

# Teaching Small Interactive Classes Online Using Zoom

5 June 2020 (Fri) , 10 AM - 12 PM

Centre for Teaching & Learning and Education Technology  
Yale-NUS

We will begin shortly after 10:00am

Join using “Audio Conference by Computer”

Please Mute your microphone

Please Start Video

(click the “Zoom” menu and then “Preferences” to select a Virtual Background if you wish)

Use the Chat to ask questions or share comments/ resources

(type your full question/comment or just write ‘question’ and we will invite you to verbally ask it during Q&A periods)

This session will be recorded

# PLAN FOR TODAY'S SESSION

- 1) **Introduction:** Two Overarching Themes for Teaching Online
- 2) **Discussions:** Choosing Formats and Inculcating Norms for Inclusive Discussion and Exchange
- 3) **Zoom Functions to Promote Active Engagement and Interaction**
  - a. Reaction and Feedback Buttons
  - b. Polling to Promote Engagement and Activate Learning
  - c. Breakout Rooms for Collaboration, Community, and Accountability
  - d. Annotation and Whiteboard to Integrate Visual Representation
- 4) **Synchronous and Asynchronous Online Learning:** When to Use, How to Integrate
- 5) **Summary:** Five Ways to Make Online Learning Engaging, Promote Community, and Foster Accountability Among Students

# PART I: TWO OVERARCHING THEMES

Distance learning offers distinctive opportunities, but can be challenging for students and educators alike. In particular, motivation and engagement can diminish. To help students succeed in distance learning:

**1) Everything Has to be More Explicit**

**2) Proactively Humanize and Build Community within Classes**

Taking these steps will boost student engagement, accountability, and thereby enhance learning and success.

# THEME I: EVERYTHING NEEDS TO BE EXPLICIT

- 1) **Explicitly Articulate Netiquette and Norms of Engagement**
- 2) **Explicitly Communicate the What, Why, & How**
- 3) **Solicit Input Early and Often**
- 4) **Give Feedback Early and Often**

# THEME I: EVERYTHING NEEDS TO BE EXPLICIT, pt I

## Explicitly Articulate Netiquette and Norms of Engagement

- Anticipate what information students need to meet your expectations.
- Invite students to join you in crafting norms and expectations for the class.

### Welcome Email

Hello, and thank you for signing up for "Teaching Interactive Classes Online Using Zoom" on Friday 5 June at 10am. Below you will find information for joining the webinar on Zoom, and some requests for your engagement during the session. If you have any questions prior to the event, please email [teaching@yale-nus.edu.sg](mailto:teaching@yale-nus.edu.sg)

See you tomorrow!

Yale-NUS CTL and EdTech


**Zoom Invitation:**  
Topic: Teaching Interactive Classes Online Using Zoom  
Time: Jun 5, 2020 10:00 AM Singapore  
Link: <https://zoom.us/j/92754495309?pwd=L1ovQ2hXaFdXWVJ4WTkzU1VaMS9KUT09>  
Meeting ID: 927 5449 5309  
Password: Learning

**'Netiquette' Requests:**

- When you enter the session your microphone will be set to Mute. Please keep your microphone muted unless invited to speak. We will use the "Chat" function to invite questions and comments throughout the session.
- When you enter the session please turn on your video, clicking "Start Video." Feel free to use a Virtual Background, which you can enable before or after joining by opening the "Zoom" menu in your toolbar, then "Preferences" to select a Virtual Background.
- Feel free to have a drink or small snack during the webinar but please try to keep non-essential distractions to a minimum. (Of course we understand that cats sometimes jump on tables and kids sometimes jump on laps!)
- This session will be recorded so that we can review and identify areas for future improvement. If you have objections or concerns, please contact [teaching@yale-nus.edu.sg](mailto:teaching@yale-nus.edu.sg).

**Technical Recommendations:**

- Join the session on the device you are most likely to use for teaching.
- If you are unfamiliar with Zoom, you may want to watch this 2 minute video on Joining Zoom Meetings: <https://www.youtube.com/watch?v=s76QHshQnY>
- Lastly, we recommend that when you join you select "Join Audio Conference by Computer" as follows:



### Welcome Slide

**Teaching Small Interactive Classes Online Using Zoom**  
5 June 2020 (Fri) , 10 AM - 12 PM  
Centre for Teaching & Learning and Education Technology  
Yale-NUS

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Please Start Video  
(click the "Zoom" menu and then "Preferences" to select a Virtual Background if you wish)  
Use the Chat to ask questions or share comments/ resources  
(type your full question/comment or just write 'question' and we will invite you to verbally ask it during Q&A periods)

This session will be recorded

Explicit Norm-Setting

# THEME I: EVERYTHING NEEDS TO BE EXPLICIT, pt2

## Explicitly Communicate the What, Why, & How

- WHAT (the activity, process, deliverables)
- WHY (the value/purpose/ payoff of learning activities and assignments)
- HOW (recommendations re: process; transparency in how students will be assessed)

## Solicit Input Early and Often

- Why: To determine whether students understand the what, why, and how of the course. This is a new mode of learning for them and teaching for you. Refinements may be necessary.
- How: Small group conversations, anonymous surveys, quick ungraded content quizzes – any method to determine students comprehension, engagement, and technology access.

## Give Feedback Early and Often

- Let students know that you see their effort, and you see when they are struggling too. Even if you don't have time to read every blog post or journal entry, pick one paragraph to comment on, nourish, and provide ideas for improvement.

# **THEME #2: PROACTIVELY HUMANIZE & BUILD COMMUNITY**

- 1) Humanize Yourself and the Experience – make it fun**
- 2) Signal Approachability**
- 3) Build Community With and Among Students**

# THEME#2: HUMANIZE & BUILD COMMUNITY, pt1

**Humanize Yourself and the Experience** – Find ways to make the experience personal, human, and fun. Here are some ideas:

- Share – e.g. introduce them to your kids or cat or favorite plant sitting on your desk, tell them what you are making for dinner.
- Inject personality, humor, or levity when appropriate. E.g. when assigning team names use your favorite cities or song titles. Insert fun images or quotes in your lecture slides. Encourage students to use different images for their Virtual Backgrounds every week that reflect the topic of that week, and create a prize for most inventive selections.
- Avoid monotony of teaching format and learning activities. Mix up videos and readings, lectures and discussions, visual and verbal representations, group and independent inquiry, synchronous and asynchronous activities.



# THEME#2: HUMANIZE AND BUILD COMMUNITY, pt2

## Signal Approachability

- Host mandatory small group or individual office hours early in the semester to signal your genuine interest in their experience.
- Send short, personalized emails to each student once early in the semester. E.g. “The comment you made today about otters was very helpful in moving the conversation forward. Keep up the good work!” Or “I noticed you were more reserved than usual today. That’s fine – we don’t need to be ‘on’ all the time. But if there is anything going on you want to talk to me about, I’m available during office hours Tuesday and Thursday.” The emails don’t necessitate a student response, they simply signal encouragement and care, opening lines of communication.

