Zoom Troubleshooting Handbook

**To support presenters and attendees at the ONR
Cognitive Science of Learning Program Review (v2)**

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Abstract: This document provides an overview of Zoom for those not familiar with Zoom. It includes installation directions and hints on setup and its use as a presenter and attendee. Ideally, read this first—If stuck on short notice, call for help.

Feel free to contact Martin Yeh (martinyeh@psu.edu, 610-892-1351) or Frank Ritter (frank.ritter@psu.edu, 814-865-4453) during the meeting with any questions regarding Zoom.

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Prerequisites

The Zoom web client allows joining a Zoom meeting or webinar without downloading any plugins or software. However, the web client has limited features and functions best on Google Chrome, Mozilla Firefox, and Chromium Edge. See a detailed list of features available on the web client. Participants joining through the web client will need to be signed in to a Zoom account.

Through your settings, you can control if the Join From Browser link appears automatically or if it only appears once the participants attempt to download the Zoom client.

Prerequisites
- Internet Explorer 10 or higher
- Chromium Edge 80 or higher
- Google Chrome 30 or higher
- Safari 10.0.602.1.50 or higher
- Firefox 76 or higher

Note: Mobile web browsers are not supported, so one should call in instead.

Joining a meeting

1. Click the link to join the meeting.
2. An option **Join from your Browser** may appear automatically. If it does not, select **download & run Zoom**.
3. The option **Join from your Browser** will appear.
4. If prompted, sign in to your Zoom account. If you do not have a Zoom account, click **Sign Up Free** and create a new account.
5. You will be prompted to enter your name and the meeting password if it was not included in the join link.
6. Click **Join** to be taken into the meeting.

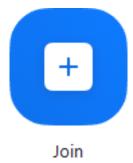## Joining via Zoom Client (Desktop Application)

Downloading the Zoom Client

You can download the Zoom Desktop Client for Mac, Windows, ChromeOS and Linux, as well as the Zoom Mobile App for iOS and Android from Zoom's Downloads page.

Joining a Meeting

There are many ways to join a meeting, but the easiest way is to click the join link that the meeting host provided. You can also click **Join** in your Zoom client and enter the meeting ID.

Join

Calling into a Zoom Meeting

Zoom's functionality allows participants to join a meeting via telephone audio.
To join a Zoom meeting via audio conference (telephone) the meeting will need to be started and the meeting ID will be provided within the Zoom invitation. If you choose to call into the meeting, you will not be able to see the presenters, share your screen, or see the presentation slides, but will avoid any internet problems.

Joining the Meeting

1. For audio conferencing, the participant will need to call any number that is within the Zoom invitation
2. Follow ALL verbal instructions
3. Enter the meeting ID you wish to join followed by the # key
4. You will be asked to enter your participant ID. If you do not know your participant ID simply press the # key
5. You will now have joined the Zoom meeting

Phone Controls for Participants

The following commands can be entered via DTMF tones using your phone's dial pad while in a Zoom meeting:

- ***6** - Toggle mute/unmute
- ***9** - Raise hand

Switching to/from Computer Audio or Mobile Device

If you join by computer or mobile device later, you can enter the Participant ID to bind your phone and device session together and show your video when you speak on the phone. To enter your participant ID once you are in the meeting, enter **#Participant ID#** on your phone.

Sharing Audio and Video

Audio

Joining Audio

Once you have joined the meeting, you can join the audio by computer or dial in by telephone.

1. Click Join Audio.
2. Click Phone Call, Computer Audio, or Call Me tab to choose your join method.

- Phone Call: Follow the instructions on the screen for dialing in by phone.
- Computer Audio: Click Join Audio By Computer. After joining computer audio, you can Mute/Unmute at the lower left corner or click on the ^ to select a different microphone and/or speaker.
- Call Me: Choose the country of the phone you are calling from in the drop down. Enter the phone number. Check Remember the number on this computer if you would like this number stored for future meetings. Click Call Me.

By default, all users will have their audio muted when entering the meeting.

Audio Controls

The attendee controls appear at the bottom of your screen if you're not currently screen sharing.

Mute / Unmute**:**

Mute and unmute your microphone.

