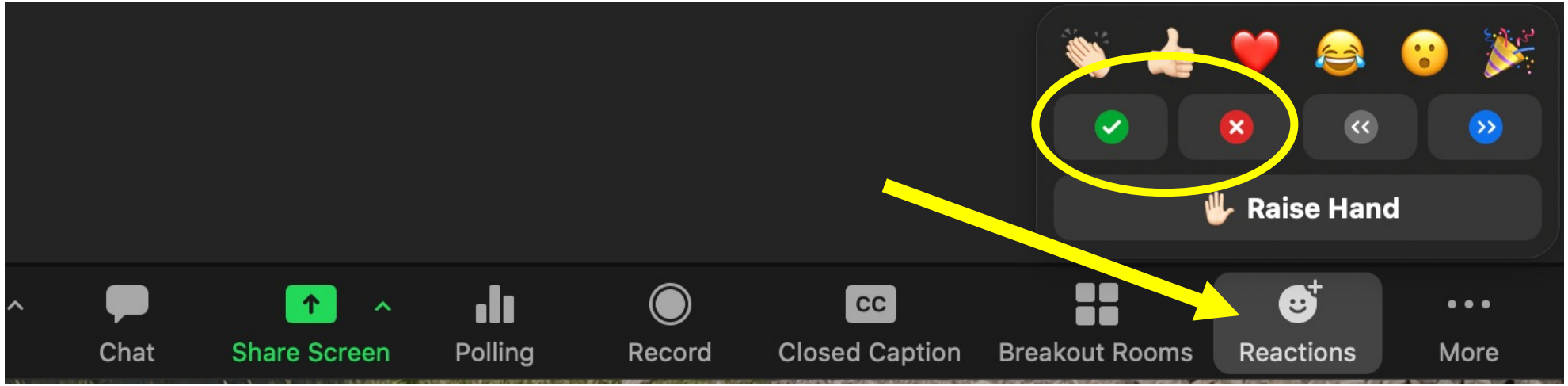
- Model a culture of inquiry; encourage critical thinking
- Guide students through what you (the expert) know is important
- Involve students in their own learning (student-centered vs. passive)
- Gain and retain student attention
- With AL, student performance significantly increases, students significantly less likely to fail. *(Freeman, Scott, et. al, 2014)*



W. Jeffries (2018)

How many of you have checked email or texts, gone online, or otherwise multi-tasked so far while "listening" to this session?

Use Zoom's non-verbal reactions to answer this question. Click the green ✓ if you have done this during my talk; red X if you have not.



Distractions are Completely Normal

- Our brains cannot continuously pay attention to one thing for more than 10 minutes.
  - And it's only that long if we are very, very interested
  - We do not have a one-track mind
  - We may not know we are not paying attention

Two Simple Strategies

The 10-2 Strategy

- Lecture for 10 minutes. Pause, break, or switch up activities for 2 minutes

Brain Break – 2 min

You could….

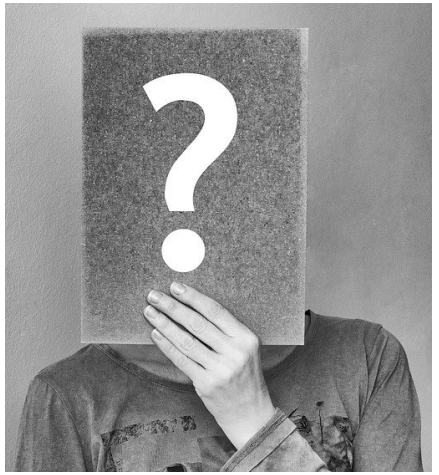
- *Check your messages*
- *Use the restroom*
- *Have a snack*
- *Get up and stretch*
- *Review our last topic*

“But I Can’t Spare the Time!”