# THEME#2: HUMANIZE AND BUILD COMMUNITY, pt3

## Build Community With and Among Students

- Integrate team-based learning or sustained group work, creating smaller groupings that can get to know each other and feel accountable to each other more deeply.
- Invite students to share about themselves. Start with more superficial shares (e.g. what is your favorite object in your home) and as the semester unfolds and trust builds, move on to more intellectually rich and weighty topics (e.g. what is the most unsettling thing you've read or heard lately). Ideally these topics might connect to course material, and deepen it for students.
- Call on students by name, and insist they do the same (e.g. instead of “as he just said...” insist they say “as Jared just mentioned...”).

# PART 2: PROMOTING DISCUSSION IN ZOOM

Choosing Your Formats to Promote Exchange

Cultivating Norms to Promote Effective Discussion

Strategies to Make Online Learning Inclusive

# FORMATS TO PROMOTE DISCUSSION/ EXCHANGE

FORMATS	USES	LIMITATIONS/ CONSIDERATIONS
Speak When You Want	<p>Students can chime in when they want.</p> <p>More informal approach where power lies less with professor.</p>	<p>May inhibit contributions because of its formality and requires interrupting professor unless students are given explicit opportunities for Q&amp;A. Some students do not feel comfortable contributing verbally.</p> <p>May not work with more than 6-7 students. Online it is harder to read non-verbal signals, so harder to know when someone is done speaking or wants to start.</p>
Raise Actual Hands	<p>Students can signal they want to speak to the whole class, but wait for professor to invite them to do so.</p> <p>Creates a sense of familiarity and normalcy since this is how physical classroom discussion often operates.</p>	<p>May inhibit contributions because of its formality and requires interrupting professor unless students are given explicit opportunities for Q&amp;A. Some students do not feel comfortable contributing verbally.</p> <p>Professors won't see hands raised unless a small class and consistently in Gallery Mode.</p>
Raise Digital Hand	<p>May be easier for professor to see than physical hands.</p>	<p>May be challenging to keep track of whose hands are raised in a big class. Consider designating a student as co-moderator to help you identify hands raised/ comments.</p>
Chat Function	<p>Students can signal they want to speak to the whole class, or direct comments to specific students or to the professor only.</p> <p>Students and professors can share links, attach documents, and have side conversations that supplement and possibly deepen class discussion.</p> <p>A way for students to engage even if they are not comfortable speaking up to the whole class.</p> <p>The chat can be saved for professor to review after class.</p>	<p>Can be distracting and challenging to keep track of while also leading the main conversation. Recommended to build in explicit pause moments to check the chat, respond to comments, observe what issues got the most attention, and pivot accordingly.</p> <p><i>Takes greatest advantage of Zoom/ e-learning environment</i></p>

# NORMS TO PROMOTE DISCUSSION/ EXCHANGE

**Do you want all students to be muted by default or not?**

**Who will do the 'unmuting' if the default is that students are 'muted'?**

**How much power do you want relative to students in managing the conversation?**

Even those who typically operate a more loose/ egalitarian classroom might want to assume more power and leadership in an online setting than they would in a face-to-face classroom.

**How will you invite contributions from all?**

Online, it may be harder to subtly nudge a student to stop talking, or to coax a quieter student to join the conversation. These signals may have to be more explicit. How can this be done without undermining classroom rapport? You may want to alert students at the beginning of the semester that you will be taking an active role in asking some students to wrap up their comments and calling on others to speak up.

**Will you insist students use the video function/ show their faces?**

This can promote a sense of community and accountability, but it can also be difficult for students with weak connectivity or who do not want to broadcast their home life. One way to manage these trade-offs is to do an anonymous survey before class starts to learn whether video sharing would create problems for anyone. Normalizing virtual backgrounds for all students also provides 'cover' to those who may want more privacy.

# HOW TO MAKE ONLINE LEARNING INCLUSIVE

- Present Content/ Information Using Multiple Formats/ Representations
- Let Students Demonstrate Their Knowledge To You Across Multiple Formats
- Ask – invite feedback on what is working and what is creating obstacles to learning.

# PART 3: ZOOM FUNCTIONS TO PROMOTE ACTIVE ENGAGEMENT AND INTERACTION

Reaction and Feedback Buttons

Polling to Promote Engagement and Activate Learning

Breakout Rooms for Collaboration, Community, and Accountability

Annotation and Whiteboard to Integrate Visual Representation

# REACTIONS AND FEEDBACK BUTTONS

The image shows a Zoom meeting window. The main area displays a video of a woman, Catherine Sanger, presenting. She is standing in front of a whiteboard with the text "mathy Resistance" written on it. The video is centered on a dark background. In the top right corner of the meeting window, the text "Zoom Meeting" is visible, along with a timer showing "00:48" and a "Recording..." indicator. On the right side of the window, there is a sidebar with the "Participants (1)" section, showing Catherine Sanger as the host. Below this, there are reaction buttons: "yes" (green checkmark), "no" (red X), "go slower" (double left arrow), "go faster" (double right arrow), "more" (three dots), and "clear all" (grey diamond). Below the reaction buttons are "Invite", "Mute All", and "More" buttons. The "Chat" section is empty, with a "Type message here..." input field and a "To: Everyone" label. At the bottom of the window, there is a toolbar with various icons: "Unmute", "Start Video", "Security", "Participants", "Chat", "Share Screen", "Polling", "Pause/Stop Recording", "Closed Caption", "Breakout Rooms", "Reactions", and "End". Two orange arrows are overlaid on the image: one points from the word "FEEDBACK" (written in orange, slanted text) to the reaction buttons, and another points from the word "REACTIONS" (written in orange, slanted text) to the "Reactions" button in the bottom toolbar.



# Demonstration

# HOW TO USE REACTIONS, FEEDBACK BUTTONS

## Possible Uses:

- To “read the room” – are they paying attention, ready to move on, need a break?
- To quickly gauge comprehension with objective (yes/no) questions.

## Limitations:

- Sometimes more personal to ask them to nod if you don't have too many students on your screen.
- NOT anonymous. For anonymous feedback use Polls.
- Only offer binary reactions (e.g. yes/ no, speed up/ slow down) so not useful for gauging comprehension of more subjective questions. Not very useful for promoting critical thinking/ reflection.

# POLLING: WHEN/ HOW TO USE

## Possible Uses:

- To gauge interest and comprehension of what is currently being taught.
- To wake students up/ keep them alert -- create a sense of accountability for paying attention and doing homework.
- To assess retention of information from earlier classes/ lectures/ readings.
- To stimulate active engagement with course material, which enhances understanding.
- To give students practice answering ungraded questions that may be on a graded mid-term or final.

## Variations:

- Can be set up to be *Anonymous* or *Identifiable*.
- You can share the results with the class, or keep them to yourself.
- Can be set up in advance (before class) or mid-class as needed.
- Can use at the start of class, mid-class, or at the end.

