**Best Practices for Teaching via Videoconferencing at Penn State**

Delivered by the Faculty Engagement Subcommittee for Penn State



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Best Practices for Teaching via Videoconferencing at Penn State

# Videoconferencing

Videoconferencing is a method of extending your classroom to participants at different locations. This can be accomplished through personal computer-based videoconferencing systems and also through room-based systems, which require participants to go to a physical location where specialized videoconferencing equipment has been installed.

Many instructors believe that preparing for and delivering effective videoconferencing is “no different” than preparing for and delivering a traditional class. However, there are some methods and techniques specific to videoconferencing that research has shown to be effective in the teaching and learning process. Awareness of these approaches will assist you in preparing for and delivering educationally sound videoconferencing instruction. This document introduces the best approaches to use before, during, and after a videoconference.

## Is Videoconferencing the Best Choice?

Below is a list of pros and cons to consider when contemplating videoconferencing as a delivery method.

### Pros

* Instructors and students from multiple campuses may participate in the same course at the same time.
* Videoconferencing provides a good way of showing instructionally-relevant motion and video.
* Videoconferencing can bring local and distant participants together in real time and provide human interaction.
* Videoconferencing may have built-in tools such as whiteboards, screen sharing, and chat to enhance the learning environment.
* Recording options may be available so others can view the session at a later time.

### Cons

* The video portion of a videoconference is instructionally irrelevant if it is not used for anything beyond showing the speaker or instructor.
* The quality of the experience (video and audio) may vary from site to site.
* Videoconferencing can require significant technological resources and training for both the instructor and participants.
* The process may require additional support staff.

## Choose the Videoconferencing Technology that Best Meets Your Needs

Penn State supports the following videoconferencing systems:

### Computer-Based Systems:

* Zoom – See <http://conferencing.psu.edu/>. Available to all.
* Adobe Connect – See <https://meeting.psu.edu/>. Available to all. This service will be available through Spring 2018, but will be retired at some time after that. See also the [Adobe Connect ITS Knowledgebase article](http://kb.its.psu.edu/meeting) (see <http://kb.its.psu.edu/meeting>) to learn more about how to use this technology.
* Blackboard Collaborate – Available only to World Campus instructors. See <https://courses.worldcampus.psu.edu/public/elive/scheduler/eliveintro.html>.

Room-Based Systems:

* Polycom – Available in dedicated, schedulable videoconferencing rooms only. See <http://www.encs.psu.edu/services/video-conferencing/>.
* MediaSite Live – Primarily a lecture-capture technology. Available in several specific rooms at University Park. May be available in other rooms/locations if requested. See <https://libraries.psu.edu/about/departments/media-and-technology-support-services-wagner-annex/mediasite-live>.

### Canvas Systems

Big Blue Button - Available only in Canvas student groups. See <https://community.canvaslms.com/docs/DOC-10522>

### Which System is Right for You?

If it appears that several systems might meet your need, it is recommended that you try each available system to determine which one is best for you.

The most important question to ask when choosing a system is, “Does the videoconferencing system support my learning objectives?” If not, can you modify or improvise on the system to make it support them?

## Before the Videoconferencing Session

This is a recommended list of activities to follow before the live videoconferencing session:

* Choose the technology that best fits your needs and instructional goals.
* Meet with your technical support staff.
	+ Common questions to ask include:
		- How do I access the equipment and the system?
		- How do my participants access the equipment and the system?
		- How do I receive emergency assistance?
		- May I do a practice run with you?
* If you are running the video conferencing technology yourself, know how to operate the systems.
	+ See a list of rooms with dedicated videoconferencing equipment at Penn State. Available at <https://webapps.tns.its.psu.edu/Video/PublicContent/VideoConferenceRoomsList/All>.
	+ For Zoom, see <http://conferencing.psu.edu/> for more information.
	+ IT Training Services offers training on some videoconferencing systems. See <https://psu.csod.com/LMS/BrowseTraining/BrowseTraining.aspx?s=539#f=1&s=539&o=1>.
	+ World Campus offers training related to videoconferencing. See <http://wcfd.psu.edu/>.
* Complete a practice run at least 24 hours before the live session.
* Prepare and distribute all relevant materials, including a videoconferencing etiquette summary (see Appendix E for an example), to your participants. This may be done via email.
* If you plan to share a recording of the session with others not directly participating in the session, it is recommended that you obtain signed release forms from all session participants. Penn State Media Commons has recording release forms that you can use. See <http://mediacommons.psu.edu/students/release-forms/> .
* Ensure your remote participants are prepared to participate, access, and utilize the equipment (e.g., activate their microphones, utilize the chat tool, etc.).
* Have a backup plan in case the technology fails.
* Arrive 15-20 minutes before the session to test the equipment.

## Copyright Concerns

Ensure you have the right to show any video, images, etc. that you plan to use during the videoconference. Refer to the Penn State Copyright Portal (see <http://copyright.psu.edu/>) and the TLT Teach Act Website (see <http://tlt.its.psu.edu/teach-act/>) for more information.

It is recommended that all self-created videos and related materials should have a copyright statement to show Penn State ownership. Check with your development group or department head to see if this is required. Prepare and distribute all relevant materials prior to the videoconference. An example of a Penn State copyright would be: The Pennsylvania State University © [Year]. All rights reserved.

## Accessibility

When you are distributing University information electronically, including pre-recorded video, you should include the accommodation (ADA and Nondiscrimination) statements. Because video may easily be circulated outside of the University community, it should include the appropriate accommodation statements (even though it is not a printed publication). Additional information can be found at the Penn State Accessibility Website. See <http://accessibility.psu.edu/>. Please note that any video recording distributed to the public **must** be close captioned.

## Meet With Your Technical Support Staff

If you have access to support personnel, meet with them to discuss your needs well in advance of the live session.

Make sure you also have their contact information and a way to contact them during the live session if equipment malfunctions. Ask them to train you on how to use the equipment. Ideally, you want to be able to run the equipment without assistance, but if they are available to facilitate the session, this frees you from the responsibility of running the technology.

For a list of contacts for videoconferencing rooms at Penn State, see a list of videoconferencing rooms at Penn State. Available at <https://webapps.tns.its.psu.edu/Video/PublicContent/VideoConferenceRoomsList/All>.

### Know Your Equipment and Systems

Ideally your technical support staff will train you. If you do not have a dedicated technical staff, consider contacting the department that hosts the system for initial support.

* IT Training Services offers training on some videoconferencing systems. See <https://psu.csod.com/GlobalSearch/search.aspx?s=1&q=videoconf> .
* Zoom offers a variety of help, including one-minute video intros. See <https://support.zoom.us/hc/en-us>.
* If you are not in a dedicated room, determine your Internet connection speed. Will it support video if you need it?
* If you have cameras, consider using several camera presets for different areas of the room. Some systems allow you to point the camera to a specific (local or remote) location and save that “pose” for later recall via a button push. This greatly facilitates conversations during the live session; when someone is talking, you can push a button and the camera will focus on that individual. Always focus on people, not objects.
* If you set a preset on yourself, follow the elbows and wrists rule. When you stretch out your arms, the edge of the screen should fall between your elbows and wrists. Ten percent of the picture area should be left above the head.
* Note the microphone placement in the room.
	+ Are there multiple microphones, or is there only one that must be shared? If so, can it be shared? If it is fixed in place, you should plan on repeating any statements or questions from participants into the microphone so remote participants can hear the statement or question.
	+ A common problem with audio is feedback or echoing. This happens when an open microphone is too close to a speaker – the sound loops from the speaker to the microphone, from the microphone back to the speaker, etc. Thus, microphones should not be active unless one is speaking, and even so you may need to recommend the use of headsets with microphones for participants to eliminate this problem.
* Check the room lighting and see if you can adjust it so that the video is not washed out or too dark. Most cameras work better with more light.
* If possible, adjust the camera so ceiling lights are not directly in the video.
* Ideally, the wall behind you should be darker than your face to avoid backlighting, which would put your face in a shadow.
* Does your system support session recordings? If it does and if you want to utilize that feature to record your live session, learn how to do so prior to the live session. Set a visible reminder to start the recording when the session begins.