- Do you have time for…
  - Students asking for review or office hours because they cannot remember what was said?
  - Remediation of tests due to poor grades?
- Whether or not you have time to pause, students’ brains are pausing themselves.
  - Not the student’s fault
  - Can’t engage in something that is not engaging
- You choose:
  - Lecture for 50 minutes. Lose most of the class at the 8 minute mark. Waste 42 minutes talking to deaf ears. Lose more time on reviews, emails, office-hours, etc.
  - Lecture for 42 minutes. Take 4 breaks summing 8 minutes. Minimize brain-fog, maximize class time learning.
- “Real” breaks are recommended, but not the only way…

Questioning Strategies

- Average student only asks 1 question per 10 hours of instruction
  - Not used to asking questions in lecture-based courses
  - May be told to save questions until the end or ask after class
  - May be worried they are the only one with the question; or question is on a sensitive topic
- How to build a culture of inquiry
  - Build in Q&A time (use the concept of 10-2)
  - Provide a small reward for those who ask (or answer) questions
  - Use available technology to set up polls and surveys
  - Pre-warn them that Q&A is coming so they can prepare their questions.
  - Force yourself to wait, even 30 seconds of silence before moving on from a question prompt or answering a question yourself.
- As you do it more, students will participate more.
- Ask questions yourself (even if YOU answer them)



X-Ray of a Hand

Here is an x-ray.

- The hand has 5 fingers. The fingers are the long pointy bones branching from the hand.
- The thumb is on the right.
- Each finger has multiple joints.
- You cannot see soft tissue on an x-ray.
  - Soft tissue includes muscles, ligaments, tendons, nerves.

X-Ray of a Hand

Here is an x-ray.

- Can you find the fingers? What do they look like?
- Which one do you think is the thumb? Why?
- How many joints can you see on each finger?
- Can soft tissue, such as muscles or tendons be seen on x-ray?

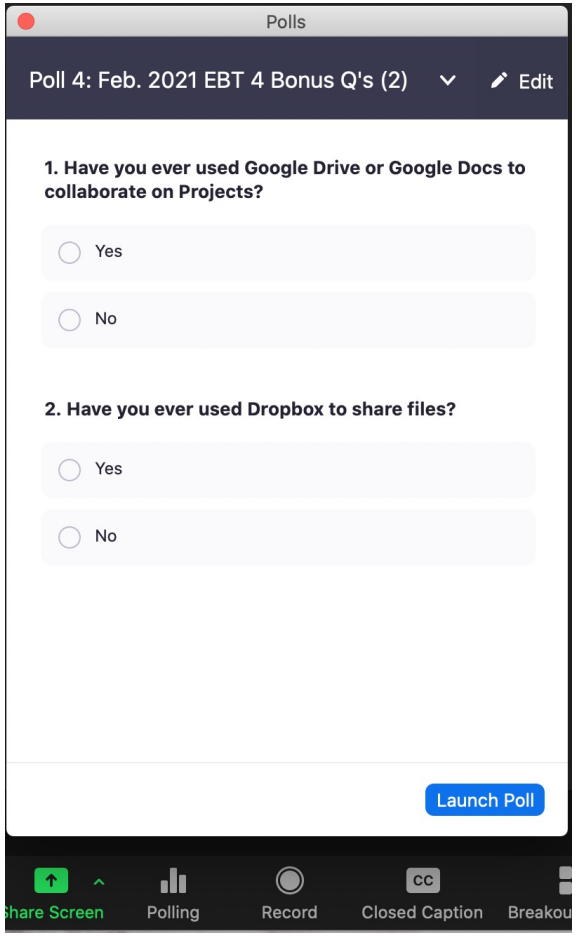
Questions? Connections?

- Use simple images: they should not shift the focus away from the topic.
- Mayer's Coherence Principle – extraneous images can HURT learning.
- Pixabay.com has royalty-free images like this one.