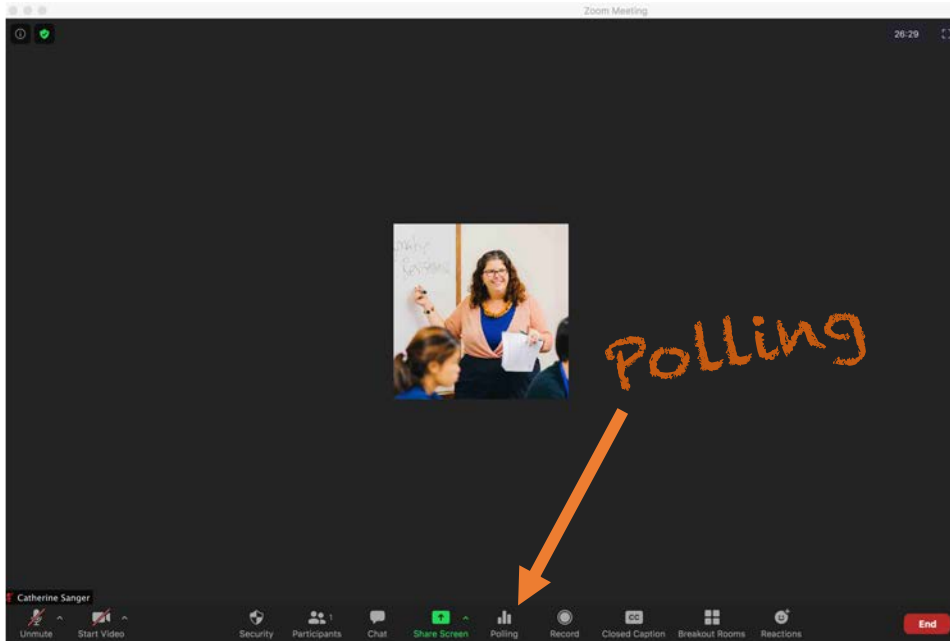
## Limitations:

- Primarily designed for objective (yes no, this or that, multiple choice) style questions.
- Can malfunction – so not recommended for graded activities or if you want to have a record of the results. For graded activities or higher-stakes assessment using Canvas is better.

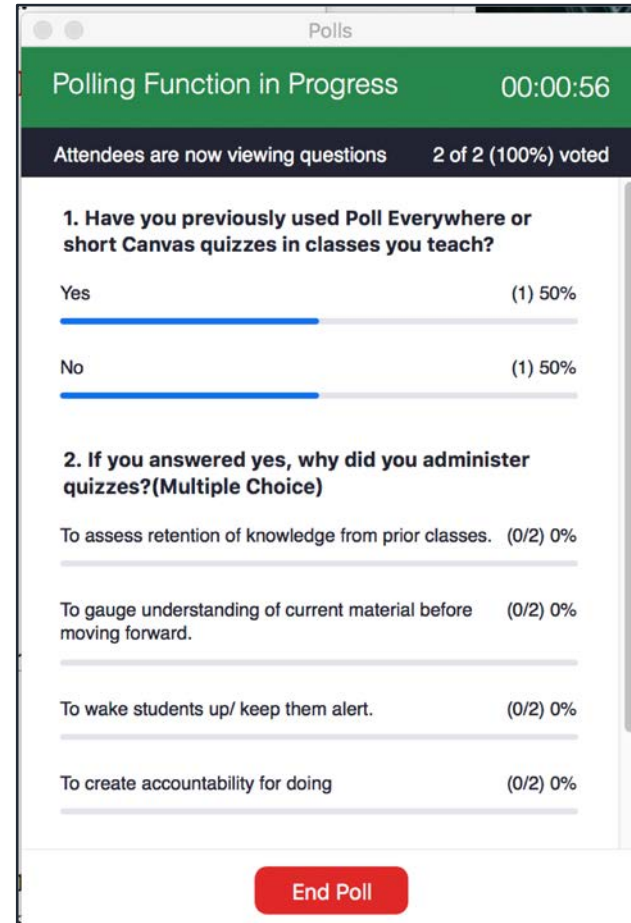
# Demonstration

# POLLING FUNCTION

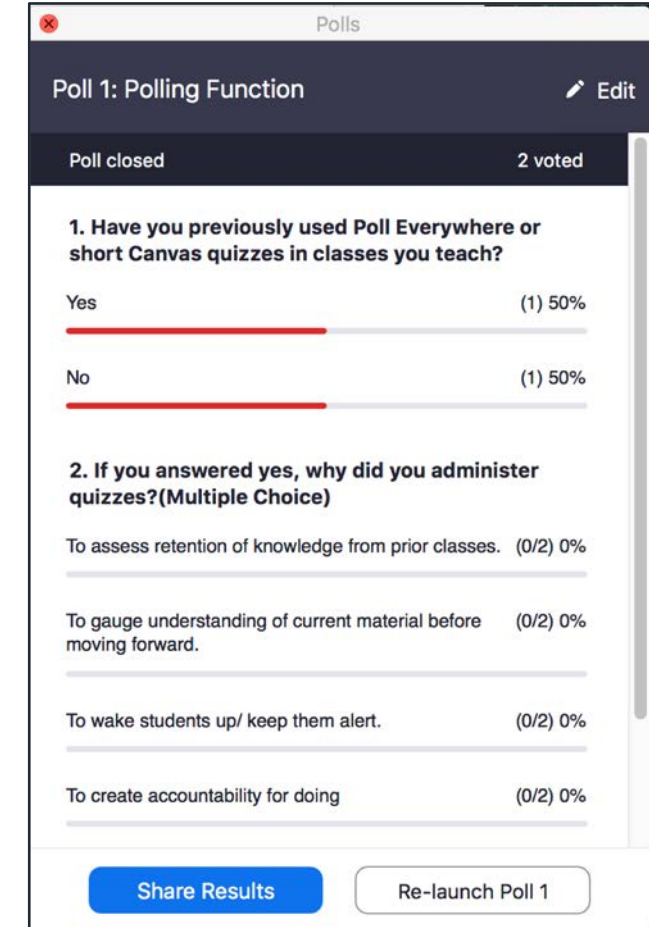
## Host View: Starting a Poll



## Host View: During Poll



## Host View: Poll Complete



# BREAKOUT ROOMS: WHEN/ HOW TO USE

## Functions:

- Use the way you would small group/ partner activities in a physical classroom (e.g. think-pair-share, small conversation).
- You can have students use the Whiteboard function to create a visual representation of their conversation to share with the professor or larger class.
- Can assign students to groups in advance or use automatic/ random assignment, can make groups big or small.
- The professor can move around the 'rooms' to assess progress and answer questions.

## Benefits:

- Can break up the monotony of looking primarily at the professor's face or slides, and give students a chance to think through a concept or problem before having to share their ideas with the whole class.
- Can create accountability and camaraderie for students who might become detached in a larger class.

## Limitations/ Considerations:

- Instructions need to be much clearer because you won't be within ear-shot of the students once you've sorted them. Assigning a very clear deliverable/ project will help them keep on track even though you won't be 'in the room' with them.
- Sometimes in the transition to breakout rooms people lose contact with Zoom – they freeze or get dropped from the meeting. If someone has these tech problems and has to exit/rejoin Zoom, they can't be added back into a breakout room.
- There are a lot of options for student-to-student discussion and collaboration that exists beyond the confines of Zoom. Asynchronous activities (e.g. by next week work together to find and critique a short video about this topic) might be more productive. For activities that require more time and deeper reflection (e.g. peer review) it may be preferable to let students meet when and on the platform they wish. WhatsApp, Google Doc, email, Facebook messenger etc. might be better for students with different technological access and in different time zones.

