

BIGBLUEBUTTON USER GUIDE

Version 1.0
June 2022

iTutor®

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Background

iTutor previously acquired WizIQ in 2018 and integrated the digital classroom experience into our Learning Management System (LMS). In 2021, we realized we experienced an unplanned outage of WizIQ and started to evaluate a supplemental digital classroom experience as an alternative to our in-house solution. During the discovery, we evaluated several key video conferencing providers but were very impressed with BigBlueButton. We plan to fully replace our WizIQ application in the coming months and we also plan to allow more flexibility by seeking other digital classroom tools to directly integrate into our Learning Management System.

iTutor's mission remains to empower our educators and students to an online experience that is interactive, engaged, and fosters learning. We continue to strive to create an experience online that emulates the experience that would be experienced in a school building, yet at the conveniences of educators and students.

BigBlueButton

BigBlueButton is an open-source web conferencing system designed for online learning. BigBlueButton is a tool used by educators, which helps them access to Learning Management Systems, engage tools and analytics.

BigBlueButton was born out of the Technology Innovation Management (TIM) program at Carleton University's Institute of Technology Entrepreneurship and Commercialization in Ottawa, Canada. BigBlueButton successfully launched in 2007. Since 2007 it has evolved to one of the largest online conference tool in education. BigBlueButton is focused on supporting educators with improved, online tools to allow teachers to connect with student learners in ways that are synchronized, collaborative, and fun.

Educators appreciate the intuitive nature of the BigBlueButton's feature set, including tools that make it easier for teachers to focus students on the lesson. Features like screen sharing, a multi-user whiteboard, breakout rooms, easy group polling, and so much more foster collaboration and keep students engaged.

As a result, BigBlueButton has been deeply embedded into major learning management systems used world-wide. It has been adopted by Canvas, Moodle Cloud, Sakai, Jenzabar, D2L, and Schoology as their default virtual classroom. Together, these vendors comprise more than 75% of the world-wide market for LMS systems. Everyday millions of educators and learners around the world, in over 65 languages, use BigBlueButton for their online classes.

BigBlueButton is an Open-Source Initiative Partner

The OSI helps to build a world where the freedoms and opportunities of open-source software can be enjoyed by all. The OSI supports institutions and individuals working together to create communities of practice in which the healthy open-source ecosystem thrives. BigBlueButton is an avid supporter of the Open-Source Initiative and through displaying this badge, symbolizes our

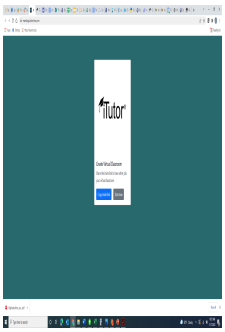
appreciation, respect, and support towards their mission to educate about and advocate for the benefits of open source and to build bridges among different constituencies in the open-source community.

Instructions

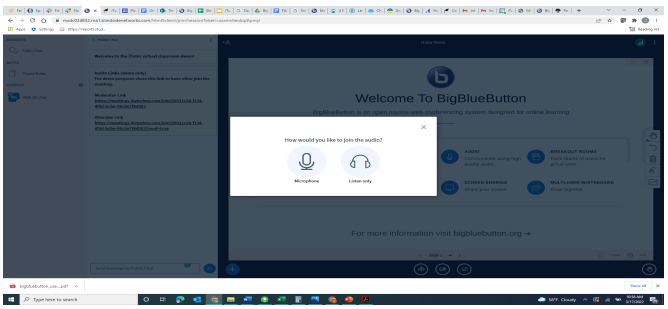
Accessing

To join a meeting in BigBlueButton you can either open the link from our Learning Management System (as we have integrated) or only or provide the link directly to the learner to copy and paste to a browser's address bar and press the ENTER key.

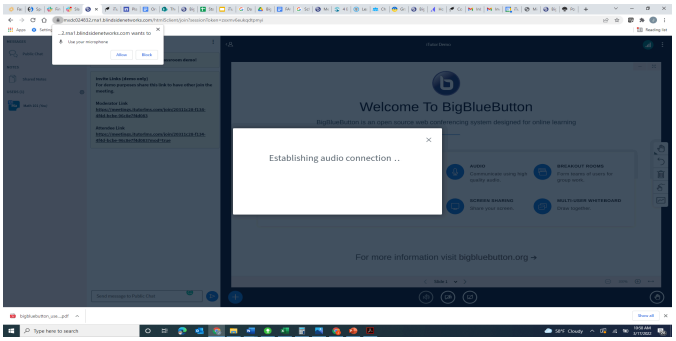
Launch



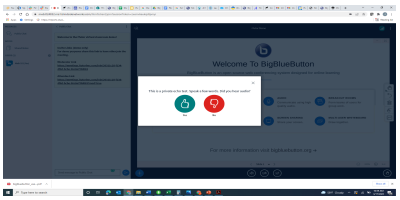
Activate Microphone



Test connection with echo



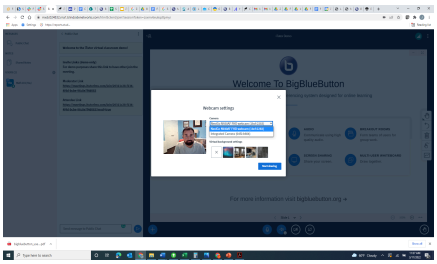
Enables the system to determine troubleshooting.



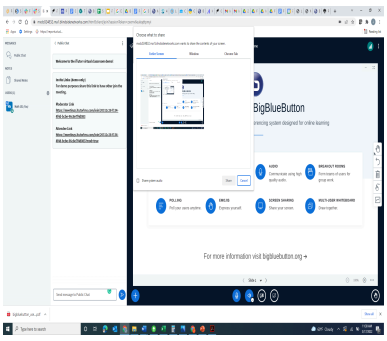
For engagement, promote educators/students should be available via camera. To do this select the camera at the bottom center of the screen.



If you are not able to see yourself in the left-hand picture of the webcam settings, make sure to try to select another camera. This is also where you can select a virtual background. Some things like running fans are known to cause learner distractions from the instruction, so consider the virtual backgrounds.



To share your screen, select the computer screen at the bottom center of the screen. This will generate a screen that allows you to share your entire screen (including all background applications) or you have the option to select a specific window such as Microsoft PowerPoint or Internet Explorer.



Minimum Requirements

Minimum requirements may vary depending on the device and browser being used.

We recommend all users ensure they are meeting the minimum requirements for BigBlueButton HTML5 prior to their first live session.

If you would like to test your connection prior to joining, please feel free to do so at: https://test.bigbluebutton.org/.

Recommended Browsers

The recommended browsers are:

Desktop/Laptop: Chrome, Firefox or Edge (latest versions)

Mobile iOS (12.2+): Safari Mobile

Mobile Android (6.0+): Chrome Mobile

Note: IE and **legacy EDGE** browsers are not supported.

Network connectivity

Each user should be able to make the following TCP/IP and UDP network connections.

Protocol	**Port(s)**	**Description**
TCP/IP	80	HTTP
TCP/IP	443	HTTPS
UDP	16384-32768	Encrypted WebRTC audio, video, and screen share media stream (DTLS-SRTP)

Note: If a firewall that blocks the UDP connections for the user, it would cause the media connections to "tunnel" through port 443, which, if is also behind a firewall, the user may experience performance issues with sharing and viewing audio/video.

Mobile Device Users

The following settings are recommended for all users connecting to BigBlueButton from a mobile device:

1. For data network, we recommended **4G LTI** for best results or **minimum 3G Network** to use audio, view presentation content, and receive screen sharing.
2. For connection via wireless, we recommend **private** versus public networks.

3. For device settings, we recommend **reducing device usage** while connecting to BigBlueButton; close applications that may run in the background and reduce browsing activities.

Additional Recommendations for Moderator/Presenters

Moderators and presenters can join BigBlueButton using a mobile device, however, use of more bandwidth intensive features such as the screen sharing may be limited.

We recommend Moderators and Presenters connect from a desktop or laptop device whenever possible to ensure all features and functions available in BigBlueButton are accessible to the user.

IMPORTANT: at this time screen sharing is not supported from mobile devices. Presenters who wish to use the screen sharing function should use a laptop, desktop, or Chromebook device.

Desktop/Laptop Users

The following settings are recommended for all users connecting to BigBlueButton via desktop or laptop device:

1. For computer, you need a laptop or desktop computer with (at least) 4G of memory and a 2+ Ghz processor (any computer bought in the last three years should be fine), or any Chromebook with 4G of memory and a 1.5+ Ghz processor.
2. For bandwidth, you must have at least 1.0 Mbits/second upstream and 2 Mbits/second downstream. To check bandwidth use, https://speedtest.net/.