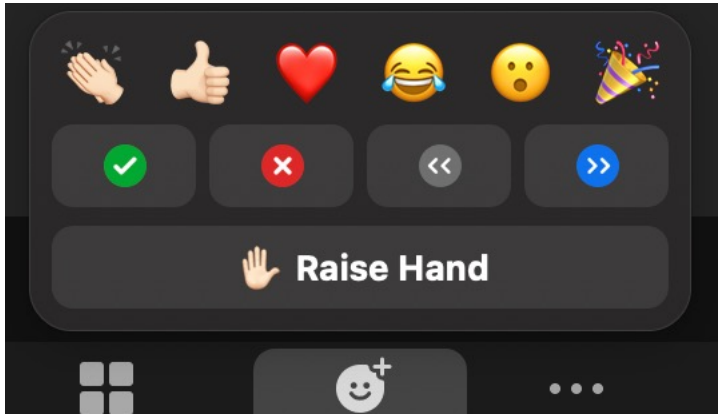
Tech Tools for Questioning

Questioning with Zoom (2 ways)

Zoom Polling
(if using your own account's meeting)



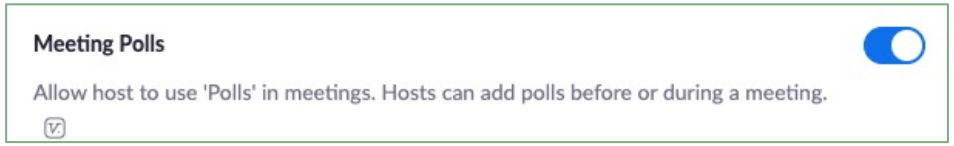
Zoom Non-Verbal Reactions



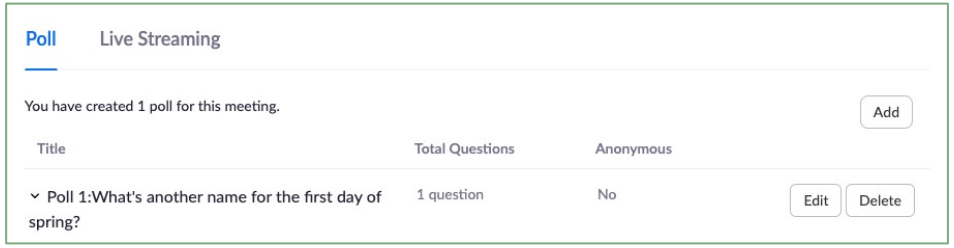
How to Zoom Poll

https://und.zoom.us/profile

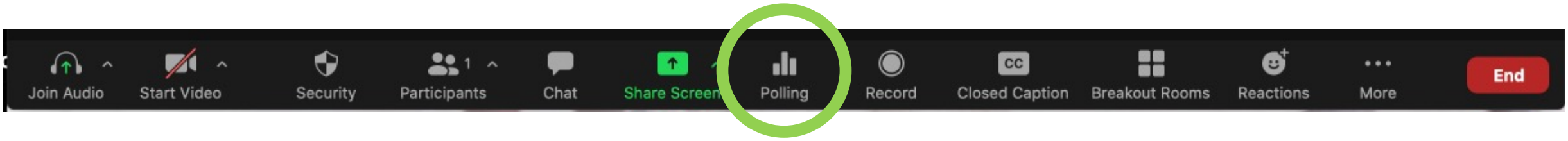
- Enable it: Go to Settings and scroll about half-way down.



- Set it up:
  - Go to *Meetings* and find your meeting; Click the title of the meeting; Scroll down to *Polls*; click *+Add Poll.*
  - OR go to *Meetings*, select the *Personal Room tab,* and click *Polls* (toward the top).



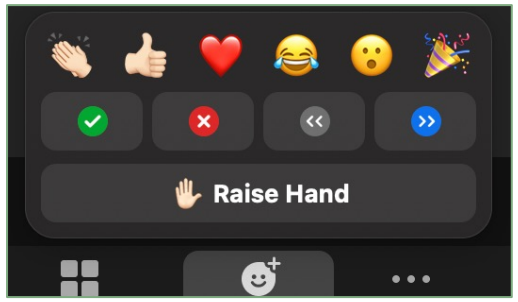
- Run it:
  - During the meeting, click on the Polls button on the Zoom ribbon and launch the poll.
  - Follow in-screen instructions to end the poll and share results with everyone (if you want).