# Demonstration

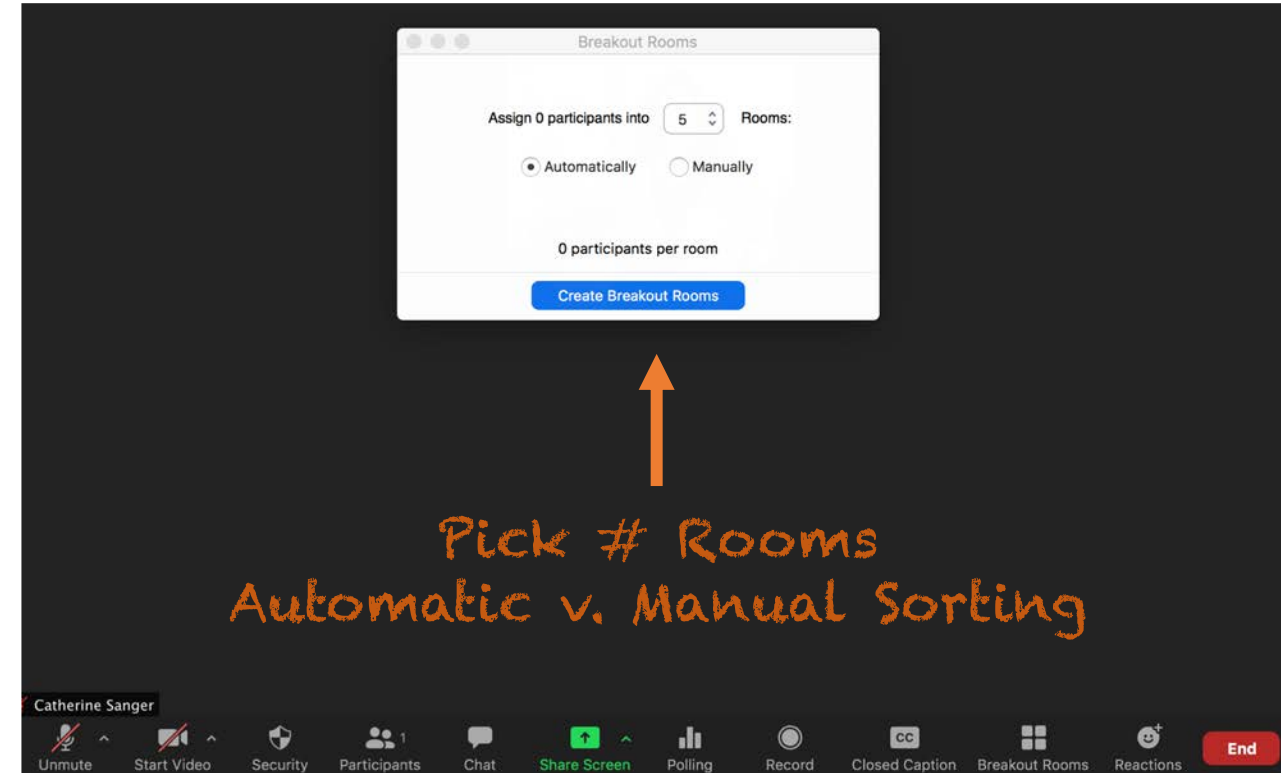
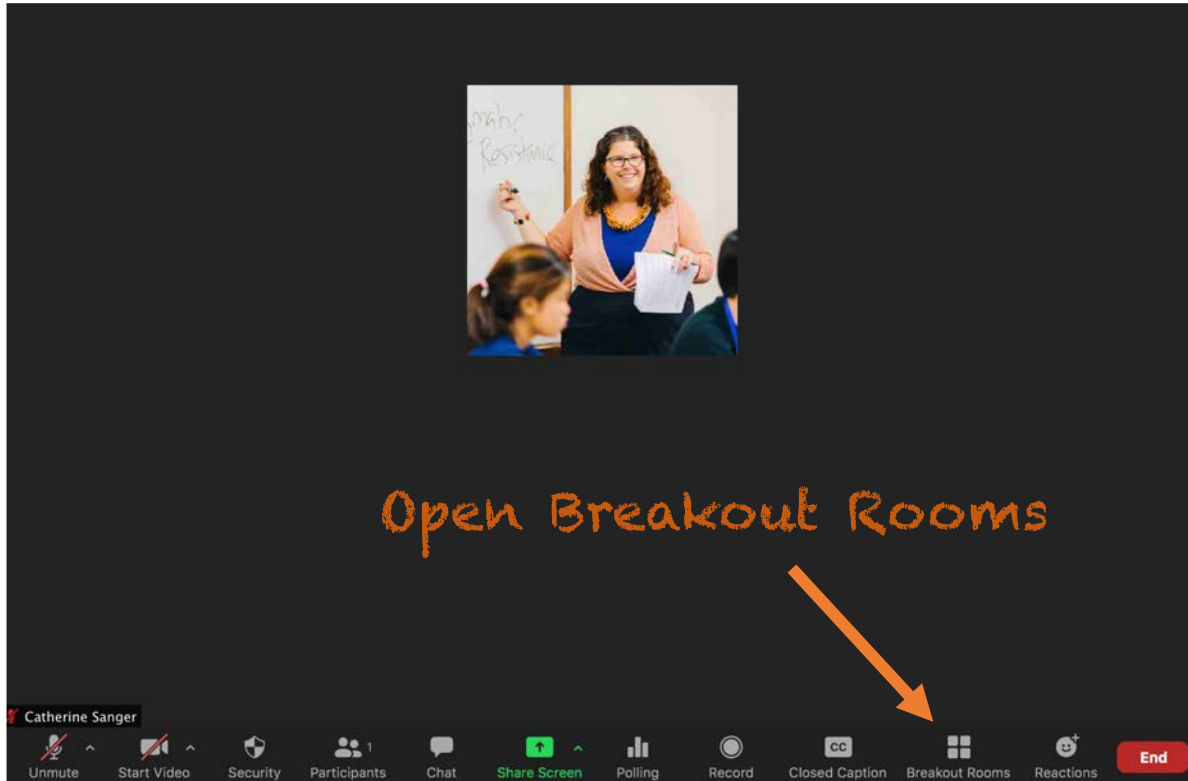
# PROMPTS FOR BREAKOUT ROOM EXERCISE

- 1) **Introduce yourselves.**
- 2) **Discuss** how you could use breakout rooms to enhance learning in a class/workshop you are leading next semester.
- 3) **Report:** Pick one group member who will be responsible for reporting your thoughts back to the larger group. When we come together I'll pick one group at random to present so please be ready to share.