3. For browsers, we recommend Google Chrome, Mozilla FireFox or Microsoft Edge.
4. For audio, we strongly recommend using a headset. A headset will ensure that others can hear your voice clearly and you don't cause echo or background noise for others. You do not need to buy an expensive one -- any basic headset with a built-in microphone will work.

A laptop with a built-in webcam and microphone will be sufficient as well if you're in a quiet area.

Additional recommendations for Moderator/Presenters:

Moderators and Presenters have the same requirements as viewers. For screen sharing, we recommend using FireFox, Chrome or Edge for the best results.

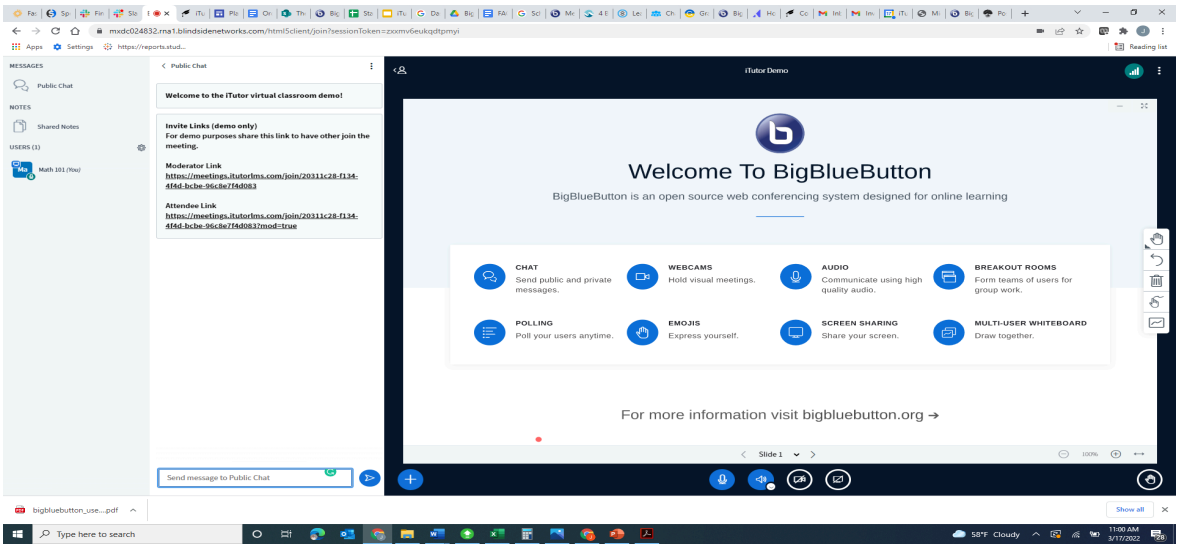
Screen sharing uses more bandwidth than sharing a webcam. To broadcast screen sharing takes about 1 Mbits/sec of upstream bandwidth. Therefore, for the current presenter -- such as when a

viewer (student) is made presenter by a moderator -- we recommend the presenter have upstream bandwidth of at least ***2 Mbits/sec***.

We recommend moderators or presenters connect through a wired network (not wireless) if possible. If connecting from a wireless network that is not reliable, you may experience periodic disconnects or gaps in your audio.

SESSION FEATURES

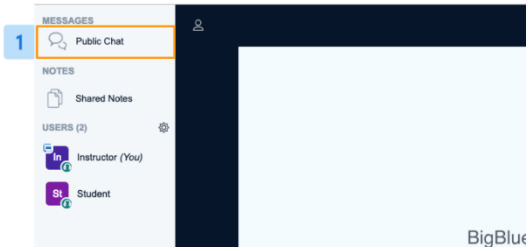
As the educator for the class, you have the option to chat, create breakout rooms, administrator polling, express yourself through emojis, and allow multi-user whiteboards.



Chat

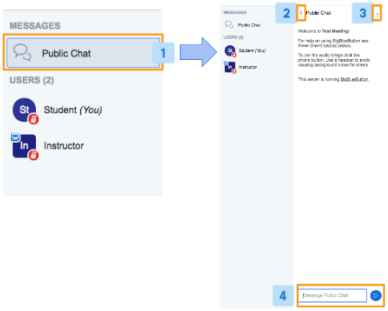
Anyone can send chat messages in BigBlueButton; you can send both public and private chat messages.

To send a Public Chat:



The **Public Chat [1]** panel is in the upper left-hand corner of the BigBlueButton interface.

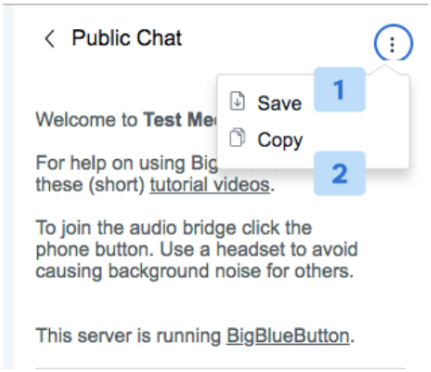
If you do not see the public chat option available you may need to select the **Users List / Chat Toggle [2]** to expand the users list panel and public chat.



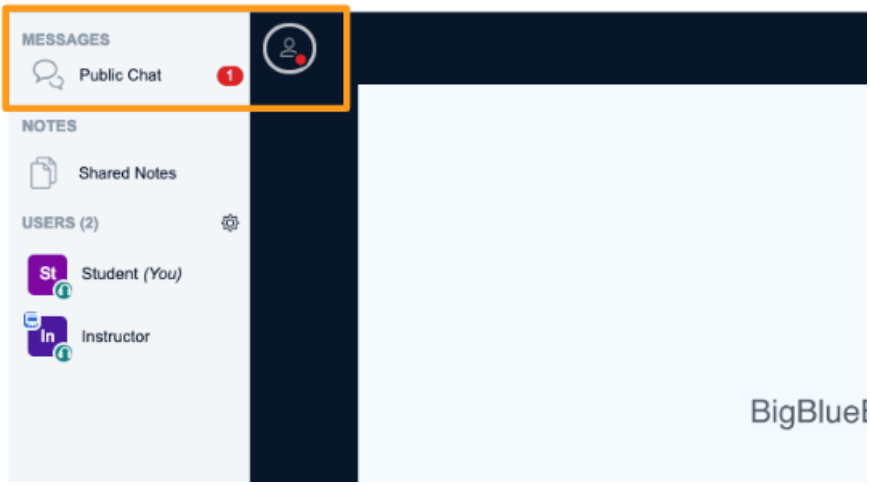
Select **Public Chat [1]** to expand the public chat panel. To hide the public chat panel, select the **"<" [2]** symbol.

Use the **Chat Input [4]** field to type messages into the public chat. Your chat messages (and messages from other users) will appear in chronological order.

You can save or download public chat by selecting **Chat Options [3]** menu.

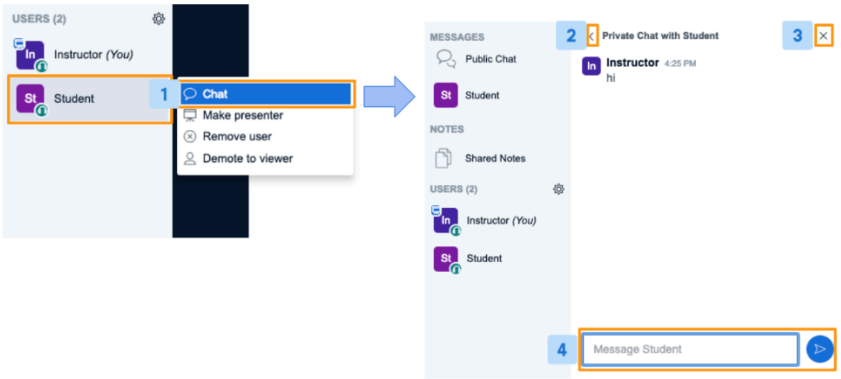


When the public chat pane is open you can either **Save [1]** (you will be prompted to download the public chat as a text file), or **Copy [2]**(the public chat will be copied to the clipboard) the chat.



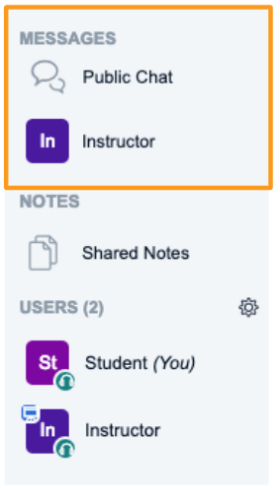
When minimized, the Chat indicator will appear when there are unread chat messages available.