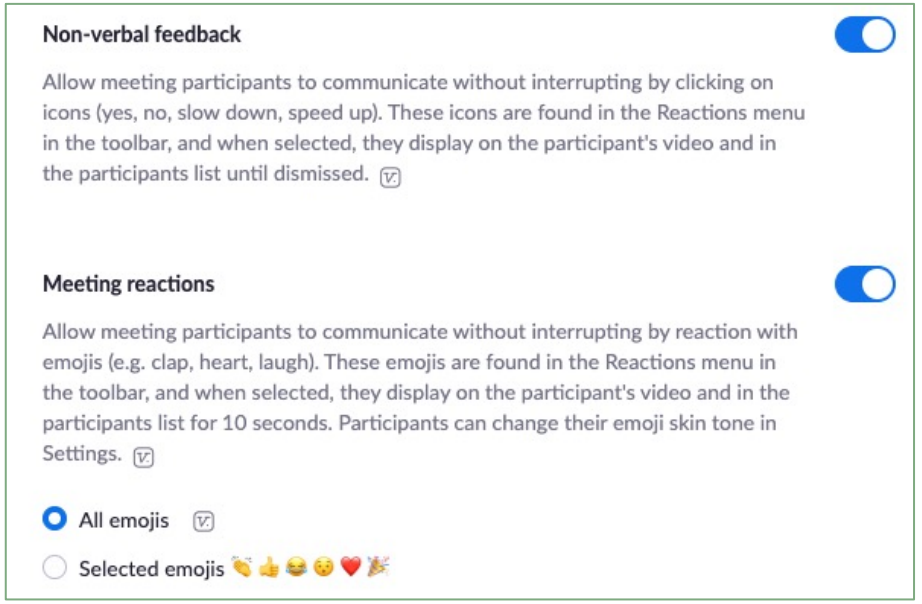


How to use Zoom's Non-Verbal Reactions

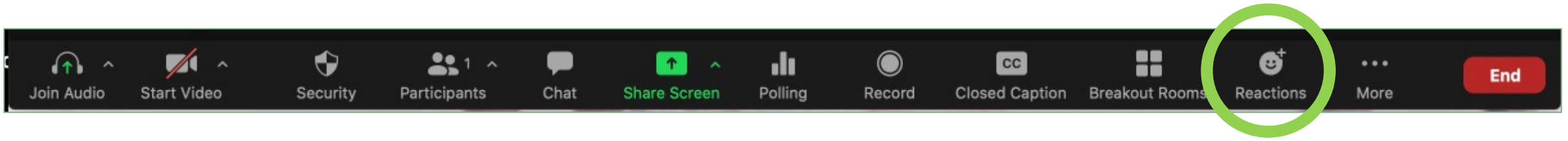
https://und.zoom.us/profile

- Enable it: Go to Settings and scroll about half-way down.
- Review the reactions (so you know what to ask for)





- Use it by clicking on Reactions on the ribbon



Questioning with UND-Supported Tech

- Surveys (not "real time"):
  - Set up short survey or poll before class, then give 5 minutes during or after class to complete it.
  - If you do it during class, can show results at the end.
  - Does NOT display real-time results
  - -Qualtrics: https://und.edu/academics/ttada/academic-technologies/research-surveys.html#d32e89-1
    -Blackboard https://und.edu/academics/ttada/academic-technologies/blackboard/index.html
    -Leo (SMHS Med program) https://med.und.edu/education-resources/leo.html
- TurningPoint (a.k.a. "clickers"): https://und.edu/academics/ttada/academic-technologies/polling.html
  - Students buy an inexpensive license. Can also buy a clicker or use a smart-device. (UND Bookstore)
  - You install TurningPoint software (works with PowerPoint)
  - Polls display in Powerpoint; students answer; display results in real time
  - Can be connected to Blackboard Grade Center to keep attendance and points