*You Have 5 Minutes*



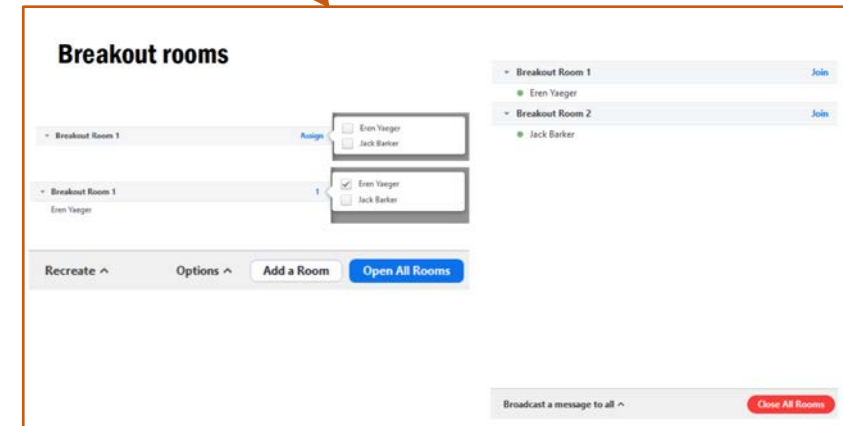
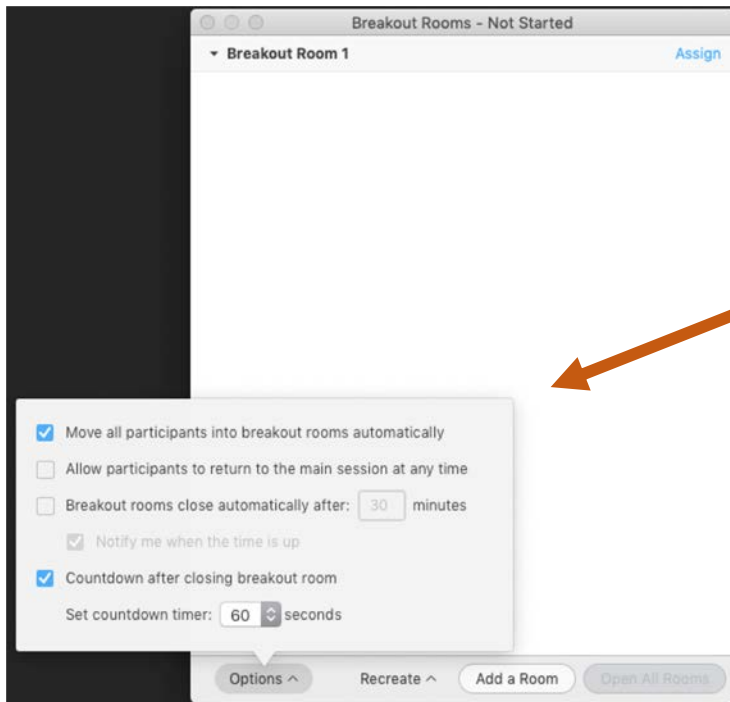
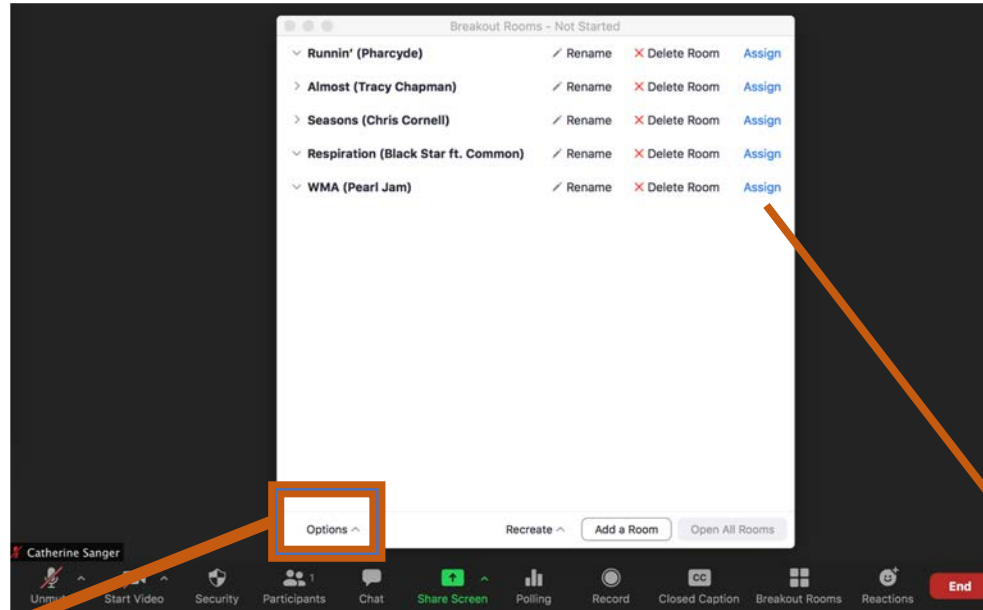
# BREAKOUT ROOMS - HOST VIEW



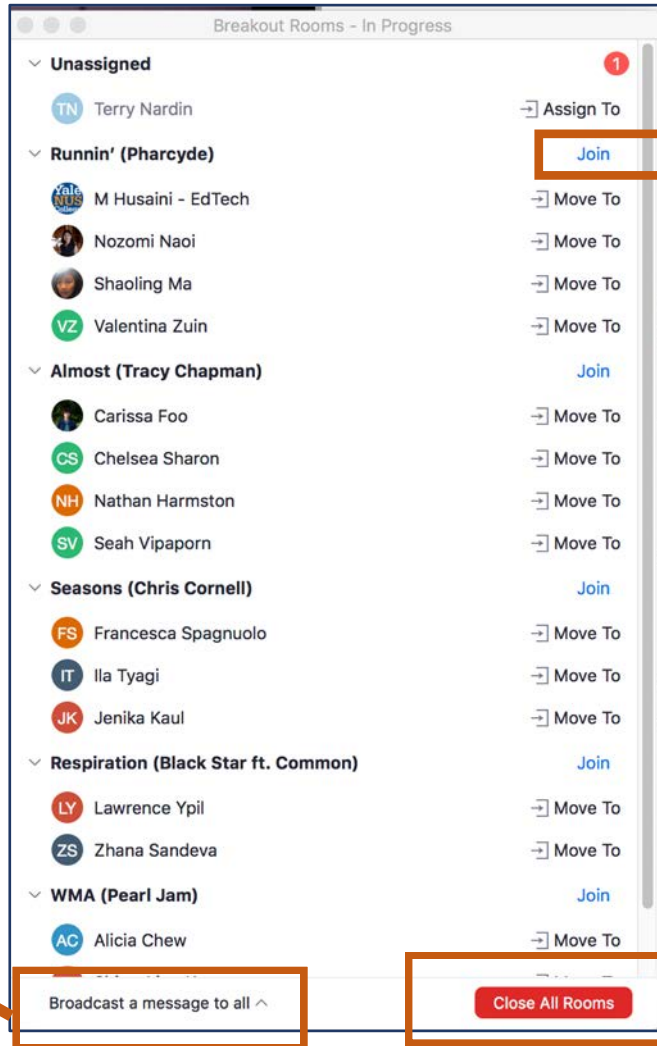
# BREAKOUT ROOMS - HOST VIEW

Name Rooms, Assign Participants

Options for Assignment and Duration



# BREAKOUT ROOMS - HOST VIEW

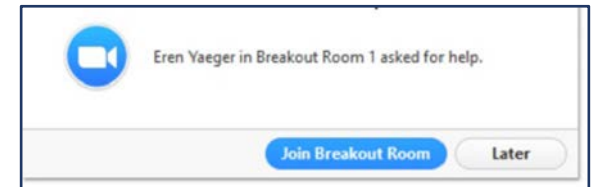


Join a breakout room, check student progress, answer questions.

Close the breakout rooms and everyone will return to main session. You can select a 30, 60, 90, 120 second countdown.

Broadcast a message to all groups (e.g. "we'll be ending in 5 minutes")

If students click the "Ask for Help" button in the breakout a popup will get your attention.