## Encouraging Communication and Interaction

The following are questions and statements to consider when planning for communication and interaction in a videoconference course:

* Consider listing or describing the session communication methods at the start of the session. Some systems allow for virtual raised hands that appear as small icons on the screen. These icons may appear when you are not looking or may otherwise be difficult to notice, so you may want to encourage participants to hold up something brightly colored to gain your attention instead. Other systems allow for chat communication, so you will have to frequently monitor that space and respond to these text-based communications.
* Anticipate what types of interaction will occur:
	+ How will the interaction occur? (Videoconference session? Website? Box?)
	+ Does the interaction support your learning objectives and goals?
* Ensure support materials are available for class activities.
* Decide if activities will be individual or group based.
* Determine if groups will be local (all in the same physical room) or if they will be a mix of some in the same physical room and some in the remote location via the videoconferencing system. Local groups are easier to manage, as they do not need to rely on the videoconferencing equipment to converse.

**Note:** Keep in mind that you may have several physically distant sites that each consist of a single group that shares the same physical room.

* Will individuals or groups share the results of their activities with others?
* Create a contact list for each location. Use name tents so participants learn the names of their classmates regardless of location. Make sure the name tents are readable from all locations.
* If you have several remote locations, select a moderator at each location to submit questions. A moderator at your location can alert you to a question that comes up so you can give time to that remote group of participants. The moderator role should be rotated among participants so one participant doesn’t become the “gatekeeper” for his or her group.

## Plan Your Interactive Activities

Interactions during the session may be participant-to-participant, participant-to-instructor, participant-to-group, participant-to-materials, group-to-group, or group-to-instructor. Interactions may be local, remote, or a combination of local and remote. The following activities can foster interaction in during a videoconference:

* Polls
* Projects
* Demonstrations
* Discussions and debates
* Experiments and investigations
* Skits
* Role-plays
* Presentations
* Brainstorming
* Story boards, organizational charts, or outlines
* Games

See also Appendix F for additional suggestions on fostering interaction.

### Interactive Activities Guidelines

* Keep the interactions simple.
* Send any needed materials to all participants in advance of the videoconference session.
* Prior to the live session, give participants involved in a demonstration, experiment, or presentations a chance to practice their activities while using the videoconferencing equipment.

## Distributing Materials Prior to the Live Session

As in any good meeting practice, send relevant materials to the participants well in advance of the live session. Some systems allow you to post materials inside the session; if this is available do this as well. Participants giving presentations should also prepare their materials in advance the way instructors do, sending handouts and presentations to all locations ahead of time.

Send a videoconferencing etiquette summary (see Appendix E for an example), to your participants.

## Backup Plan

Here are some questions to ask yourself when creating your backup plan in case the equipment fails or malfunctions:

* Is the problem with the system or with something specific to the room? Is there another room I can use?
* Can I use another videoconferencing system?
* Can I use the telephone?
* Can I use an online chat room?
* How can I ensure participants have access to the needed materials in place of the session?

As part of your backup plan, consider campus closings due to weather or other reasons. If the broadcast site goes down or is unavailable, then you need to think about the above questions. However, if only one of the receiving sites is down the class can still occur as scheduled. In this case, you should consider recording the session and emailing the recording link to the participants who could not attend the live session due to their site’s closing.