Questioning with Free Software

PollEverywhere (free for Edu groups under 40 people) https://www.polleverywhere.com/

Zeetings (great for simple presentations) https://www.zeetings.com/

Slido (integrates well with MS Windows and Teams) - https://www.sli.do/

TopHat (More robust)- https://tophat.com/

Socrative (More robust) - https://www.socrative.com/higher-ed/

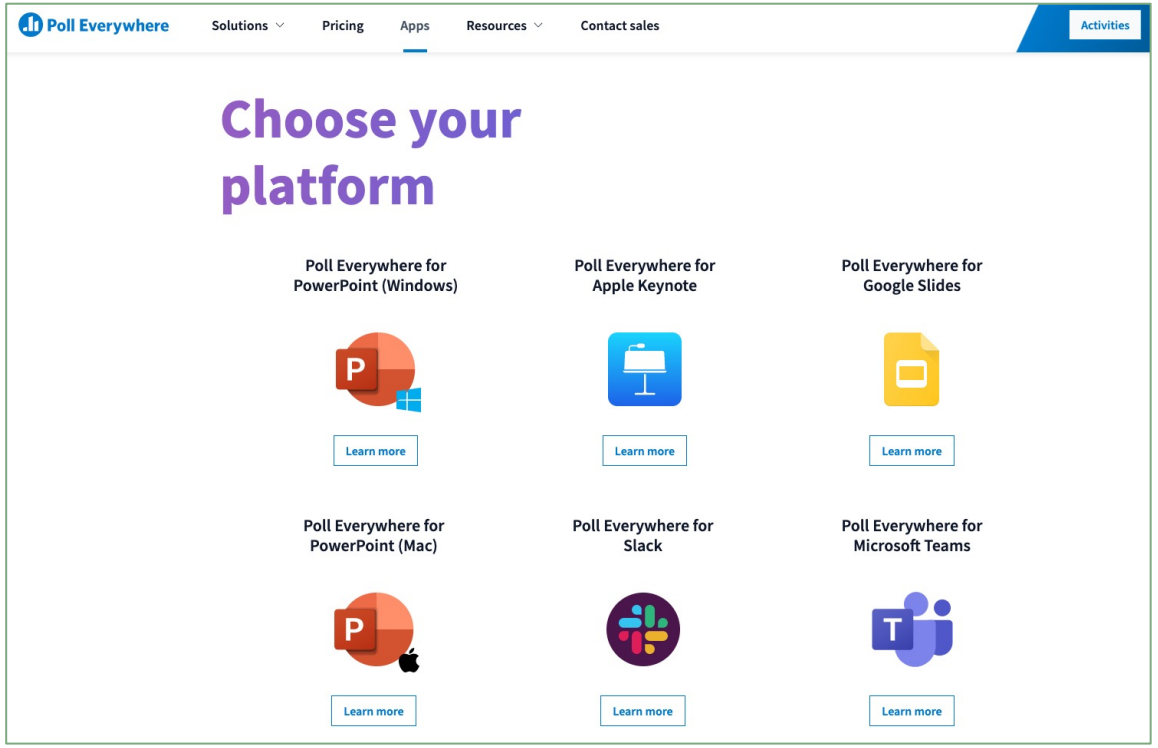
Kahoot and Quizlet (Game oriented) https://kahoot.com/schools-u/

https://quizlet.com/

A Peek at Poll Everywhere

https://www.polleverywhere.com/

- Sign up as a Presenter. Choose *Higher Ed Free* account.
- Create *Activities* on the web and run from the web.
- OR download the application and create Activities there.
- Insert slides into presentation (or activate on web)
- Distribute link to participants before or during the session.



How are PollEverywhere polls deployed?

