Video Conferencing in Academic Contexts
Design and Facilitation Considerations

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Introduction

Video conferencing has entered the mainstream. Anyone with an internet-connected device (cell phone, tablet, laptop, desktop computer) already has the technical hardware to host and/or attend a video conference. In academic contexts, video conferencing can be used for both one-to-many delivery and seminar-style sessions. One-to-many delivery can also include lectures from instructors or guest speakers, panels, interviews, and Q&As. Seminar-style video conferences are similar to their on-ground counterparts in that they give students the opportunity to guide the conversation and interact with one another.

Though video conferencing as a delivery format enjoys growing popularity, it is still new enough that instructors are uncertain of the many factors that contribute to a successful offering. In this guide, we will present effective approaches for planning and executing video conferences in academic contexts.

Engaging Students in Video Conferences

One of the misperceptions that plagues online education is the assumption of isolation caused by a lack of in-person interaction that on-ground courses enjoy. While it’s true that students enrolled in online courses may not have the opportunity to meet with one another in person, video conferencing provides an excellent mechanism for a wide range of technology-mediated interaction.

In any class (virtual or online), there is a limit to how much interaction you can expect when a class size exceeds a certain size. Where that limit is depends on a number of factors, including subject matter, motivations of the students, and goals of a particular activity. Regardless, once you exceed that number you then must rely on organizing the class into multiple smaller groups. In the physical classroom, this means students huddle with one another around a table or circle their chairs. For the online classroom,
the leading video conferencing platforms (e.g., Zoom, Connect, BlueJeans) have figured out how to make this virtual huddle happen through break-out functionality.¹

Student-centered activities make for a truly engaging learning experience for students when executed via video conferencing platforms. And a balance of large group and small group activity creates opportunities for students to test theories, share context and synthesize ideas by engaging with one another while the instructor stands to the side. Activities in video conferences that lend themselves well to fostering student-to-student (S2S) interaction include presentations, role-plays, case studies, and debates. This list should be familiar to anyone who has tried to infuse on-ground courses with more student-centered learning, and the activities are equally suited for fully online environments where students meet in video conferences and/or in their own virtual meet-ups.

Regardless of the type of activity you choose to implement in an online course, pay attention to these tips and tricks when planning and facilitating a video conference session.

- **Create a detailed lesson plan.** Start with the end in mind, and be clear on the goal of the session. Then list out the sequence of events, along with responsibilities assigned to you (or a TA) as the facilitator and the students. Avoid the temptation to wing it in virtual sessions.

- **Subscribe to the notion that ‘less is more’.** Avoid the temptation to cram a 45-minute video conference with an activity that would require 45 minutes in an on-ground environment. Everything takes more time in a virtual environment, and anticipating the inevitable pauses and hiccups won’t leave you (and students) scrambling at the end of the session to synthesize thoughts and complete work.

- **Communicate pre-work and expectations in advance.** Give students advance notice of what to expect in the session. Remind them of pre-work that they should complete in advance, provide an overview of how the time will be divided, and define any required outputs and/or success criteria.

- **Help students familiarize themselves with the medium.** Because active engagement is new to many students in virtual environments, consider dedicating a portion of your first session to a hands-on exploration of the video conferencing medium. Ask students to “raise” their hand or type an introduction into the chat window. Give students the opportunity to share their screen with the class or draw on the whiteboard. Split the class into small groups and give them an easy task to complete in five minutes; meanwhile, you can use the time to move virtually from one room to the next so they see that they’re not alone.

- **Scaffold an activity and provide examples.** When a particular activity consists of multiple steps, document them in detail and share them with those who are expected to execute on those steps. If students, working individually or in groups, are expected to produce an artifact as

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¹ For help on how to create break-out rooms in Zoom, see this [how-to](#) from the Innovative Learning Technology Initiative (ILTI) at the University of California, Office of the President (UCOP).
part of an activity, consider sharing with them an example of what that looks like; barring that, at least provide a rubric against which the quality, accuracy and/or creativity of the output will be evaluated.