To send a Private Chat:

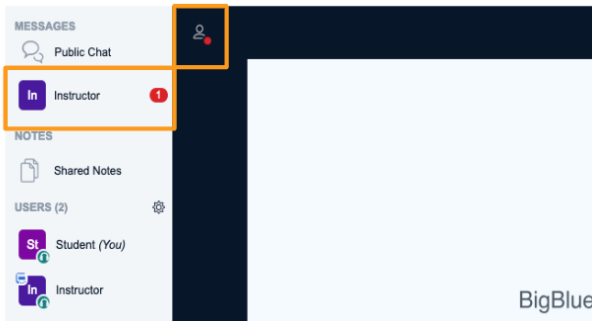


To private chat with another user, select their name (a pop-up menu will appear), choose **Chat [1]**. A **Private Chat panel** will appear. To hide the panel, select either **"<" [2]** or **"x" [3]**

Use the **Chat Input [4]** field to type messages into the private chat.



All public and private chat messages will appear under the Public Chat menu under **messages**.



As with the Public Chat, you will see a count of unread messages (highlighted in red) next to the username.

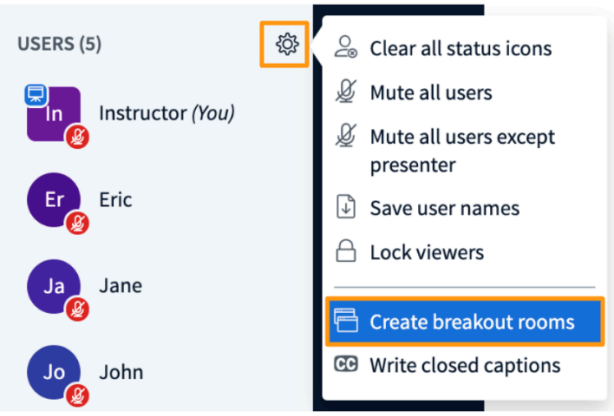
Breakout Rooms

BigBlueButton provides Breakout rooms as an additional means of student engagement; use breakout rooms to encourage small group discussion, collaboration, and cooperation amongst students.

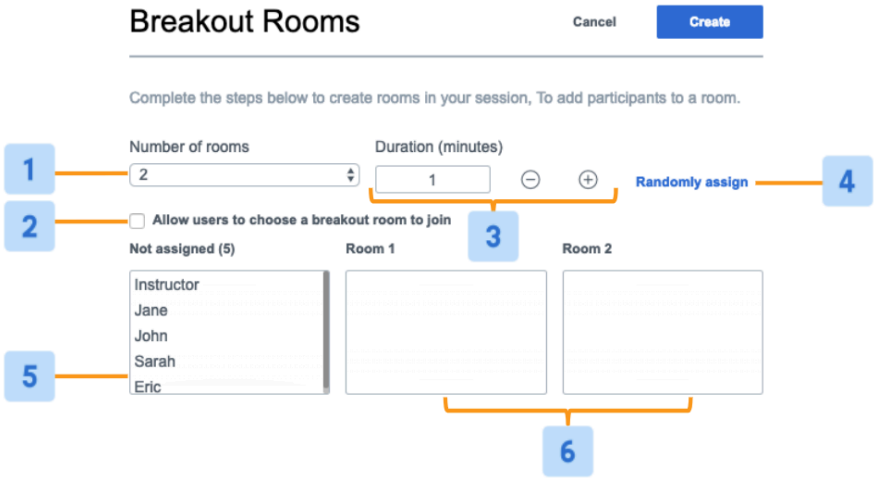
Moderators can create and manage student breakout rooms in their live BigBlueButton session(s).

To Create Breakout Rooms

When creating the breakout rooms, only viewers who have successfully joined the BigBlueButton session can be assigned to a meeting room; all those connected will appear in the users list of the interface.

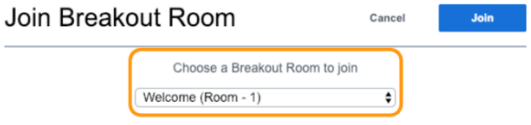


Moderators can **create breakout rooms** via the users list **Cog Wheel**



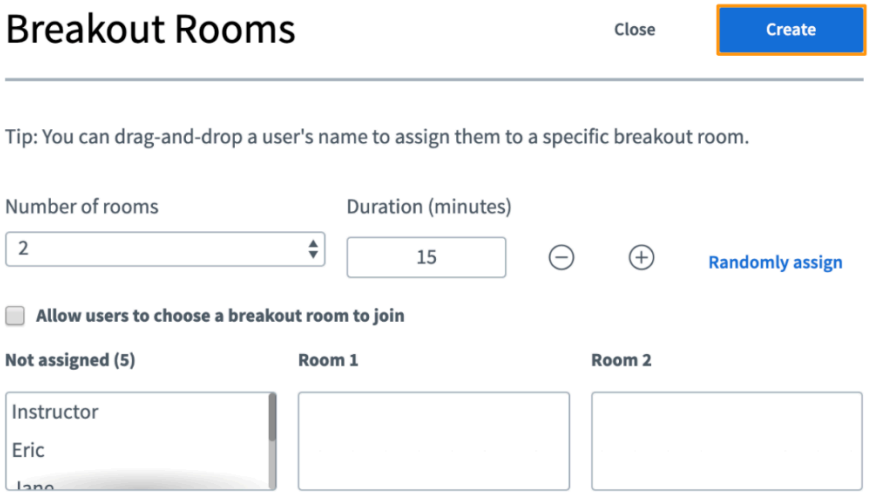
There are several ways the breakout rooms can be configured to achieve multiple discussion formats and sizes:

- **Number of rooms [1]:** by default, the minimum number of rooms is set at 2. Select from the drop down to change the number of breakout rooms; up to 24 maximum.
- **Allow users to choose a breakout room to join [2]:** when selected, this will enable viewers to select from a dropdown list of available breakout rooms when prompted (see below).



- Duration (minutes) [3]: **all rooms will close once this duration time is met; users will be brought back into the main meeting room.**

- Randomly assign [4]: **when selected, the BigBlueButton interface will randomly assign the viewers based on the number of rooms selected and the number of users to best achieve an even distribution in each room.**
- Not assigned [5]: **all users who have not been assigned to a breakout room will appear under this section.** It is important to note that moderators are not configured to join breakout rooms through the breakout room create panel.
- Created Rooms [6]: **rooms created will appear with assigned users.**



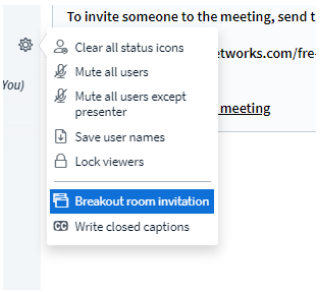
Once the breakout rooms have been configured, select **Create** to launch.

Viewers will receive a prompt to join the respective room they have been assigned to; all users assigned to join a room will be removed from the audio in the main meeting room and prompted to rejoin in their breakout room.

When viewers join the breakout room, they will see the current slide from the main room. The left/right arrows for slide navigation will be disabled as the breakout room has only one slide (the current slide from the main room).

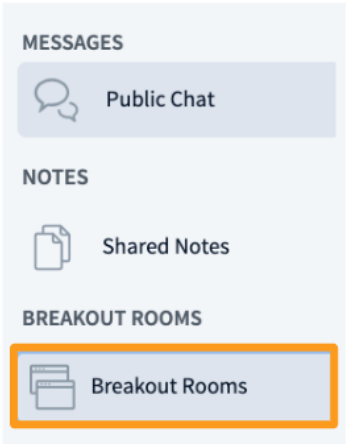
To Invite Late Joiners

The instructor can also use the gear icon to choose **Breakout room invitation** to invite any students not currently in a breakout room to join.

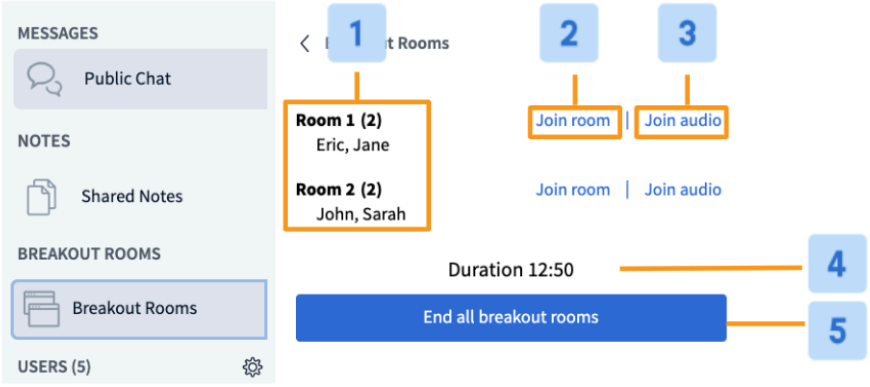


To Manage Breakout Rooms

When breakout rooms are created and viewers have successfully joined, moderators can manage and join the rooms from the main BigBlueButton meeting through the Breakout Room Control panel.