Using PowerPoint only

Using the web or the app with PPT or other presentation tools

Using the web only

None of the above

Powered by Poll Everywhere

Start the presentation to see live content. For screen share software, share the entire screen. Get help at **pollev.com/app**

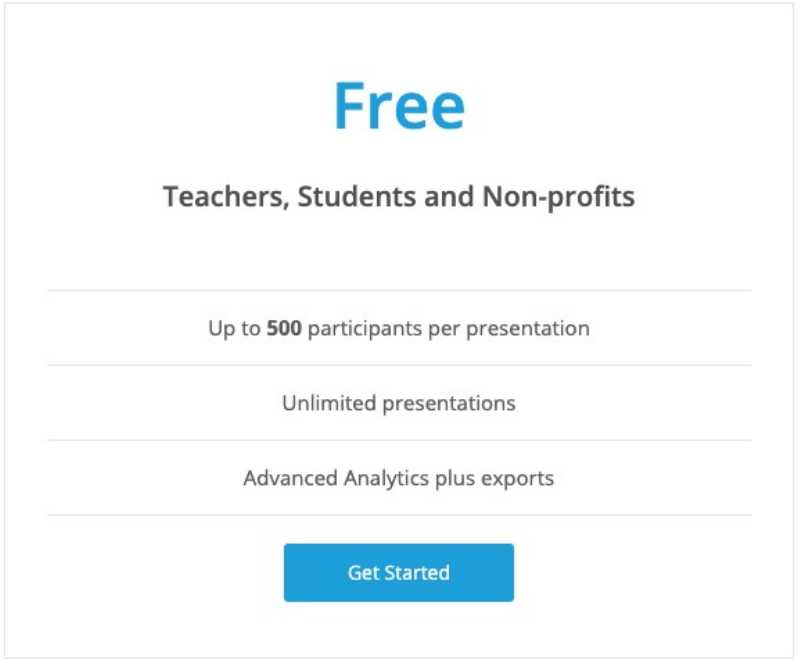
A Peek at Zeetings

zeetings

Business | Education & Non-profits

https://www.zeetings.com/

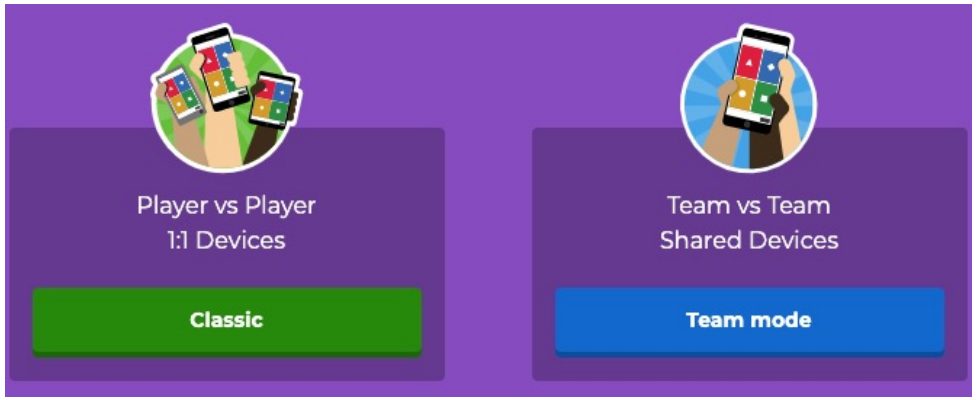
- Click on *Pricing*, then *Education and Non-profits*, then *Get Started*. Create an account.
- New Zeeting: Start Adding Content
- Create a standalone poll and navigate to it when ready
- OR Upload a PPT and add polls to it
  - Sometimes, stalls at the *Firing Up* (conversion) stage.
  - Simpler PPTs work better (no animations, embedded vids, etc).
  - Run your presentation (or poll) from Zeetings, not PPT.