Changing Microphone or Speaker

Audio Controls (click the ^ arrow next to **Mute** / **Unmute**): Allows you to change the microphone and speaker that Zoom is currently using on your computer, leave computer audio, and access the full audio settings.

Video

Start Video/Stop Video

The attendee controls appear at the bottom of your screen if you're not currently screen sharing.

Start Video / **Stop Video**: Turns your camera on or off.

Video Controls (click the ^ arrow next to **Start Video** / **Stop Video**): Change cameras if you have multiple cameras, select a virtual background (if enabled), or access your full video settings.

Note: You can change your background by adding a background image through the Start Video arrow. You can also add video, such as the ICCM timers (acs.ist.psu.edu/timers).

Changing Video Layout

When joined into a Zoom meeting from the web client, you can view one participant's video in speaker view or if the host spotlights a video. If multiple participants are sharing their video, you will only be able to see one at a time.

Prerequisites
Requirements for displaying up to 49 thumbnails per page in Gallery View:
- Zoom desktop client for Windows or macOS, version 5.2.0 or higher
- Display up to 49 participants per screen in Gallery View option enabled in the desktop client video settings

Note: If your computer does not meet the CPU requirements, this option is unavailable. Requirements can be found here
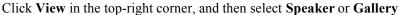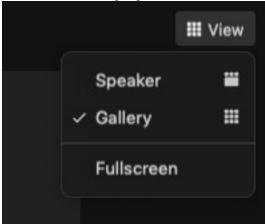
Active Speaker View

Active Speaker View will switch the large video window between who is speaking with 3 or more participants in the meeting. If it is only you and one other participant, your video will be smaller at the top and their video will appear below.

Gallery View

Gallery View lets you see thumbnail displays of participants, in a grid pattern, which expands and contracts as participants join and leave the meeting. Depending on your CPU, you can display up to 49 participants in a single screen of the gallery view. If more than 49 attendees are in the meeting, 49 thumbnails are displayed on each page. View up to 1,000 thumbnails by clicking the right or left arrows in gallery view to display the next page of 49 participants.

Switching Between Gallery View and Active Speaker View

Click **View** in the top-right corner, and then select **Speaker** or **Gallery**

Note: If you're displaying 49 participants per screen, you may need to change to full screen or adjust the size of your window to accommodate all 49 thumbnails.

Floating Thumbnail Window

The floating thumbnail window allows you to minimize the main Zoom window, but keep the video on top of other applications you have open. You can move the window around your screen as needed, or hide the video entirely.

To switch to floating thumbnail view:

1. Click on the minimize icon, located at the top-right corner for Windows or top-left corner for macOS.
2. Once in mini-window view, you can collapse the video by clicking on the arrow on the left side. Click the arrow again to expand the video thumbnail.

3. To close the floating thumbnail window and return to the full Zoom window click the arrow on the right side.

4. To find the video, select Zoom.

Layout when Screen Sharing

When viewing shared content, you will see a layout similar to Active Speaker, where the shared content is below and other video tiles are along the top. If in full screen, the shared content will fill the screen and video tiles will become smaller, movable thumbnails.

You can also view the shared screen in Side-by-side Mode.

Functionalities of Zoom

Chat

Access the chat window to chat with the participants.
The in-meeting chat allows you to send chat messages to other users within a meeting. You can send a private message to an individual user, or you can send a message to an entire group. As the host, you can choose who the participants can chat with or to disable chat entirely.
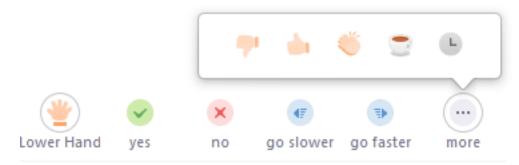
In-meeting chat can be saved manually or automatically. Auto-save chat will automatically save your in-meeting chat locally on your computer. You can also manually save your chat when you start a local cloud recording.

Note: Private messages between participants are not viewable by the host.

Participants

Non-verbal Feedback

Non-verbal feedback icons (if enabled by the host): Places an icon beside your name to quickly notify the host.

If the meeting organizer enables the Nonverbal feedback feature, meeting participants can place an icon beside their name to communicate with the host and other participants without disrupting the flow of the meeting. For example, clicking Raise Hand places the raise hand icon beside your name to simulate a hand raise.