# Just Prior to the Session

* Appropriate clothing is important.
	+ Solid colors are best. Stripes and patterns may cause poor video camera performance.
	+ Avoid wearing shirts with words written on them. Words can be distracting to the participants.
	+ Do not wear jewelry that reflects light or makes noise, such as bangles or loose chains.
* Reduce environmental noise. Turn off fans, close windows and doors, mute cell phones, lower volume on office telephones and computer alert sounds for incoming mail and instant messages. Microphones can intensify these normal sounds.
* If you are using a computer to run the videoconferencing session:
	+ Reboot the system at least several hours before the session.
	+ Turn off all unnecessary programs to save bandwidth and to reduce the chance of a system crash.
	+ Check your microphone and speakers/headset to make sure they are operating properly.
	+ If possible, wear a miked headset instead of using external mikes and speakers to avoid audio feedback
* Play some music prior to the start of the session to let participants know that the audio is working and to set a relaxed mood.
* If appropriate, have participants introduce themselves and/or their sites and locations.
* If you are using a room-based system:
	+ Visit the room where you will be conducting the session. Note the areas of the room where you will be teaching to make sure that the camera is set to view those areas. If your camera supports presets and you have not yet set them, now is the time to do so.
	+ Try to show the entire room so remote participants have an idea of the size and layout of the local participants’ room.
	+ Note the microphone locations in the room so you can adjust participant placement and microphone use appropriately.

# During the Session

* Allow time for introductions and introduce people that may not appear on camera.
* Have the camera pan around the room (if possible) to capture any off-camera participants when they are speaking.

## Presentation Tips

* Carefully choose where you will stand or sit. If the camera is to focus on you or a podium, then you need to be within the camera’s viewing range most of the time. If you walk around frequently, the camera will show an empty space most of the time.
* Some instructors choose to sit in the audience with the participants to encourage more participation. This also allows participants at remote sites to see the local participants most of the time.
* Speak slowly and clearly, in a strong voice.
* Don't forget the remote sites - include them in your presentation, your discussions, your questions, etc.
* Call on participants by name.
* Know that most subtle facial expressions will either be lost or exaggerated.
* If you are using a room-based system:
	+ Maintain eye contact, alternating between making eye contact with the camera and with the local participants, if any.
	+ If your camera does not automatically follow you when you move, stay within the camera’s view.
	+ Use a document camera or electronic whiteboard for on-the-fly writing with a nice sized marker to make the writing as readable as possible for remote participants. Do not use a physical chalkboard or whiteboard.
* For on-screen presentations:
	+ Use large text.
	+ Use colors in the middle of the color spectrum. Avoid reds and purples – they may “bleed” on the remote end.
	+ Use solid color backgrounds.
	+ Use a high contrast between the foreground and background colors. For videoconferencing, a light (but not white) background with dark print works best. A purely white background will produce too much of a glare.
	+ Don’t just read your slides; invite participants to comment on what they read.

## Pacing

* It is a good idea to change presentation formats and activities several times during a single session. Some people cannot concentrate for more than six minutes at a time, so do not speak for more than ten minutes at a time. After you lecture, plan for an activity or time for interaction.
* Frequently encourage participant questions and interactions. In addition to voice communication, participants can also use text chat (if available) to indicate that they have a comment or question that they would like to be called on to express.
* When asking questions, call on a specific site or participant. Rotate the order in which sites or participants are called. This eliminates the problems of no one speaking or everyone speaking at once when a question is asked.
* Ask specific sites to respond to comments made by another site in order to enhance discussion.
* If someone responds via text chat, be sure to read the response aloud so all can hear it.

## Incorporating Questioning Strategies

There are key moments in any session that can benefit from the addition of a questioning strategy:

### Near the Beginning of the Session

* Determine participants’ existing knowledge of a topic.
* Determine participants’ learning goals/needs.
* Make connections to participants’ lives and experiences.

### During Transitions Between Topics Within the Session

* Check participants’ understanding.
* Elicit questions from participants.

### Near the End of the Session

* Help participants apply new information.
* Help participants retain and process knowledge.

Questioning is a form of engagement and will benefit all participants. Please see Appendix F for a complete listing of questioning types and strategies.