- **Be intentional when you assign students to groups.** Online courses often attract students from diverse backgrounds and geographic areas. When the goals of a particular activity would benefit from such diversity, organize your students that take advantage of it.

### Technical and Environmental Set-Up

To facilitate a video conference, you should ensure that you have an account on the platform that your institution supports. The level of account will vary based on the selected platform and the agreement that your institution has in place with the vendor; however, at a minimum you should have full Presenter rights. If you are new to video conferencing and/or the video conferencing platform, work with your IT department to receive the technical training they provide to ensure that you a fluent with the platform’s functionality. Following are audio-visual and environmental factors that can impact the quality of your transmission as well as the learning experience for your students.

#### Audio-Visual

The audio-visual hardware you select has a big impact on the learning experience for your students. While all internet-connected devices have microphones, speakers and cameras, the quality of these built-in tools doesn’t match that of peripherals that plug into your device. Following are some recommendations on how to improve the audio-visual experience in your video conferences, for both yourself and your students.

**Audio**

For receiving and transmitting audio, the best option is a headset with integrated headphones and microphone. Also acceptable is separate headphones (in-ear, over-the-ear) and microphone (lavalier, desktop). Avoid using the audio speakers on your device, as doing so can create troublesome audio feedback with the microphone; similarly, avoid using the built-in microphone, which tends to pick up environmental sound that is often distracting for other participants.

**Video**

While many built-in cameras deliver adequate video quality, external cameras (webcams) enable you to provide a better picture. Webcams are typically faster (measured in frames per second) than internal cameras and include features that deliver clearer visuals through motion detection, auto-focus, and face-tracking technology, and adjustable exposure settings. Webcams come with tripods or mounting hardware that let you position them in your natural line of site, and many will either swivel or provide wide-angle views so that you can share more.

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2 ILTI has prepared a [quick-start guide](#) for instructors to help them get up and running on Zoom.
Environment

The two most important considerations in selecting the physical space that you occupy for your video conferences are sound and light. Your space should be isolated from other people whose voices could be picked up by your microphone. Also, pay attention to background noises, as traffic from open windows, doors shutting in the background, as well as fans and other machines can be a distraction to you and others.

To ensure that you can be seen, avoid sitting in spaces where light is produced from behind you and projected toward the camera, be it from natural light (windows) or lamps, as this will make everything difficult to see. Soft, indirect light that is produced from behind the camera is best.

Position the camera at eye level and far enough away from your face that the picture includes your head and shoulders framed by background on three sides. If you are using the camera on a laptop, this may require you to raise the laptop so that it is resting on a stack of books. The quality of the visual you present is also influenced by what is behind you. Avoid backgrounds that appear cluttered and/or not professional. A (not-too-dark) monochrome wall is fine, though a carefully placed plant, piece of art or bookshelf can provide depth of field and context without distracting from the meeting itself.

Preparing Your Students for Video Conferencing

FaceTime. WhatsApp. Messenger. Skype. SnapChat. Students are no strangers to video chats; however, not all of today’s accepted video-chat protocols and social norms are appropriate for academic settings. As the instructor of a course that plans to use video conferencing as a communication mechanism, it is your responsibility to set expectations, model good behavior and monitor usage consistently throughout the term.

To set expectations with students, draft a list of guidelines related to participation in video conferences. Share this with them by integrating guidelines into the course syllabus, emailing guidelines to them prior to start of term and/or posting guidelines to the course web site. If you offer a pre-term syllabus quiz, consider adding a question or two related to those guidelines. Plan to review expectations during the first video conference. Depending on the class size and/or composition of the student cohort, it may be appropriate to ask students to draft their own expectations for the term.