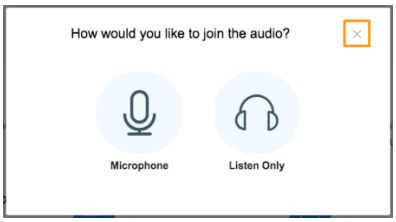


The moderator's **Breakout Room Control** panel will appear under messages above the users list to the left of the BigBlueButton interface. Select to expand and view.

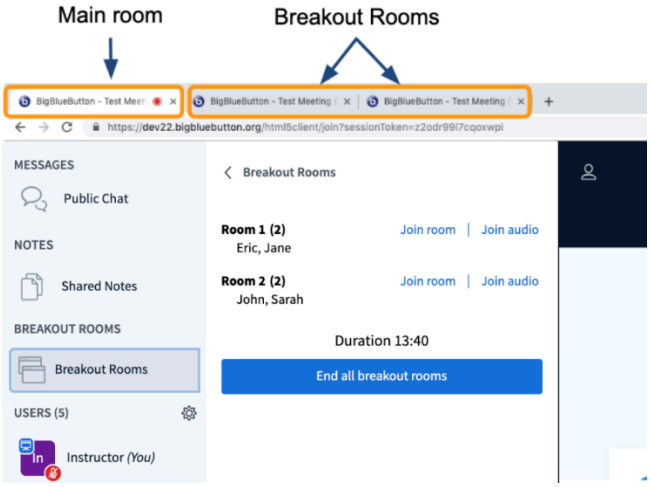


The breakout room control panel will list all active breakout rooms, **Number and Names of Attendees in Each Room [1],** as well as additional settings and moderator capabilities:

- **Join room [2]:** when selected, this enables you to join the breakout room directly; Moderator's audio will be disconnected from the main meeting room and a join prompt for the breakout room will prompt to connect audio in the room chosen.



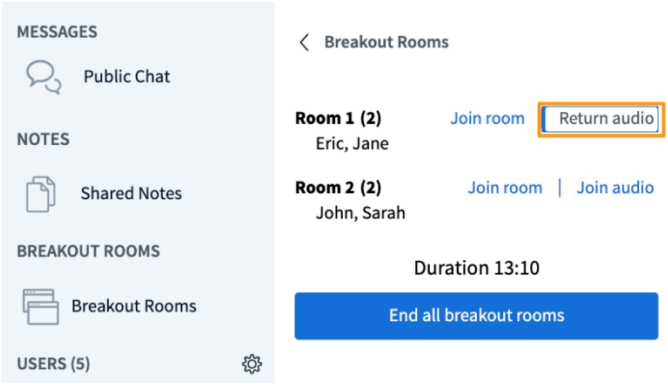
If you do not wish to join the audio in the breakout room, select the **"X"** in the audio chooser when prompted.



As the moderator you can open as many of the breakout rooms as you like via the **join** function. All additional breakout rooms tabs will appear at the top of the browser window.

- Join audio [3]: **when selected, this enables you to listen in on the breakout room selected. This does not prompt to join the room directly.**

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Select **return audio** to return to the main room.

- **Duration time [4]:** displays the remaining duration time of the breakout rooms.
- **End all breakout rooms [5]:** when selected, closes all breakout rooms before the duration time; all users will be kicked from their assigned breakout room and brought back to the parent room to rejoin the audio.

Important Notes and Recommendations

1) All viewers enter the breakout rooms with moderator status; the first individual to connect is assigned the presenter role. We recommend assigning one individual per room to be the "breakout captain" or be the individual responsible for uploading content or passing the presenter role during the discussion.
2) At this time breakout rooms cannot be recorded.
3) At this time content from the breakout rooms cannot be pulled to the main room.
4) Once the breakout rooms have been created and started, the duration cannot be extended.

Polling

Presenters in BigBlueButton can initiate polls throughout the live session; users can reply when prompted and contribute to the poll.

As a presenter you can use polling to engage students, perform test/exam reviews or pop quizzes, or use polling informally to collect information about your users.

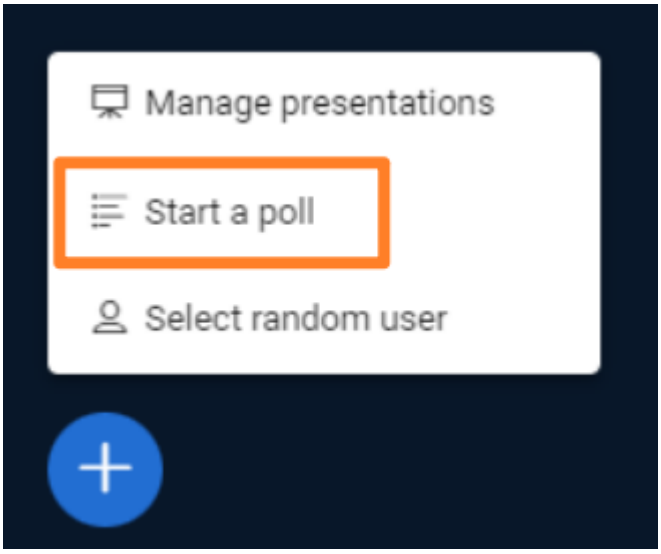
1) To start a poll
2) Polling verbally
3) Using a custom poll
4) Using smart slides

By default, the first **Moderator** to enter the BigBlueButton session is allocated the presenter role capabilities; if you are a viewer you will need to request presenter status from the moderator.

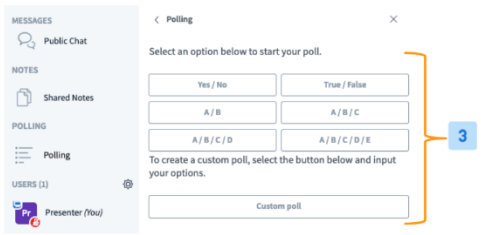


When a user has the presenter role, the **presenter icon** will appear over their avatar in the users list.

Starting a Poll



Select the **Actions menu [1]** in the lower left-hand corner of the presentation window, then **Start a poll [2]**.



The polling menu will open with several options. Use the **Quick or Custom Poll [5]** options to initiate a poll.

As users respond to the poll, the results are visible to the presenter in the polling menu.

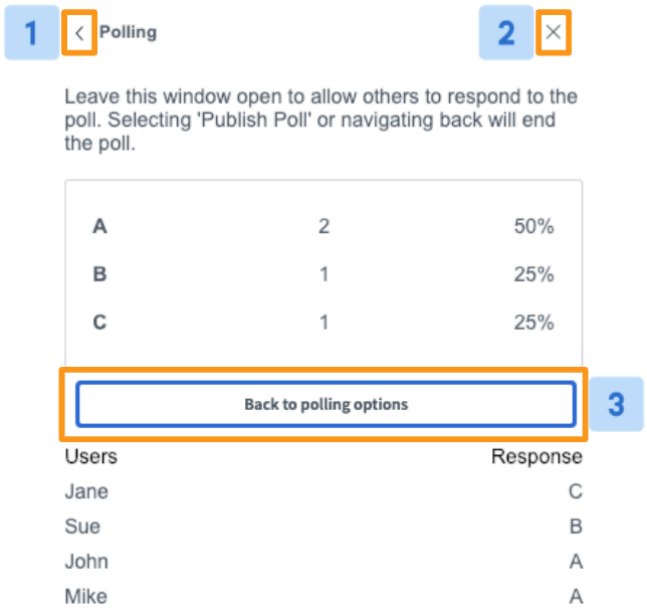


BigBlueButton displays the polling results in two ways: **Anonymized results [1]** and **Individual user responses [3]**.

The anonymized results can be **Published [2]** to the presentation area.

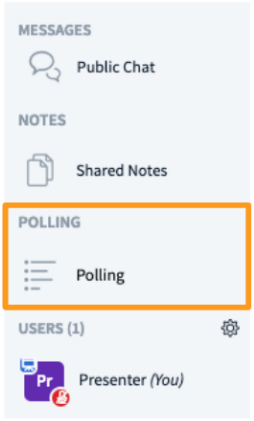


Once published, response options will no longer be available to users. Results will publish to the **bottom right-hand corner of the screen**; published results appear as annotations and will be viewable in the recording playback.



Select " to minimize the polling menu or **"X" [2]** to close.

To continue with another poll select **Back to polling options [3]**.