All participants can see the icons that everyone else has chosen. In addition, the host sees a summary of how many participants are displaying each icon, and has the option to remove all feedback.

Rename

Hover over your name, click More, and choose Rename to change your screen name displayed to other participants. This is a temporary change and will only be saved for the duration of the meeting

Profile Settings

To access your Zoom profile, sign in to the Zoom web portal and click Profile. You can view and edit the following settings:

Change Profile Picture

To add or change your profile picture, click Change, then adjust the crop area on your current picture or upload a new one. You can also delete your profile picture by clicking Delete.

Permanently Change Name

To change your name, click Edit on the right side. You can also add other profile information including Department, Job Title, Company, and Location.

Share Screen
Necessary when presenting.

Overview

While in a meeting, you can share the following content:
- Entire desktop or phone screen
- A specific application
- A portion of your screen
- Whiteboard
- Device audio
- Content from a second camera
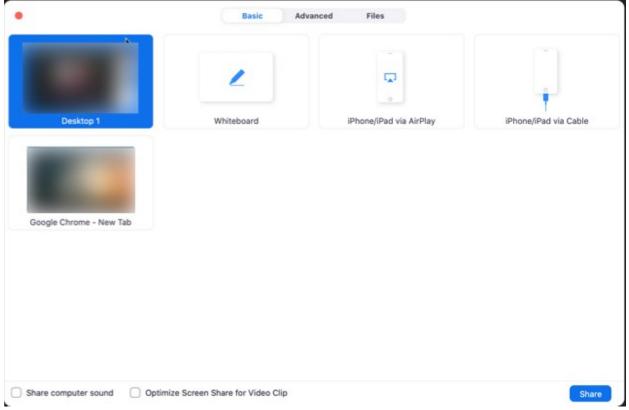- iPhone/iPad screen

Sharing your Screen or Content

1. Click the **Share Screen** button located in your meeting controls.

2. Select one of these screen share options:

- **Basic**: Share your entire desktop, specific application window, <u>whiteboard</u>, or <u>iPhone/iPad</u> screen.

- **Advanced tab**
  - **Portion of Screen**: Share a portion of your screen represented by a green border.

  - **Music or Computer Sound Only**: Only share your computer's audio (your selected speaker in your <u>audio settings</u>).

  - **Content from 2nd Camera**: Share a secondary camera connected to your computer; for example, a document camera or the integrated camera on your laptop.

- **Files**: Share a file from a third-party sharing service like Google Drive or Microsoft OneDrive. Follow the on-screen prompts to sign in to the third-party service and grant Zoom access.
  Note: Alternatively, you can open the file in a web browser then share the browser window. For example, to share a Google doc, open the doc in a Chrome browser, then share the Chrome browser window. The end result is the same as using the sharing options in the **Files** tab.

3. (Optional) Enable these features:
   • Check Share Computer Sound: If you check this option, any sound played by your computer will be shared in the meeting.
   • Check Optimize for full screen video clip: Check this if you will be sharing a video clip in full screen mode. Do not check this otherwise, as it may cause the shared screen to be blurry.
4. Click Share.
   • Zoom will automatically switch to full screen to optimize the shared screen view. To exit full-screen, click Exit Full Screen in the top-right corner or press the Esc key.
   • To disable automatic full screen when viewing a shared screen, disable this option in your desktop client settings: Enter full screen automatically when a participant shares screen.
   • If you selected Portion of Screen, customize the screen portion by dragging or resizing the green border.
   • If you selected Content from 2nd Camera, click Switch Camera in the top-left corner to switch the shared camera.

Share Screen Menu

When you start sharing your screen, the meeting controls will move into a menu that you can drag around your screen.

• Mute/Unmute: Mute or unmute your microphone.
• Start/Stop Video: Start or stop your in-meeting video.
• Participants/Manage Participants: View or manage the participants (if the host).
• New Share: Start a new screen share. You will be prompted to select which screen you want to share again.
• Pause Share: Pause your current shared screen.
• Annotate / Whiteboard: Display annotation tools for drawing, adding text, etc.
• More: Hover over more for additional options.