## Other Factors to Consider When Using Room-Based Systems

If you are using a room-based system to teach a class, you can help bridge the distance between yourself and the remote participants by traveling to and teaching from each remote location at least once during the course if at all possible. If you are able to do this, you should plan your first visit(s) to the remote location(s) close to the beginning of the course to give participants a chance to meet with you in person and discuss any concerns they have. Your other visits should be centered on critical points in the course, such as exam preparation or project presentations.

Likewise, see if your remote participants can come to your main location at least once during the course. You should encourage participants who are able to visit to schedule their first visits toward the beginning of the course. Subsequent visits can be planned around proctored exams or participant project presentations. If participants make the trip, give them time before or after class to meet with you and socialize with the other participants.

# After the Session

## Immediately After the Session

Don’t close the videoconference connection immediately. Allow for an informal "warm down" period during which any participant can interact with you in an informal setting. Let participants know prior to the end of the official session that you will be doing this.

## Assessment

You should assess your videoconferencing class with the goal to continually improve each of these areas:

* Learning outcomes.
* Participant satisfaction.
* Instructor effectiveness.
* Technology performance.

Send out a brief survey to your participants asking for feedback to incorporate into your next session. Please see Appendix C for a sample you may use.

# Case Study – A Class with Both Local and Distributed Participants

## Scenario

Part of your course includes a series of “roundtable discussions” about hot topics in your professional area. You conduct these roundtables first by presenting the topic via a PowerPoint presentation and then by encouraging open discussion. Your department head wants to expand your course to reach remote students, using more than a telephone conference.

## Solution

Your department created a Zoom meeting space to host your videoconferencing sessions. Your department head will supply a moderator for several initial sessions with the expectation that you will eventually be able to run these sessions on your own.

You modify your normal session by utilizing this guide as needed, especially concentrating on including relevant activities list in Appendix F – Participant Engagement Questioning Type and Strategies.

## Before the First Session

As you have never used Zoom before, you decide to attend an IT Training Services session (see <http://ittraining.psu.edu/workshops/>) on Zoom.

After meeting with your local technology support staff, you decide to use two wireless microphones during your class sessions. One is for you and the other is for the moderator. You will be presenting the content. The moderator will monitor the Zoom chat area to field questions, reply if he or she can, and pose questions from remote participants to you and the local participants.

You decide that you will use the following: Camera and Voice, and Chat.

Two days before the start of the session you share electronically any materials that you will use during the course of the presentation, including a modified version of Appendix E – Participant Etiquette Guide Example and your PowerPoint presentation. This ensures that everyone has access to these materials. This is also part of your backup plan.

The rest of your backup plan is to encourage participants to place questions in a backup online forum to which you will respond should the live session fail.

Utilizing Appendix A – Videoconferencing Quick Tech Checklist, you do a dry run several days before the first session and work out all of the kinks in the technology. You move one camera and make a note to pull the blinds in the room so the remote participants’ views are not washed out due to excessive lighting.

## Just Prior to the Session

You utilize Appendix B – Videoconferencing Best Practices Checklist as a reminder of what you need to do. Your moderator utilizes Appendix D – Moderator Checklist as a reminder of what he or she needs to do. You dress in plain clothing. You double-check all the technology, close the window curtains, and ask the moderator to pan the camera around the room so remote participants have a feel for the local site. You play some soft background music. You ask everyone (local and remote) to introduce him or herself.

## During the Session

You ensure you are in the camera’s view at all times and make sure you glance into the camera periodically. You speak slowly and in a clear voice. You make sure you call on participants by name.

Since you have a microphone, you can assume that everyone in the room and at the distributed locations can hear you. If a question or comment comes from a participant at the live site, the moderator will restate the question to ensure remote participants can hear it, and you will then answer the question.

During the presentation, you may want to periodically pose questions to participants, in order to tailor or focus a part of the presentation. By using various the Zoom chat area, remote participants can reply to certain questions to give you an idea of what conceptions or misconceptions they may have.