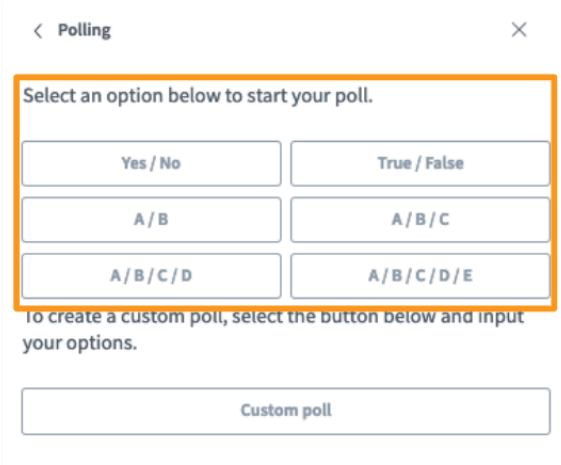


When minimized, the polling menu will appear under messages and above the users list. Select to reopen/continue polling.

Quick Polling

The most basic form of polling is a **Quick Poll** where the presenter asks the intended polling question verbally.

Quick polls are a great way to obtain "Yes/no" information or pose questions on the fly during the live session.



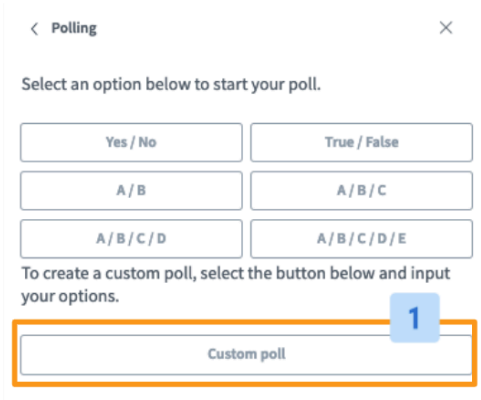
Once the question has been asked you can then select the appropriate response from the list of **quick polling options**.

Custom Polling

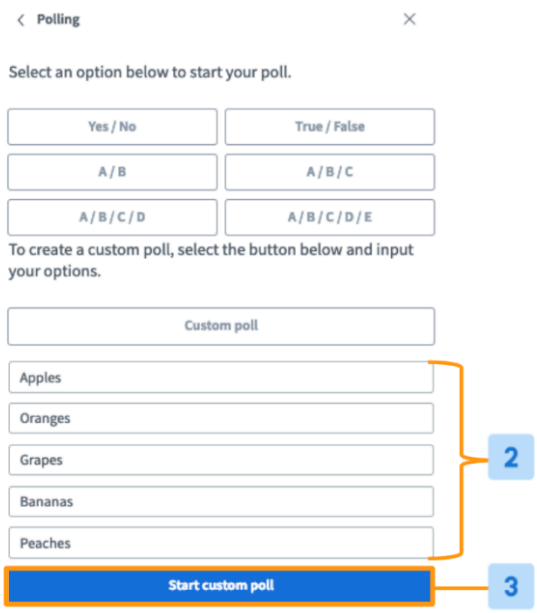
A presenter has the option of creating a custom poll while in a live session to input specific polling options that are not listed in the quick polling list.

The presenter would still ask the intended polling question verbally.

Custom polling is a great way to ask more specific questions or provide more tailored response options.



Select the Custom Poll [1] option from the polling menu.

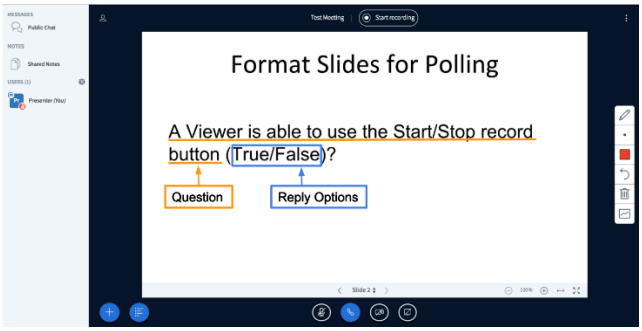


Enter up to five custom response options into the **Input Fields [2]**, then select **Start Custom Poll [3]** to initiate.

Smart Slides

Smart slides enable a presenter to prepare a polling slide deck in advance or include polling questions in their regular content.

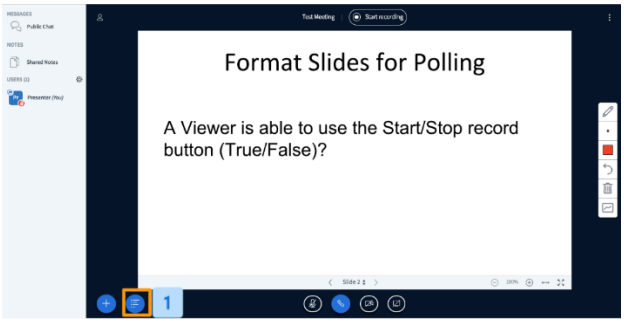
With smart slides, BigBlueButton detects when a question is being posed and provides a quick polling option to the presenter.



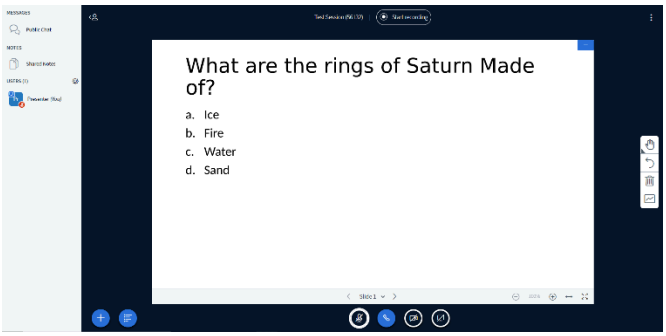
To create smart slides, ensure you are using the the format: "question" followed by "reply options".

We recommend using the following reply options for best results:

- True/False
- Yes/No
- Multiple Choice



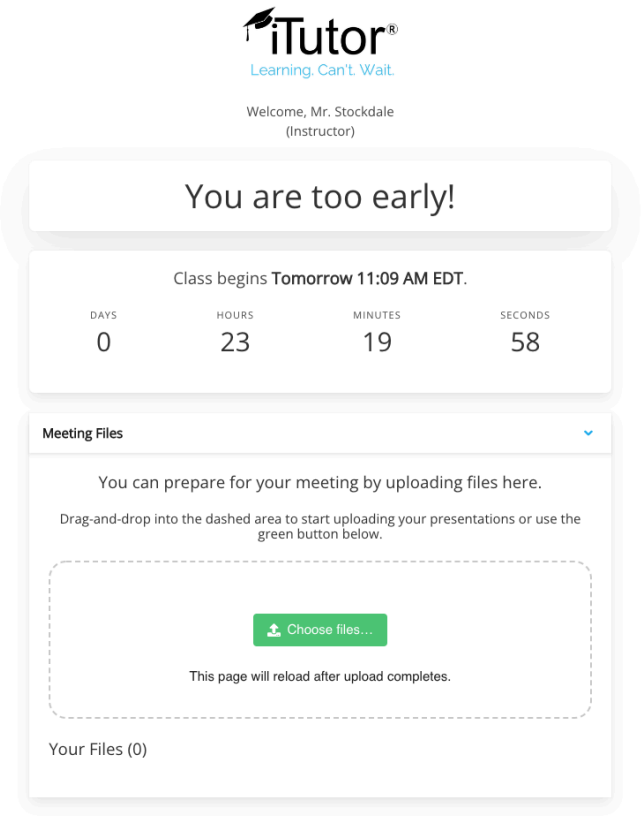
When questions and reply options are displayed, the BigBlueButton detects the intended poll and provides the presenter with a **Quick Polling button [1]**.



Select the quick polling button to initiate the poll without navigating through the action menu or using the polling menu.

Uploading Lesson Materials

Presenters in BigBlueButton can upload lesson materials in advance of each session.



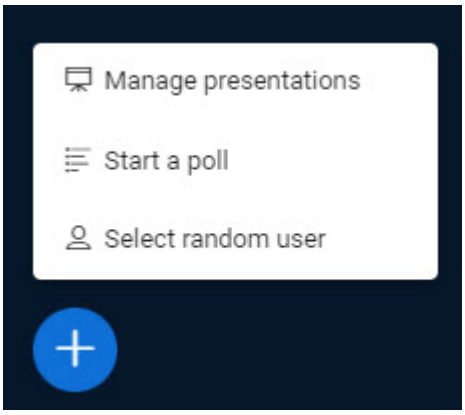
Just click the session link, and either drag and drop the files you wish to use during your session or select “Choose files…” to upload. Once your files are uploaded, you can close out of the window.

When you return at the start of your session, you can “Join Class” and the files you previously uploaded will be automatically loaded into the session for you and your students.