# WHEN/ HOW TO USE ANNOTATION AND WHITEBOARD

## Possible Uses:

- Can use annotation to mark up/ interact visually with a PowerPoint slide, Word doc, PDF, picture, web site – anything you can bring up on your computer screen. Can also use annotation on the Whiteboard function.
- Professor can annotate and enable students to annotate as well. A bit like asking students to ‘come to the board.’”
- Can set to anonymous or identifiable, students can use text boxes, drawing, arrows and lines, etc.
- Good for getting students to generate ideas or solutions (e.g. “Everybody circle the stanza of this poem you find most puzzling” or “Jin can you please circle the equilibrium point on this graph?”)
- You can “Clear” and “Save” if you want to use those images later.

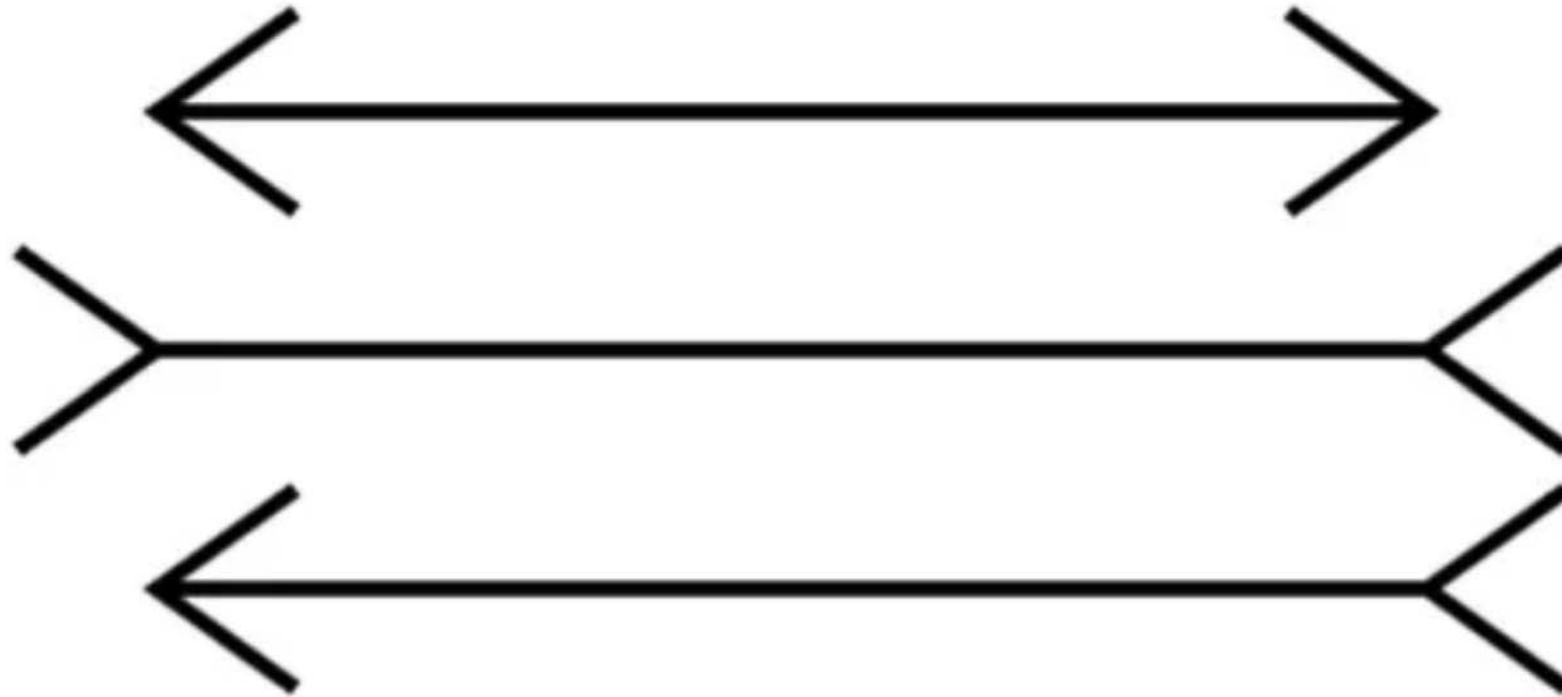
## Limitations:

- Drawing and more sophisticated graphing/ writing works much better with a tablet and stylus than a mouse/ traditional computer. If faculty intend to use this function a lot, may want to contact ERT for technological support. Since faculty cannot assume students have tablet/ stylus technology cannot expect them to be able to use this function beyond a more basic level.