During the open discussion part of the session, you ensure communication between local and remote participants is working well.

## After the Session

At the conclusion of the presentation, you use the poll pod(s) to determine future topics, future dates, or any other information that relates to this session or future sessions. You remind everyone that this is a good time to talk to you one-on-one. You send out a modified version of Appendix C – Videoconferencing Survey to all participants after all participants are gone.

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Ann H. Taylor provided us with many relevant documents she has used to teach videoconferencing skills at Penn State.

Brett Bixler coordinated a major rewrite with many additions in 2014, and updated the document again to its current version in 2017.

# Online Resources

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Appendix A: Videoconferencing Quick Tech Checklist

## Before the Session

* Meet with your technical support staff.
* Know your equipment and systems.
* Do a dry run at least 24 hours before the live session.
* Ensure remote participants can access and utilize the equipment.
* Develop and send your videoconferencing participant guidelines to the participants.
* Have a backup plan in case the technology fails.
* Arrive 15-20 minutes before the session to test the equipment.

## Just Prior to the Session

* Make sure the camera is set to view you. Set presets if available.
* Note microphone locations.
* Reduce environmental noise.
* Close all unnecessary computer programs.
* Have the camera pan around the room (if possible).

## During The Session

* Account for audio delays between sites.
* Stay within the camera’s view.
* Ensure on-screen presentations:
	+ Use large text.
	+ Use colors in the middle of the color spectrum.
	+ Use solid color backgrounds.
	+ Use a high contrast between the front and background colors.

Appendix B: Videoconferencing Best Practices Checklist

## Before the Session

* Choose the “best fit” technology for your needs and instructional goals.
* Prepare and distribute all relevant materials to your participants.
* Ensure remote participants can access and utilize the equipment.

## Just Prior to the Session

* Dress in plain clothing.
* Have participants introduce themselves.
* Play some music.

## During The Session

* Speak slowly and clearly in a strong voice.
* Build in interactions. Include remote sites in conversation and activities.
* Maintain eye contact both with the camera and with the local participants.
* Call on participants by name.
* Change presentation formats and activities several times.
* Assign a site spokesperson and rotate this responsibility.
* Read text responses aloud.
* Don’t just read your slides!

## After the Session

* Allow for an informal "warm down" period.
* Assess learning outcomes, participant satisfaction, instructor effectiveness, and the performance of the technology.

Appendix C: Videoconferencing Survey

Use this as a template for designing and delivering your own post-session survey to participants.

Please rate the following on a scale of 1 to 5, where 1 = Poor and 5 = Excellent.

1. How useful were the pre-session documents, handouts, etc.?
2. How well was the content delivered by the instructor?
3. How well did the instructor address both local and remote participant questions, etc.?
4. How well did the instructor respond to participant questions?
5. Were participant questions and interactions encouraged?
6. Rate the quality of the participant activities.
7. How well did the video work?
8. How well did the audio work?
9. How technically effective were the presentation tools?

Please briefly answer the following.

* What was the best part of the videoconference?
* What was the worst part of the videoconference?
* Do you have any addition comments you would like to share about the session?

Appendix D: Moderator Checklist

Moderators can use and modify this checklist to ensure an optimal videoconferencing experience. If you are an instructor without a moderator, use this checklist in conjunction with the Best Practices checklist.

## Before the Session

* Confirm you are in the session as a moderator or host. (AC specific)
* Check any backup plans and ensure they are ready to use.

## Just Prior to the Session

* Arrive 20-30 minutes early.
* Open the session and ensure it is working properly.
* Ensure remote participants can access and utilize the equipment.

## During The Session

* If appropriate, start recording the session.
* Monitor any text chats and inform the instructor as appropriate. Read text responses aloud if appropriate.
* Monitor any visible signals (like a raised hand) and inform the instructor as appropriate.
* Periodically check with remote participants to ensure they can hear and see the local site.
* As appropriate, ensure the presenter is in the camera’s view.