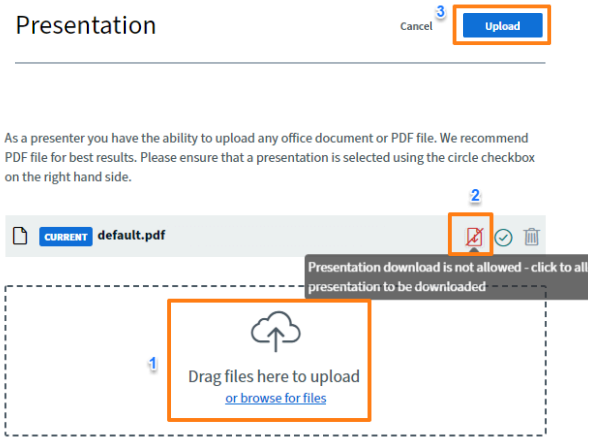
Manage Presentations

Presenters in BigBlueButton can manage presentations throughout the live session.

As a presenter, you can manage presentations to upload multiple content files you plan to use during the session.

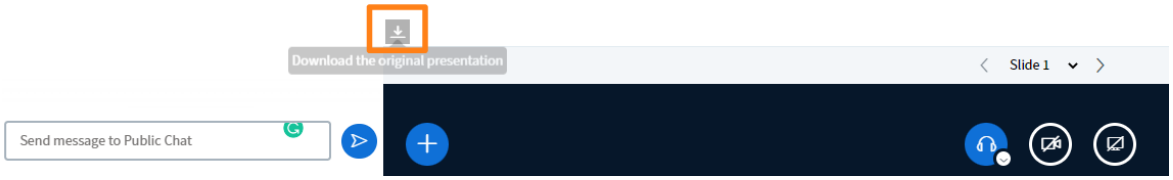


Once you've entered the session, click the plus icon. Then, click Manage presentations.

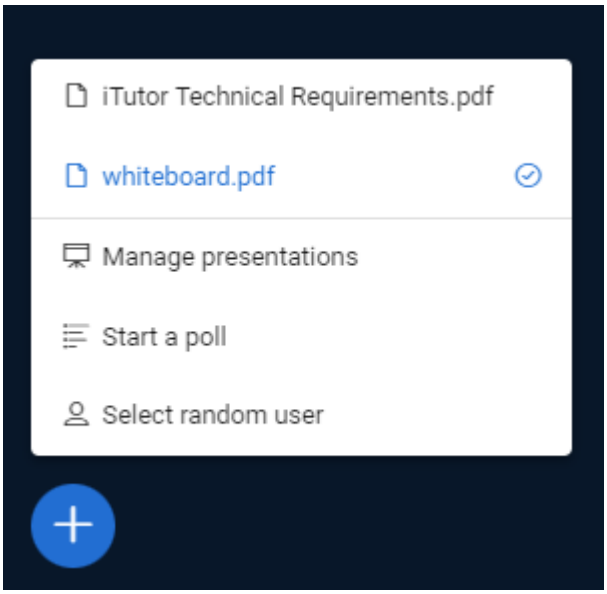


From the Presentation page, drag files to upload or browse for files. Allowable files types are PDF and most office formats.

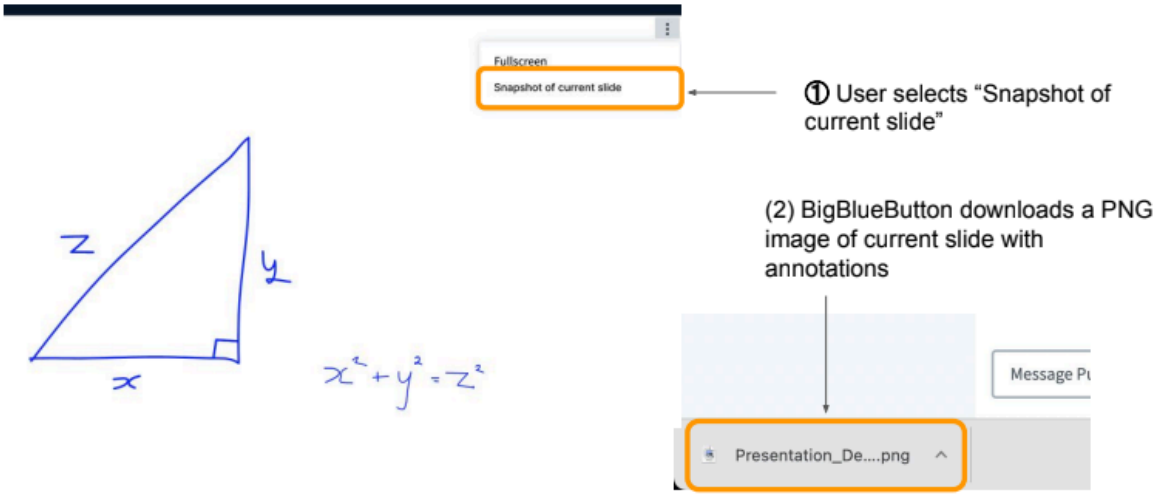
If you want to allow the presentation to be downloaded, click the download icon for each piece of content. Then, click Upload.



When you're back in the session, you'll see an icon to download the presentation.

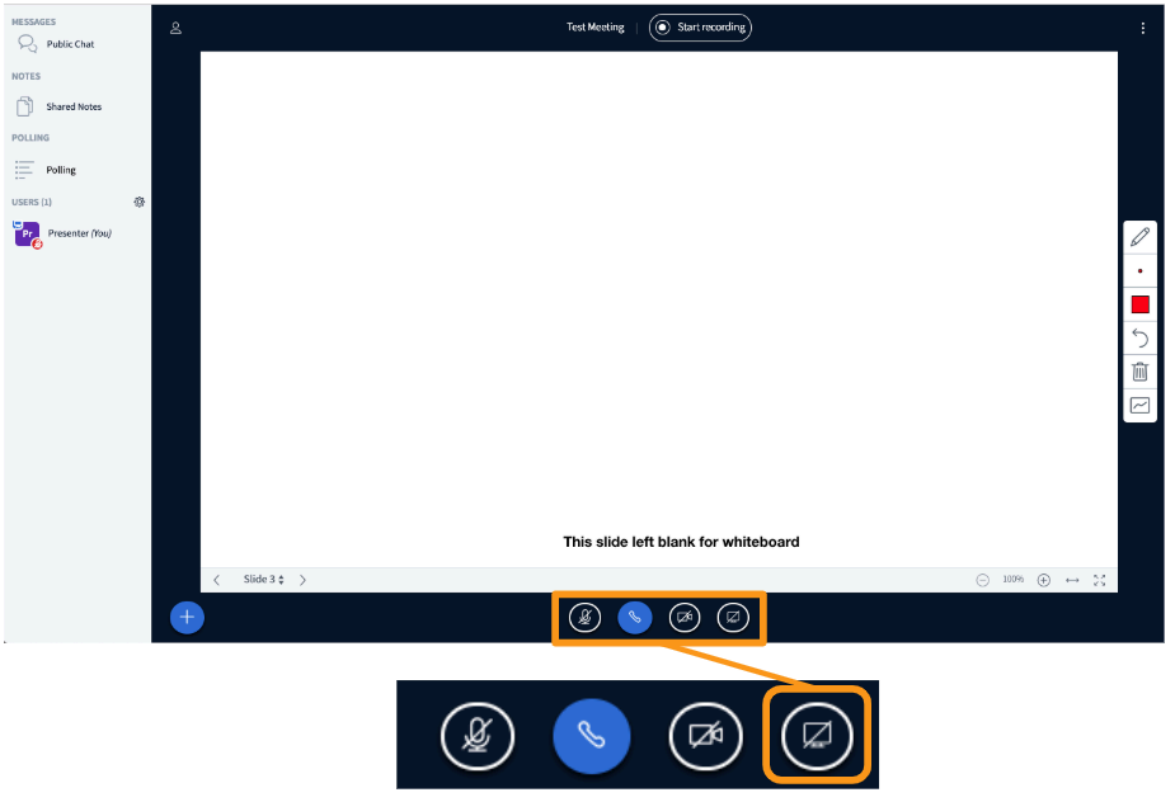


To switch to your other presentations, click the plus icon and select the presentation's name.



To download slide-by-slide annotations, click the 3 dot menu in the upper-right corner. Then, click Snapshot of current slide.