# Demonstration

# ANNOTATION DEMONSTRATION

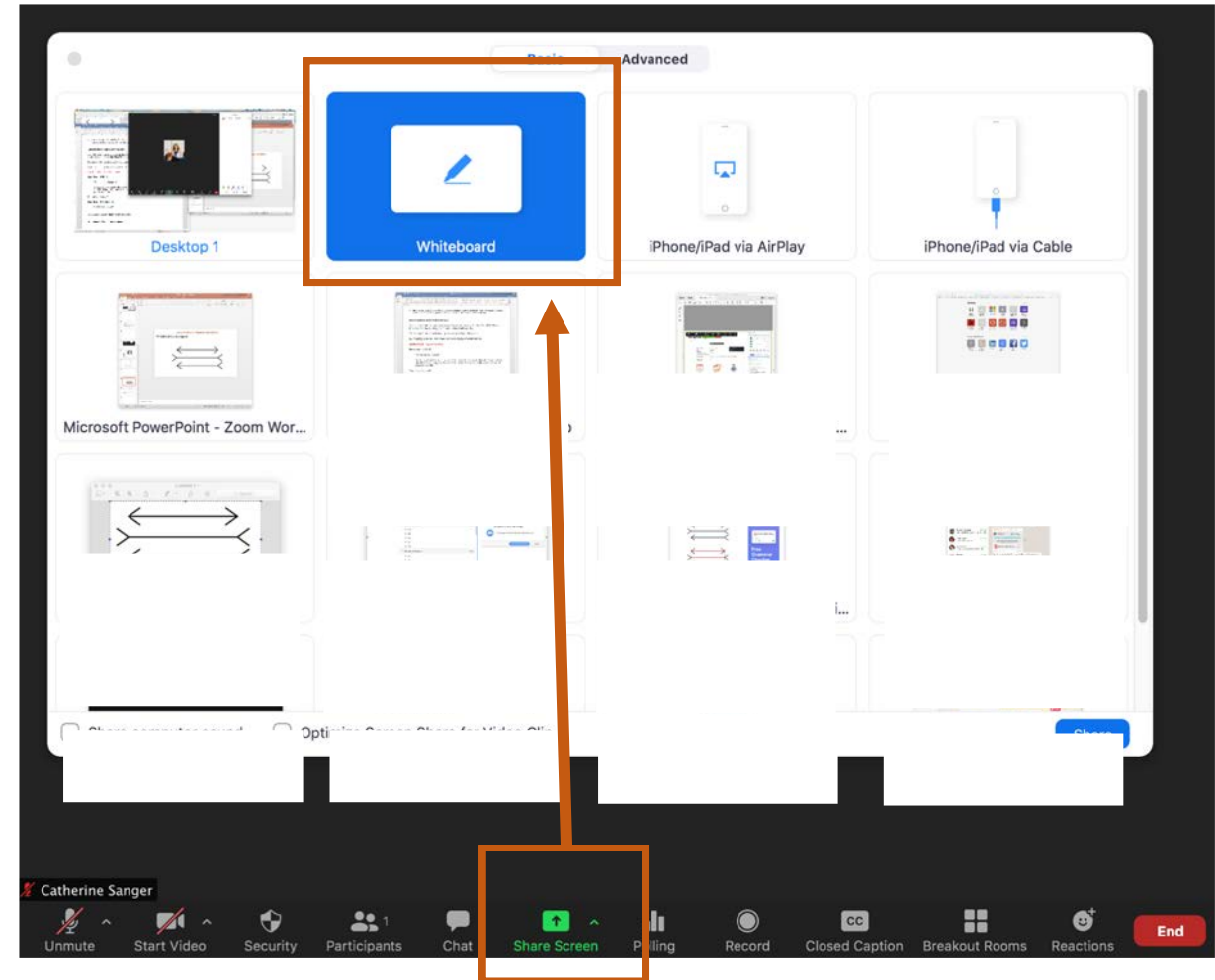
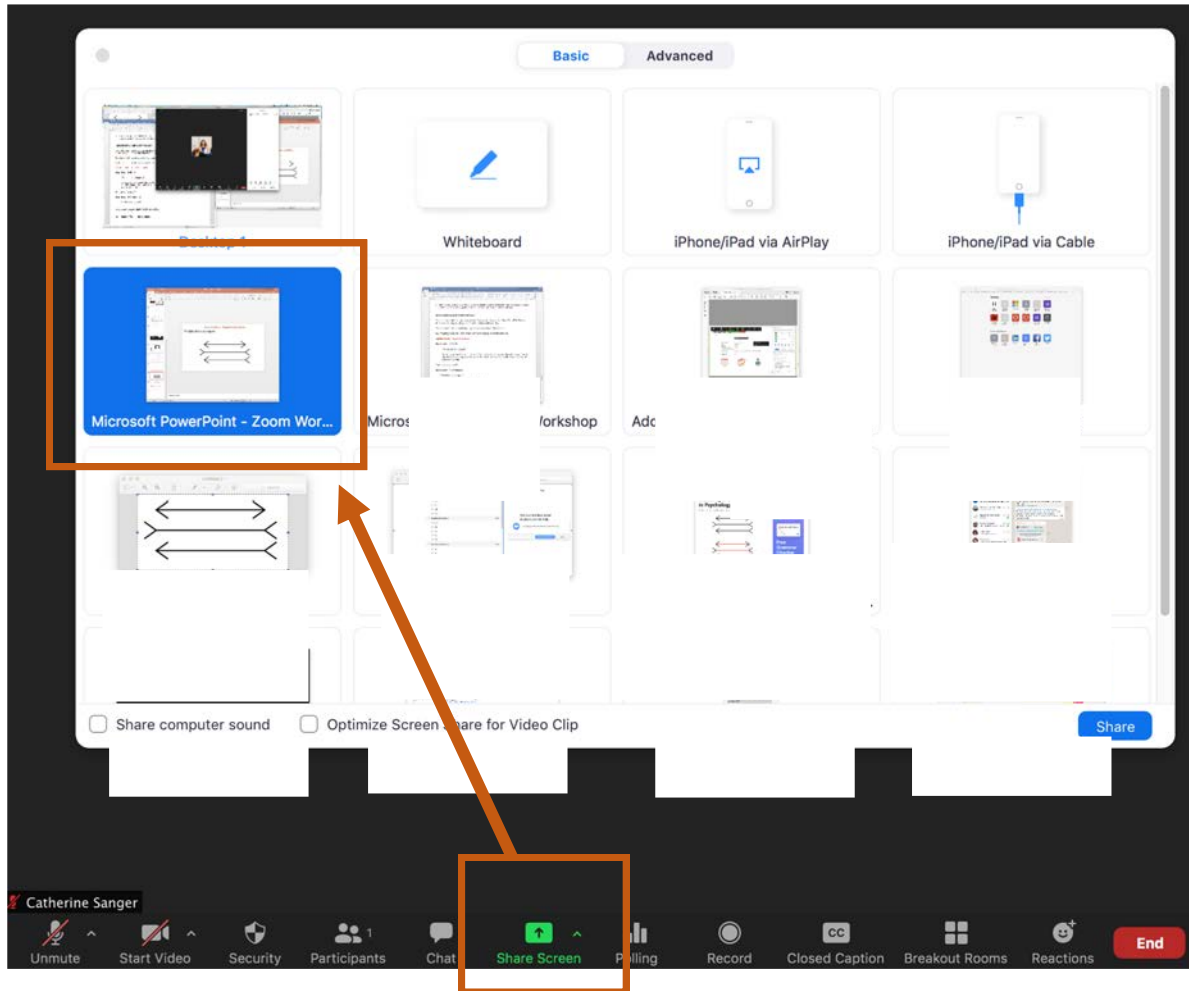
Which Line is Longest?