## After the Session

* Stop any recordings.
* If there are any session assessments, remind all participants to complete them.

Appendix E: Participant Etiquette Guide Example

Provide the following information to participants prior to the videoconference:

* Be on time.
* Turn off cell phones. Cell phone signals may affect the conference audio.
* (Virtually) raise your hand to talk. Do not interrupt others when they are talking.
* Speak naturally in the direction of the microphone.
* Avoid coughing into microphones, drumming fingers, or carrying on side conversations. Remember that microphones are very sensitive and may pick up even quiet conversation or comments.
* Mute you microphone when not speaking if possible.
* Identify yourself when speaking for the first time.
* Pause occasionally so others may make comments.

Appendix F: Participant Engagement Questioning Types and Strategies

## Question Purposes

There are seven purposes for questioning:

1. Determine learners’ existing knowledge of a topic.
2. Determine learning goals and specific needs.
3. Make connections to learners’ lives and experiences.
4. Elicit questions from learners.
5. Check understanding.
6. Help learners apply new information.
7. Help learners retain and process knowledge.

## Question Types

### Closed Questions

Closed questions can be answered with a simple word or short phrase and are often designed for yes or no responses; they may be used to gather simple information from learners, to quickly reinforce key points and to quickly check learner attention or knowledge.

Examples of closed questions:

* Have you done this before?
* Do you agree with that statement?
* Which web browser are you using?

### Open Questions

Open questions are designed for more detailed responses; they may be used to solicit learner opinions, encourage learner reflection, and engage learners at a deeper level of understanding.

Examples of open questions:

* How do you keep focused on your work?
* Why is that idea so important?
* What would you do differently in this situation?

### Recall Questions

Recall questions ask learners to respond with a factual statement; they may be used to check whether respondents remember key points, to determine learner’s exposure to basic factual principles, and more.

Examples of recall questions:

* What was the last point I made about using Firefox?
* What is the purpose of the home button?
* Where is the email tab located?

### Opinion Questions

Opinion questions ask learners to respond with their individual thoughts or to analyze a given situation in order to form a judgment; they may be used to gather information about learner attitudes, to assess learners’ decision-making processes, to engage learner’s emotions, and more.

Examples of opinion questions:

* Was the War of 1812 politically or financially motivated?
* Of the three ways to complete this task, which do you think is the best or most efficient?

## Use of Tools for Questioning

**Your videoconferencing system may include interaction tools. Below are several types of tools that can be used for questioning in a session and sample situations for which they can be used:**

**Polls** (Multiple Choice, Multiple Answer, or Short Answer): Asking learners real-time survey questions in a variety of forms; allowing learners to answer anonymously; quickly displaying answers or response statistics to learners.

**Chat**: Asking questions that require brief or direct answers; eliciting questions from learners; keeping a record of important questions that can be referred to at a later time.

**Notes**: Typing specific questions in advance in order to display them to learners during a session (pods can be dragged from the presenter space to the main screen so learners can see the text of a question as they type their answers in the chat pod); avoiding the need to repeat a verbal question multiple times.

**Whiteboards**: Getting learners to ask or answer questions in a collaborative space; collecting questions or responses that you will return to later in the session; asking multi-part questions.

## Question Examples

### Example 1 — Determine Learners’ Existing Knowledge of a Topic

**Closed Question**

Are you familiar with X?

**Open Question**

How have you used X or something similar in the past?

**Multiple Choice Poll**

How many times have you used X in the past month? (Choose one.)

1. 0-5 times
2. 6-10 times
3. More than 10 times

**Multiple Answer Poll**

Which of the following tools are you most familiar with? (Select all that apply.)

X

Y

Z

**Short Answer Poll**

Name the most important thing you need or want to understand by the end of this session.

### Example 2 — Determine Participants’ Learning Goals and/or Specific Needs

**Closed Question**

Would you like to learn more about A, B, or C during this session?