Share your Screen

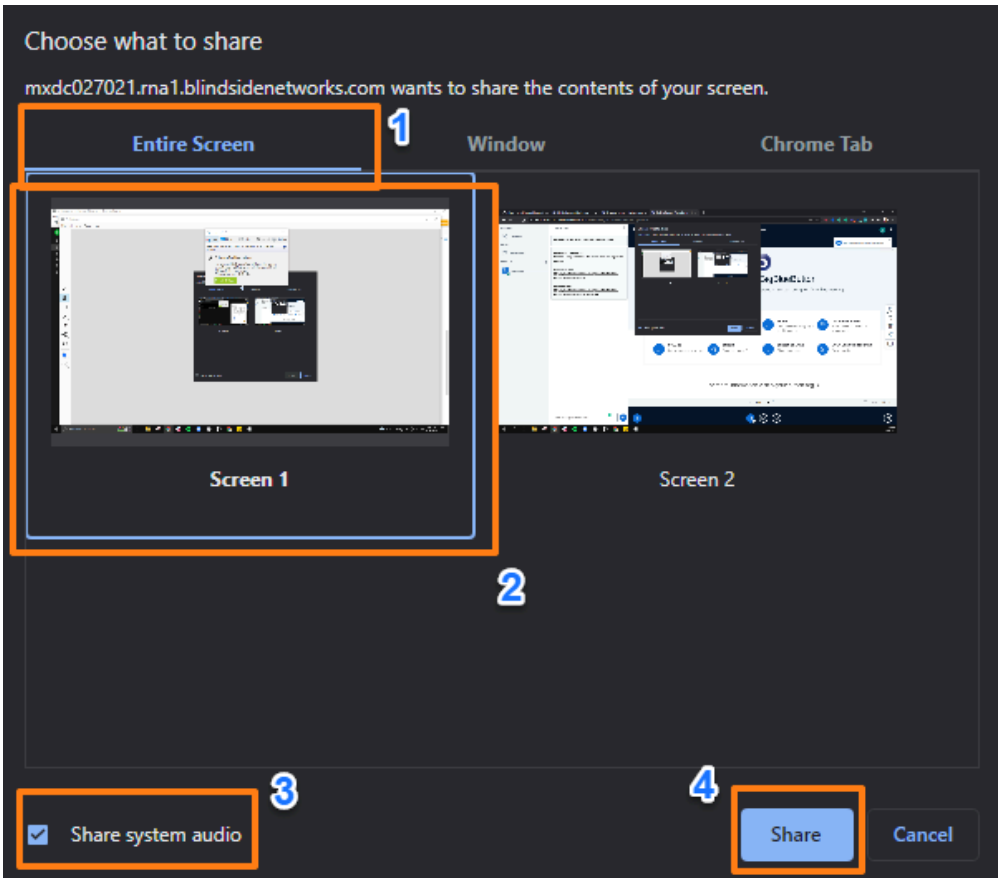


Select the Screen Share icon found in the media bar of the BigBlueButton interface.

The next steps will vary depending on the Browser you are using:

Chrome

Be sure to open any applications or additional browser windows you wish to share before engaging the screen sharing in BigBlueButton.

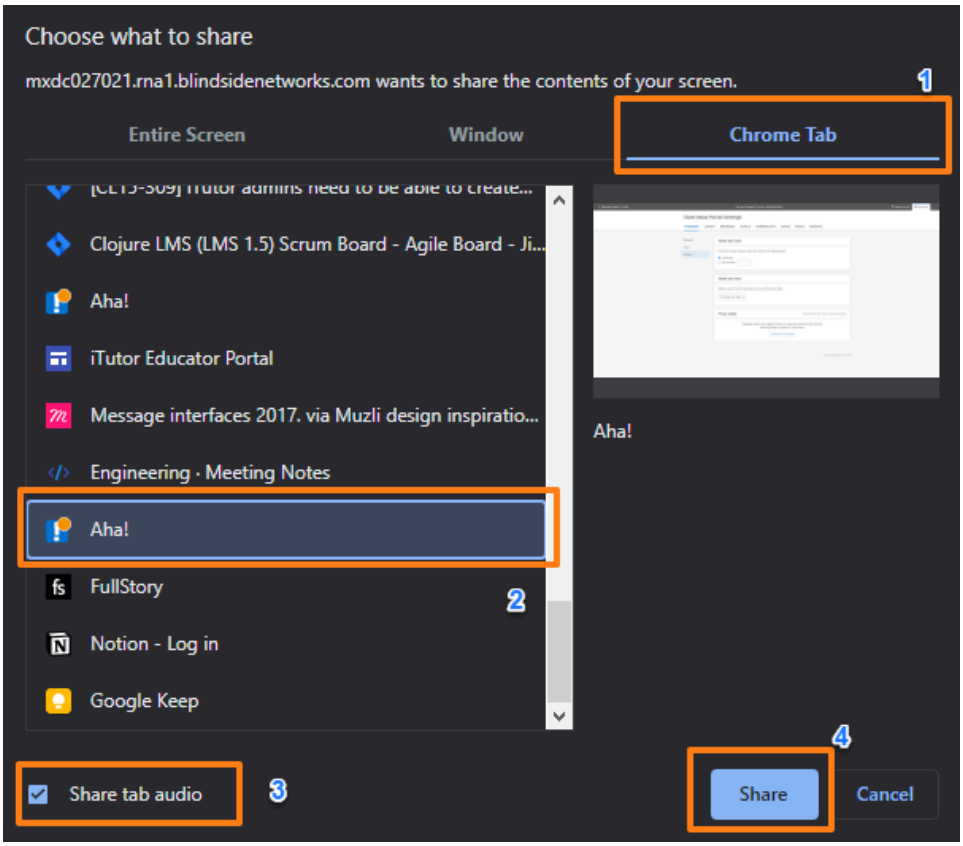


If you are using Chrome Browser **on a Windows operating system** you will be prompted to choose either your Entire Screen, Window, or Chrome tab [1].

Next you will be prompted to select the Preferred Screen [2]. If you do not select a preferred screen you will not be able to proceed.

Once you have configured the screen share to your preference, and you want to share audio as well, be sure to select Share system audio [3] to begin sharing with attendees.

Then, click Share [4].



However, if you are using Chrome Browser **on a Mac operating system** and you want to share audio, you have to choose the Chrome Tab setting [1].

Next you will be prompted to select the Preferred Tab [2]. If you do not select a preferred tab, you will not be able to proceed.

Once you have configured the screen share to your preference, and you want to share audio as well, be sure to select Share tab audio [3] to begin sharing with attendees.

Then, click Share [4].

IMPORTANT NOTES:

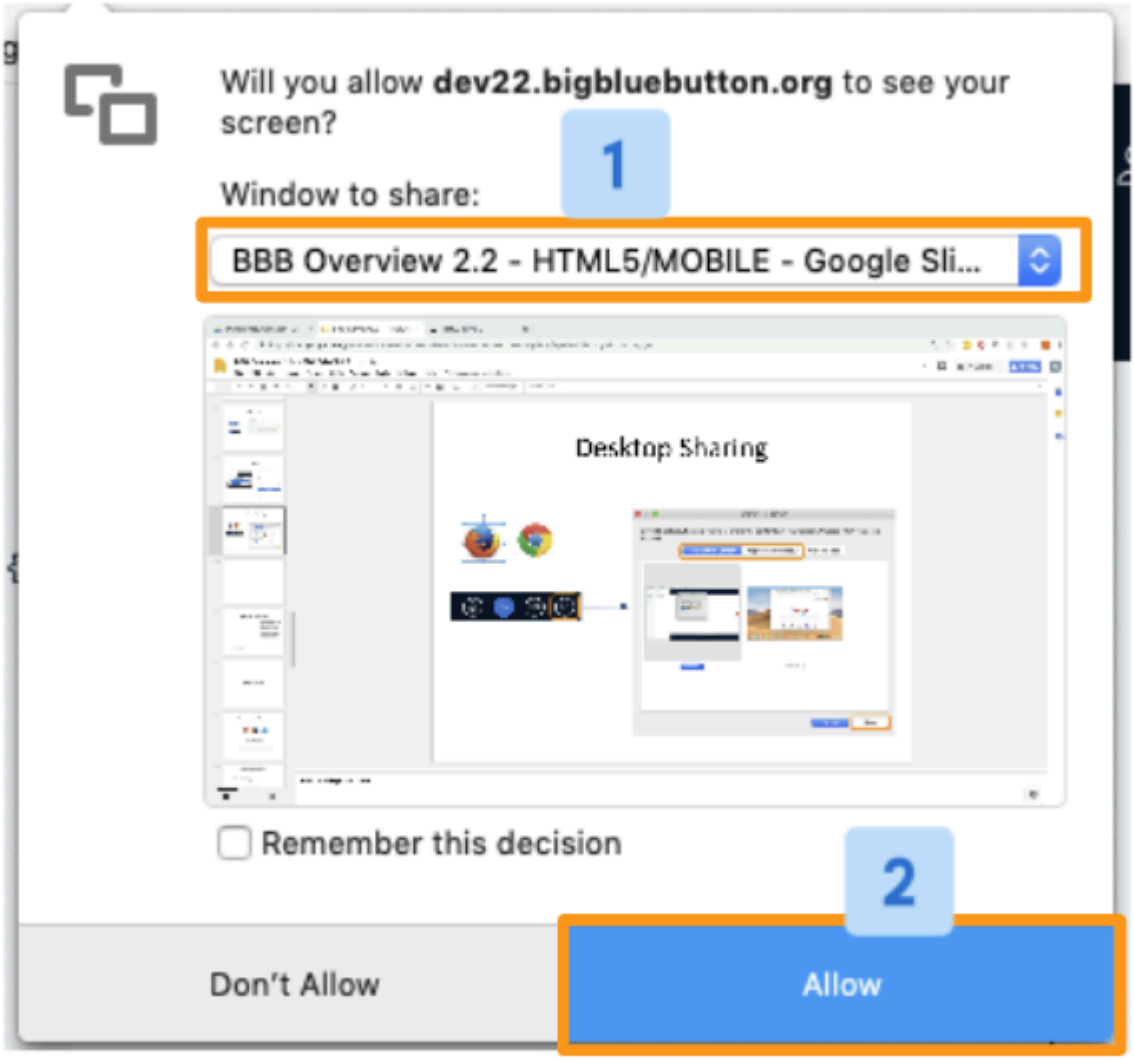
- When sharing Your Entire Screen users will see your screen even when navigating to another browser or application window. This setting is recommended if you plan to use several different applications and do not wish to reconfigure the screen share with each change.