When setting expectations with students, share with them how video conferencing aligns with course goals and intended student outcomes. Describe the nature of the activities that they will be expected to participate in, how they will be asked to interact with peers, and how they will be evaluated. Because these are time-bound events, be sure that all students know the schedule at the start of the term. You should also provide students with a quick-start guide so that they know what to do prior to the first (and every) video conference that they attend.³

³ ILTI has created a quick-start guide for students to help them prepare for live virtual classroom sessions on Zoom.
Below is a list of expectations you may want to address; in doing so you should make sure that your expectations are in support of the stated learning outcomes for the session:

- **Video camera**: Are students expected to keep their cameras on? When is it appropriate to turn them off?
- **Audio controls**: Should students remain muted when not speaking?
- **Asking questions**: How do students indicate to the instructor or other students that they have a question?
- **Chat**: How should the chat function in the video conference platform be used?
- **Screen sharing**: When is it appropriate for students to share screens or documents with the class?
- **Non-compliance**: How will you as the instructor handle situations in which one or more students do not meet your stated expectations for behavior in the room?

The First Video Conference of the Term

The first time a student cohort meets in a video conference is a critical moment for you as the instructor, as it lets you set the tone for these live meetings. The goal for a first meeting should focus more on setting the foundation for a dynamic and respectful virtual community than on achieving particular content-related milestones. Keep in mind that students will look to you for cues on behavior, so do your best to model what you expect from them in the first -- and every -- video conference.

Following are some appropriate first-meeting activities:

- **Expectations**: Review expectations for participation in the video conference aspect of the course and discuss what they mean to you.
- **Technical**: Make sure that all participants can both hear and see others (and be heard and seen).
- **Platform**: Give students an opportunity to experiment with the tools and feature included in the platform’s interface (i.e., hand-raising, posting to chats, screen-sharing; break-out groups).
- **Introductions**: Lead an ice-breaker in which students have the opportunity to introduce themselves to the class.

Facilitator Considerations

Whether your video conference is designed for a one-to-many delivery, a seminar-style conversation, or a combination of the two, you and your participants will benefit from a set of proven practices that veteran presenters and facilitators rely on.

- **Dress the part**: Solid colors work best, in neutral or natural hues. Avoid bright and contrasting colors as well as bold patterns. Avoid the temptation to dress more casually because you’re virtual; dress as you would for the physical classroom.
- **Distribute materials in advance**: Prior to a scheduled video conference, send students documents and/or links that they will need to access in the conference so that they can prepare for the live session.
● **Seed the message board.** Welcome students via chat and remind them of how/when they can use chat in the conference. You may also want to share the agenda and provide links to documents by posting via chat. You can also post a thought question to jump-start the sessions. All of these ideas can help students get into the appropriate frame of mind.

● **Arrive early.** Turn on your camera and greet students as they log in. Engage students in casual conversation, both to welcome them to the session and to ensure that their hardware is functional. This helps establish rapport.

● **Review etiquette.** It’s never a bad idea to quickly review expectations related to etiquette and behavior at the start of any session. This helps students what you expect of them.

● **Provide an overview.** Open the video conference with an overview of the session’s activities, sequence and goals. This helps orient students to the trajectory of the session.

● **Address your audience.** Speak to your webcam and not to the video conference interface displayed on your screen. This will create the feel of eye contact for your audience, to the extent that it’s possible in a virtual environment.

● **Pay attention to body movements.** Even with the highest quality webcams, internet speeds may introduce lags in the transmission and/or reception of video. To offset these limitations, avoid moving your body too quickly; otherwise, you may come across as pixelated, blurry or frozen.

● **Embrace pauses.** After asking a question, or when transitioning from one topic to the next, let the video conference absorb the silence. It marks a transition and gives everyone in the conference time to reflect.

● **Engage the entire audience.** Body language is more difficult to read in a video conference, so pay attention to those who appear ready to say something and pull them into the conversation. If necessary, take a moment to remind all participants not to talk over one another.