**Open Question**

What are you interested in learning how to do during this session?

**Multiple Choice Poll**

Which of the objectives I just read seems most relevant to your specific purpose for attending this session?

1. Objective 1
2. Objective 2
3. Objective 3

**Multiple Answer Poll**

Which of the following options best represents your reason for signing up for this session? (Choose all that apply.)

X

Y

Z

**Short Answer Poll**

Type the most important thing you need or want to understand by the end of this session.

**Whiteboard**

In the center column of the whiteboard, please write one specific skill you would like to gain from today’s session.

### Example 3 — Make Connections to Learners’ Real Lives and Experiences

**Closed Question**

Do you think you would use X in your workplace?

**Open Question**

How would you use X in your workplace? What do you think are the benefits of using X instead of Y for [specific work-related or classroom-related purpose]?

**Multiple Choice Poll**

Which of the use cases I just discussed is most similar to how you would use X in your own work?

1. A
2. B
3. Both
4. Neither

**Multiple Answer Poll**

Which of the following common workplace problems could be solved with the use of X? (choose all that apply)

X

Y

Z

**Short Answer Poll**

What ways have you seen others use X?

**Chat Pod Question**

Do you have any questions about how or why to use X in a classroom environment? If so, please type them in the chat pod now.

### Example 4 — Elicit Questions from Learners

**Closed Question**

Would you like me to review any information about the three items I just discussed (X, Y, or Z)?

**Open Question**

What is one question you still have about when to use X instead of Y?

**Multiple Choice Poll**

I anticipate that you might have this question\_\_\_; do you want me to review the answer briefly before we move on?

1. I’m ready to move on.
2. I would like to review this briefly before moving on.

**Multiple Answer Poll**

Which of the following actions would you like me to briefly review before we move on:

X

Y

Z

**Short Answer Poll**

What is one question you have about using X for [specific purpose]?

**Chat Pod Question**

Please take the next 60 seconds to think about the topics we’ve covered so far and type any questions you have about those items before we move on.

### Example 5 — Check Understanding

**Closed Question**

Which is the best way to do X…is it Y or Z?

**Open Question**

What is one way you can accomplish X using this tool?

**Multiple Choice Poll**

Which of the following is not a real application of X tool?

1. X
2. Y
3. Z

**Multiple Answer Poll**

Please check the boxes next to the actions you now feel comfortable completing using X tool.

A

B

C

D

**Short Answer Poll**

Which of the three ways I said you could do X seems most logical to you?

**Chat Pod Question**

Scenario: I’ve accidently deleted my meeting notes! How can I retrieve them again? Please type your answer in the chat pod.

### Example 6 — Help Learners Apply New Information

**Closed Question**

Which of the following seems like a realistic way to use X based on what we’ve discussed? (X, Y, or Z)

**Open Question**

I mentioned the ability to use X for several purposes, but what other ways do you think people could use X?

**Multiple Choice Poll**

Which of the following groups do you think would benefit most from using X?

1. Students
2. Faculty
3. Staff
4. Other

**Multiple Answer Poll**

Choose all of the accurate statements about X from the options below:

A

B

C

D

**Short Answer Poll**

What do you think would happen if I did X at this stage instead of Y?

**Chat Pod Question**

Can you predict any dangers if I used X without checking Y first?

**Whiteboard**

The features of tool X are listed in the first column; please type some features of tool Y in the second column to help compare and contrast the two.

### Example 7 — Help Learners Retain and Process Knowledge

**Closed Question**

Do you feel that you understand more about using X after attending this session?

**Open Question**

What is one strategy you learned in this session that you think you will actually use?

**Multiple Answer Poll**

Which of the items listed below are the three actual uses for X that we have discussed so far?

A

B

C

D

**Short Answer Poll**

What is one important distinction you can make between X and Y?

**Chat Pod Question**

What best practice have you heard that you think you will take with you after this session?

**Whiteboard**

What was the most important or interesting tip you learned from this session?