     • Chat: Open the chat window.
     • Record: Start recording locally or to the cloud.
     • Allow/Disable participants annotation: Allow or prevent the participants from annotating on your shared screen.
     • Show/Hide Names of Annotators: Show or hide the participants' name when they are annotating on a screen share. If set to show, the participant's name will briefly display beside their annotation.
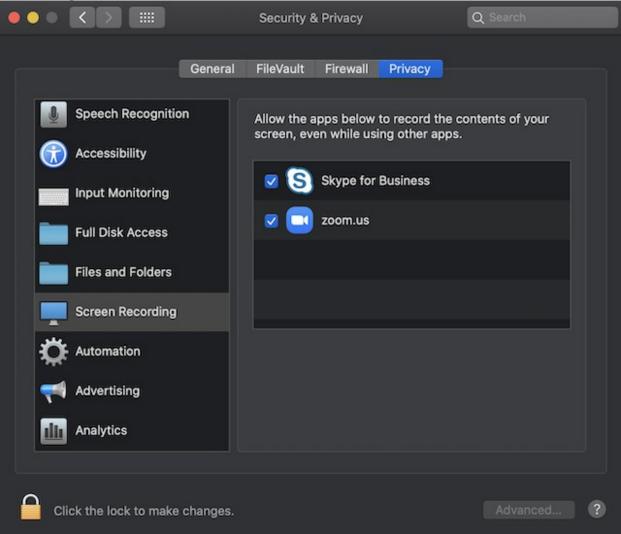

     • Optimize Share for Full-screen Video Clip: Start optimizing for a video clip in full screen mode.

Note: Do not enable this setting if you are not sharing a full screen video clip, as it will blur your screen share.

- End Meeting: Leave the meeting or end the meeting for all participants.

Using Dual Monitors

If you are using a dual monitor set-up, you can turn on the dual monitors feature to see the screen sharing on one monitor and participants on the second.

Note: On Mac OS 10.15 Catalina, you need to allow Zoom access to screen recording to share your screen. You can do this in your System Preferences > Security & Privacy > Privacy > Screen Recording. Check the option for zoom.us.

Leave Meeting

Leave the meeting while it continues for the other participants. Only the host can end the meeting.

Troubleshooting

Video/Camera is not Working

Prerequisites
- Zoom desktop client
- Zoom mobile app

If you have not already, test your video to confirm that the correct camera is selected and adjust your video settings. Learn how to test your video.

Troubleshooting Tips for macOS

1. Make sure that all other programs that utilize the camera, such as Photo Booth and Facetime, are closed.
2. Restart your computer.
3. If the camera still does not work in Zoom after restarting, check if the camera works in a Mac app, such as Photo Booth or Facetime.
   - If it works elsewhere, uninstall the Zoom client and reinstall the latest version from Zoom's Download Center.
   - If it does not work in any application, contact Apple support.

Troubleshooting tips for Windows

1. Make sure that all other programs that utilize the camera are not using the camera or are closed.
2. Restart your computer.
3. Uninstall the Zoom client and reinstall the latest version from Zoom's Download Center. Windows 10 has a privacy feature that may block Zoom from using the camera. Learn more about this feature and how to allow Zoom access to your webcam.

Audio is not Working on iOS or Android

Overview

Try these troubleshooting steps if you have microphone or speaker issues after joining a meeting on the Zoom mobile app for iOS or Android.

Prerequisites
- Zoom mobile app on iOS or Android (available on Apple App Store and Google Play)

Troubleshooting Speaker Issues

If you cannot hear other participants in a Zoom meeting, follow these steps to troubleshoot the issue.

- Ensure your speaker is turned on. If you see the speaker icon in the top-left corner is turned off, tap it to turn on your speaker:

- Increase the volume on your mobile device using the volume buttons or notification panel. Even if the speaker is turned on in Zoom, your device's volume might be set to mute or vibrate only.
- Try using earphones.
- Restart your mobile device.
- Reinstall Zoom from the Apple App Store or Google Play.
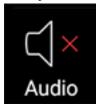
Troubleshooting Microphone Issues

If you are experiencing issues using your microphone with the Zoom mobile app, follow these steps to troubleshoot the issue:

- Ensure the microphone is not on mute. If you see the muted Audio icon in the meeting controls, tap it to unmute yourself:

  If you are still muted, the host may have muted you upon entering the meeting. Ask to be unmuted by sending a chat message to the host.
- Ensure you have connected your mobile device's audio. If you see the following Audio icon in the meeting controls, tap it and select Call via Device Audio. If prompted, allow Zoom to access your microphone.