- When sharing An Application Window users will only see the application selected; if you navigate outside the chosen application the users will not see these actions. This setting is

recommended if you plan to use the same application; sharing an application window also requires less bandwidth than sharing your entire screen.

Firefox

Be sure to open any applications or additional browser windows you wish to share before engaging the screen sharing in BigBlueButton.

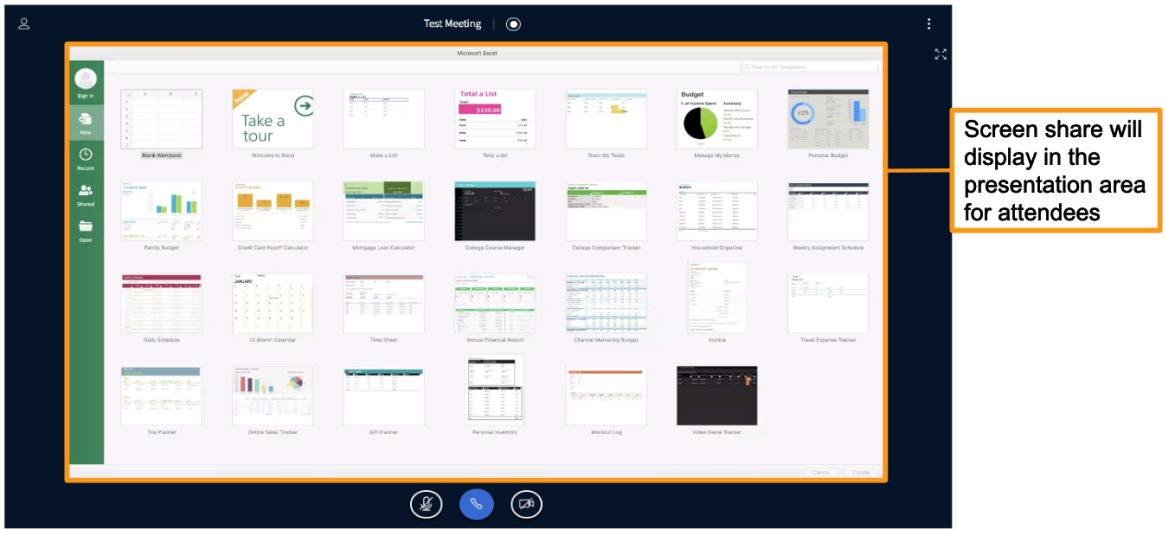


If you are using Firefox Browser you will be prompted to choose the Window to Share [1] from the drop down.

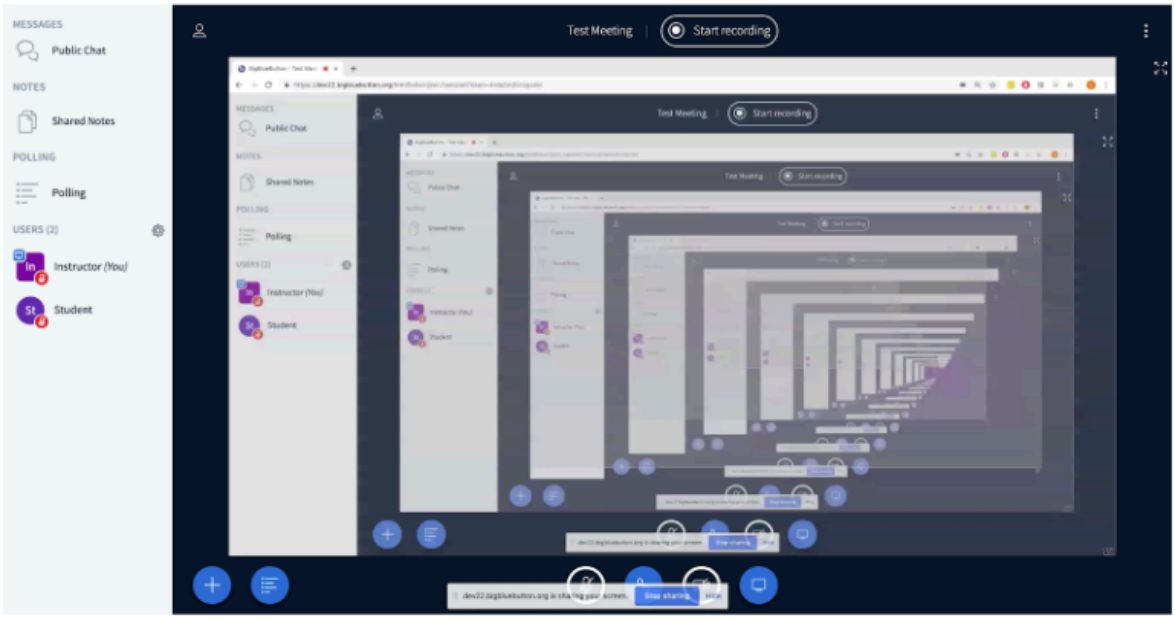
If you do not see the window you would like to share, it may not be open. Be sure to open the application or window you intend to share then re-start the screen sharing. You should see the window in the list of available options.

Once you have configured the screen share to your preference select Allow [2] to begin sharing with attendees.

What Users See



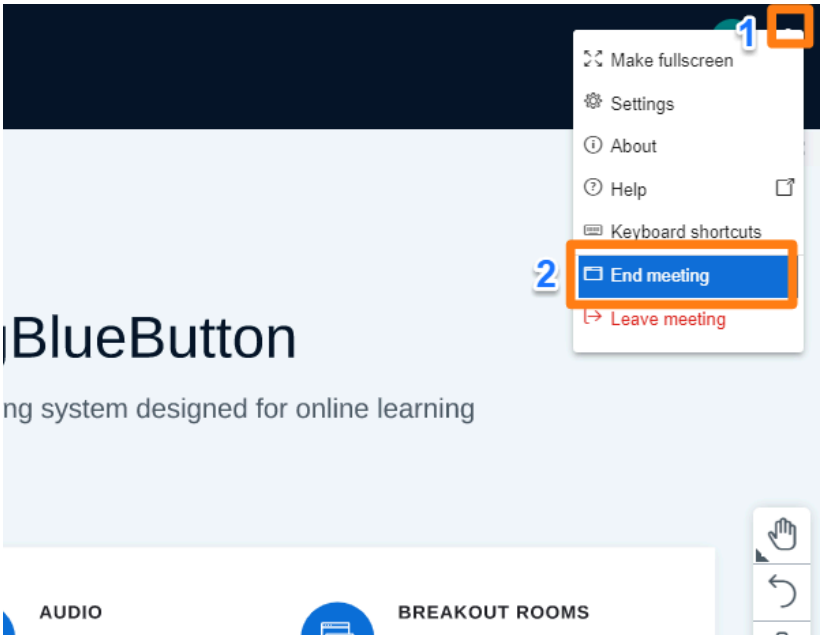
Users will see the screen share displayed in the presentation area of the BigBlueButton interface. It no longer loads into a separate window.



When the presenter is in BigBlueButton, screen sharing will duplicate to create a mirrored broadcast of the screen - DON'T WORRY as this is not what viewers see when in another tab or an application window.

End the Session

All educators should end the session at the scheduled end time.



To end a session, click the 3 dot menu in the upper-right corner of the screen. Then, click end meeting. This will close the meeting for all participants. If you close the tab or “leave” the meeting, student may be left in the session unattended, so be sure to “end” each session.