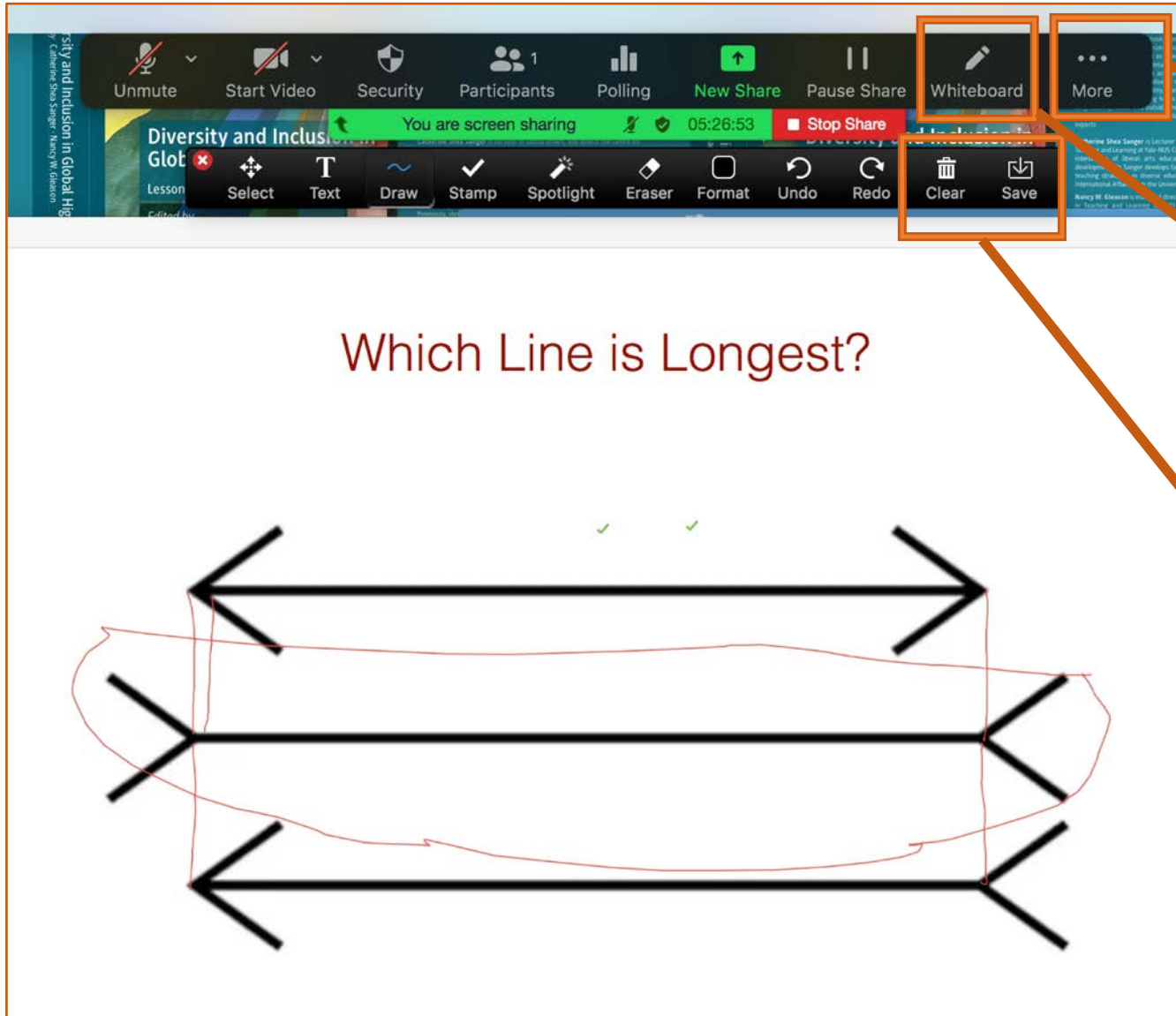
# ANNOTATION - HOST VIEW

Screen Share → PowerPoint

Screen Share → Whiteboard



# ANNOTATION - HOST VIEW



The screenshot shows the Zoom whiteboard interface. At the top, there is a toolbar with various icons for Unmute, Start Video, Security, Participants, Polling, New Share, and Pause Share. Below this is a secondary toolbar with icons for Select, Text, Draw, Stamp, Spotlight, Eraser, Format, Undo, Redo, Clear, and Save. The main whiteboard area contains the text "Which Line is Longest?" and three horizontal lines of varying lengths. A red hand-drawn oval encircles the lines. Two green checkmarks are placed above the top line. The "Whiteboard" and "More" buttons in the top toolbar are highlighted with orange boxes. Arrows point from these boxes to explanatory text on the right.

Click "More" to control who can annotate, whether anonymous or identifiable.

Click "Whiteboard" to Open Annotation Functions

You can "Clear" and "Save" when annotating as well.



# PART 4: SYNCHRONOUS & ASYNCHRONOUS LEARNING

Illustrations and Examples

When and How to Use

How to Integrate in Course Design

	<b>SYNCHRONOUS</b>	<b>ASYNCHRONOUS</b>
<b>EXAMPLES</b>	<ul style="list-style-type: none"> <li>• Live Lectures</li> <li>• Discussions</li> <li>• Collective problem solving</li> <li>• Exams taken together</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-recorded lectures</li> <li>• Sequential group work/ projects</li> <li>• Independent learning (reading, watching videos, interviewing subjects, problem sets)</li> <li>• Writing exercises, blogging, journaling</li> <li>• Discussion boards</li> <li>• Exams/ assessments taken independently</li> </ul>

	<b>SYNCHRONOUS</b>	<b>ASYNCHRONOUS</b>
<b>OPPORTUNITIES</b>	<ul style="list-style-type: none"> <li>• Most similar to traditional course structure.</li> <li>• Creates sense of community and accountability among students.</li> <li>• Efficient – allows faculty to check in with the whole class or large subsets in one session.</li> <li>• Participation can be incentivized and monitored.</li> <li>• Creates opportunities for spontaneous co-construction of knowledge among students.</li> <li>• Can record sessions for those who cannot attend/ to review.</li> </ul>	<ul style="list-style-type: none"> <li>• Students can work at times that make sense for them given their time-zone, when they have privacy and quiet, etc.</li> <li>• Students have more time to reflect on tasks and concepts. May promote critical reflection.</li> <li>• More equitable – doesn't depend as heavily on students having sophisticated technology at home.</li> <li>• Necessitates the development of time management and independent work ethic.</li> </ul>

	<b>SYNCHRONOUS</b>	<b>ASYNCHRONOUS</b>
<b>LIMITATIONS</b>	<ul style="list-style-type: none"> <li>• Engagement can wither if formats are not engaging.</li> <li>• Creates imbalance – difficult for students who do not have access to good wifi/ technology or those who are in different time zones.</li> <li>• Technological glitches and malfunctions can be very disruptive.</li> </ul>	<ul style="list-style-type: none"> <li>• To maintain accountability requires frequent feedback from instructor, and extremely explicit instructions.</li> <li>• Can be isolating, students don't get full advantage of the community of students.</li> <li>• Can take longer for faculty to realize when some students are not engaged/ have fallen-off.</li> </ul>

# ZOOM IN SYNCHRONOUS-ASYNCHRONOUS SPECTRUM

Zoom is best for synchronous teaching and learning, but we should not feel confined to Zoom-based or synchronous online teaching methods. Zoom sessions can be a component of a multifaceted approach.

There are many venues and structures to promote learning: Canvas, blogs, email, shared documents, independent and group work done at a time and on a forum of the students' choosing.

But Zoom is good for bringing the class together, humanizing yourself and the class, and building community among the students. These are all very important elements in impactful online courses.

# SUMMARY: 5 WAYS TO ENGAGE, PROMOTE COMMUNITY, and FOSTER ACCOUNTABILITY

1. **Humanize the Experience** – make it personal, human, and fun.
2. **Show You Care and See Their Work** – acknowledge effort, encourage progress.
3. **Explicitly Convey Expectations** – Online everything has to be explicit.
4. **Avoid Monotony of Format and Learning Activities** – mix visual and verbal content, independent and group work, synchronous and asynchronous.
3. **Solicit and Give Feedback Early and Often** – keep students engaged and motivated.

# ADDITIONAL RESOURCES

CTL website: <https://teaching.yale-nus.edu.sg/>

EdTech website: <https://edtech.yale-nus.edu.sg/>

Zoom Video Tutorials: <https://support.zoom.us/hc/en-us/articles/206618765-Zoom-Video-Tutorials>

Zoom Wiki: <https://wiki.nus.edu.sg/display/cit/Zoom>

Quick Guide for Online Teaching from NUS CDTL: <https://wiki.nus.edu.sg/display/NQGTOT>

NUS CDTL Teaching Blogs: <https://blog.nus.edu.sg/teachingconnections/tag/remote-learning/>

Teaching During Covid-19, Yale CTL: <https://poorvucenter.yale.edu/news/chalkboards-zoom-rooms-teaching-during-covid-19>

# Thank You!

If you want to talk more or make suggestions about anything Teaching, Learning, or EdTech related please contact us:

Pedagogy → Kate at [catherine.sanger@yale-nus.edu.sg](mailto:catherine.sanger@yale-nus.edu.sg)

EdTech → Husaini at [edtech@yale-nus.edu.sg](mailto:edtech@yale-nus.edu.sg)

Other Inquiries → CTL at [teaching@yale-nus.edu.sg](mailto:teaching@yale-nus.edu.sg)