- Try using earphones with a microphone.
- Ensure Zoom has access to your device's microphone.
    - iOS: Go to Settings > Privacy > Microphone and switch on the toggle for Zoom.
    - Android: Go to Settings > Apps & notifications > App permissions > Microphone and switch on the toggle for Zoom.
- Ensure that no other applications are using the microphone at the same time.
    - iOS: Double-tap the "Home" button to view apps currently running. Swipe up to close an app.
    - Android: Tap the multi-task button (the square icon usually in the bottom-right corner) to view apps currently running. Swipe left or right to close an app.
- Restart your iOS device.

- Reinstall Zoom from the [Apple App Store](#) or [Google Play.](#)

Audio Echo in a Meeting

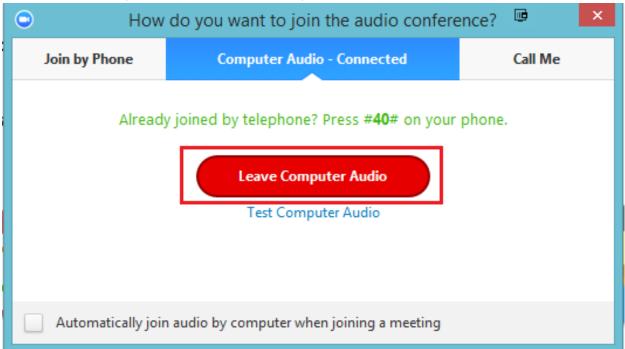If you hear audio echo or audio feedback during your meeting, there are 3 possible causes:

1. A participant has both the computer and telephone audio active
2. Participants with computer or telephones speakers that are too close to each other
3. Multiple computers with active audio in the same conference

room

Case 1: A participant has both the computer and telephone audio
active

If you join from a computer and call in from the telephone, please make sure you either
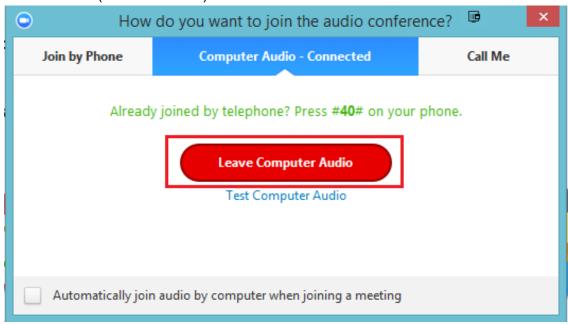
- Enter your *participant ID* when calling in, or enter your *#participant ID#* when already in the call

- Or, manually leave computer audio on your computer

Case 2: Participants with computer or telephones speakers that are too close to each other

If another participant is too close to you, and both of you have speakers on, please l*eave audio conference* on one of the computers or hang up of the the telephone connections.

Case 3: Multiple computers with active audio in the same conference room

If you are in a room with multiple devices, connected to the same Zoom room, disconnect or mute computer audio (speaker and microphone) from the other devices.

- Select Audio Options > Leave Computer Audio (PC/Mac)
  or Disconnect (Android/iPhone).

- Muting alone is not enough as you mute the mic but the speaker is still on.

Zoom Meeting Etiquette

Please abide by the following and use your discretion to create a productive environment:

- Please stay muted if you are not presenting
  - To connect with others directly or to pose a question to the entire audience, use the chat function
- Please refrain from using your video if you are not presenting
  - With such a large audience, video capabilities will consume a large portion of your bandwidth- making the video and audio capabilities lag significantly, making for an unideal environment for those presenting
- Use the non-verbal feedback buttons if you want to engage with the presenter.
- If the speaker calls on you, end your statement/comment/question with a sign-off like "that's all", "I'm done". Alternatively, send a chat to pose a question or comment
- If you think you will be talking or asked to talk, unmute ahead of time.
- Please do not use distracting, virtual backgrounds
- Check your internet connection prior to the start of the meeting
  - According to Zoom, minimum bandwidth is 600kbps (up/down) and the website recommends 1.5 Mbps (up/down)
- Ritter, F.E. (2020). How to be polite and helpful on phone conferences. ACS Tech. Note 2020-1. 6 page unpublished document.