A Peek at Kahoot

www.kahoot.com

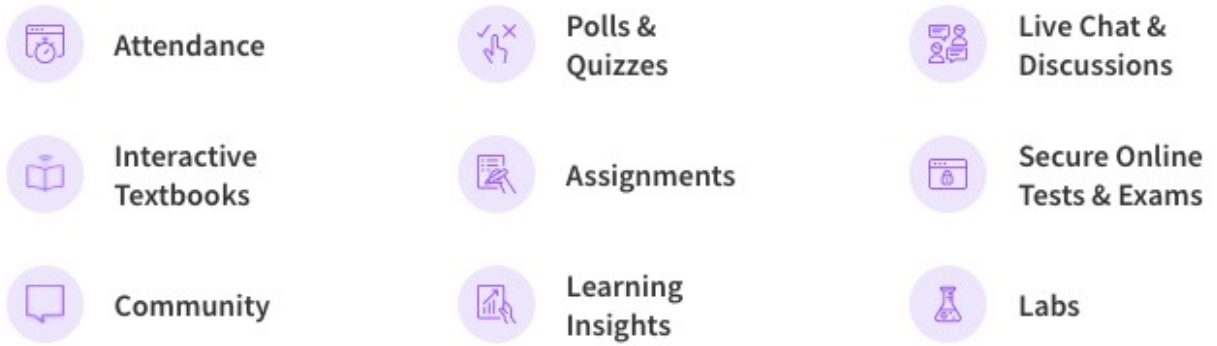
- Click *Sign Up* (upper right), then choose *Teacher*, then *Higher Ed*
- Create account
- Click Create, then *New Kahoot*
- Write questions or search the database for them
- When ready, click *Play* and then *Teach* (for live play) or *Assign* (for asynchronous).
- Review settings and then click *Classic* or *Team Mode*.
- Students follow prompts on screen.



TopHat

Come to next week's session! Dr. Amanda Haage will showcase TopHat.

April 29, 2021 at 12:00 Central



Which is the best? It Depends.

It depends on…

- your class size.
- what kinds of questions you want to ask.
- whether you want to track points or attendance.
- whether your department or individual students can/will pay a fee.
- what tool(s) others in your department use
- whether you are more comfortable with presenting from PowerPoint or from another software.
- on how much time you choose to spend creating and using the questions

TLAS instructional designers can help you find the right tool to fit your needs.

Whatever You Do, Tell Students Why

Students aren't active learning experts.

- They are more successful when they know why you've chosen to do something.
- Otherwise, changes seem random and the instructor is perceived as unprepared.
- Failure to share this with students may lead to failure of your strategy AND poor SELFI scores.
- Especially important if you change something mid-semester!

- "I've recently learned that adding short breaks to our session will help reset our attention spans, which will help you remember more of our topics. Please use break time for checking texts, stretching, or a quick bio-break. When you return, I expect to have your full attention once again."

- "Research shows that students who ask questions remember more of the information they learn. Because of this, I would like you to formulate questions about today's topic as I'm speaking. In 10 minutes, we will pause to discuss your questions and a few of my own."

Summary

Active Learning works

- Gain (and keep) attention
- Involve students in learning
- Improve student outcomes

Easy Active Learning strategies

- 10-2 Strategy (talk 10 min., pause 2 min)
  - Use for brain breaks
  - Use for questioning
- Questions
  - Ask them in lecture
  - Ask and answer them in dedicated time
  - Encourage students to ask and answer them
  - Use technology to ask them

Tech to use for Easy AL

- Zoom (shown today)
- TurningPoint
- Qualtrics
- PollEverywhere (shown today)
- Zeetings (shown today)
- Slido
- TopHat (join us on 4/29!)
- Socrative
- Kahoot (shown today)
- Quizlet

Questions? Connections?

Thank You for Attending TLAS Fac. Dev.!

- **Next Faculty Development is April 29th at noon**: Dr. Amanda Haage shows us Active Learning with TopHat. Details: https://med.und.edu/education-resources/faculty-development.html
  - Today's recording and slides will be available at the link above in a few days too!
- **TLAS Website**: recordings, online resources, and instructional design info! https://med.und.edu/education-resources/
- Follow TLAS on Twitter: **@SMHS_TLAS**