

# TEACHING IN VIRTUAL MODALITIES

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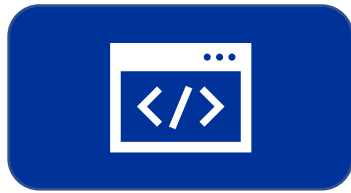
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## Introduction

Though the COVID-19 pandemic has motivated a transition to virtual instruction, this trend has been increasing in higher education for some time. As distance learning provides access to instruction to a greater number of individuals, particularly those with increased time constraints, more and more institutions have embraced this transition and the advantages it brings. This is not to say, however, that the shift to virtual instruction does not have its challenges. Both veteran and novice instructors alike will attest that virtual instruction often fails to cultivate the personal connection that being in the classroom more easily provides. In addition, many struggle to learn new technologies or simply overlook the many affordances that platforms like Zoom and PowerPoint can offer. As such, it is necessary to take a more pointed look at the best practices in virtual instruction so that we can most effectively teach in these settings.

### In this Guide

This guide is comprised of three sections that address aspects of virtual instruction such as (a) layout, logistics, and design, (b) promoting communication, and (c) principles of e-learning theory. By reviewing these ideas and attempting to incorporate them into your instruction, you can take a positive first step toward ensuring that your instruction is highly effective when teaching online.



## Part I: Layout, Logistics, and Design

### Including UMMS Branding:

- [Follow this link to access UMMS Office of Communications Brand Toolkit website.](#)
- This includes: [The UMMS Style Guide](#), [PowerPoint templates](#), an [icon library](#) to use in your presentations, and a [photo/video library](#) for stock images.

### Focusing on Simplicity

- Use **templates**. Microsoft PowerPoint offers a wide array of templates that will help keep the theme of your presentation consistent. It is suggested, however, that you choose simple templates without ornate graphics as these tend to distract from the content of your presentation. In addition, the Office of Communications has created several UMMS branded PPT templates should your presentation require a more formal look. The link for these can be found above.
- Create a slide deck and save it as a **template** on your computer. This will save you from having to re-create the wheel each time that you are tasked with preparing a presentation.
- **Limit words**. As discussed below in several of the principles of e-learning theory, word-heavy slides are cumbersome and distracting. If possible, use a one to three-word summary of your main idea and talk participants through the concepts.

### Sharing Your Screen in Presenter View

Zoom screen share contains an option that allows you to share just a portion of your screen. In doing so, you can capitalize on PowerPoint's **presenter view** to have access to your notes as well as tools such as the laser pointer and annotation tools. Instructions on how to access this feature with accompanying visuals can be found in [Appendix A](#) (click the link to access this appendix directly).

### Providing a Roadmap

A **roadmap** is a simple tool that can be used to orient the participants to the various segments of your talk as well as the progress that you're making through each section. You can include a roadmap in several ways which are demonstrated below. It is suggested that you create a PowerPoint template containing a roadmap so that you can simply copy and paste it into each new presentation that you create. Examples of easy-to-follow roadmaps can be found in [Appendix B](#) (click the link to access this appendix directly).

## Capitalize on Zoom's Communication Tools

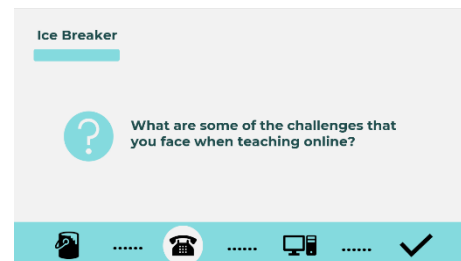
Zoom has several communication tools which help facilitate communication in virtual instruction. You may wish to utilize the **chat feature** when soliciting responses from participants, or ask them to provide a reaction such as a "thumbs up" or "thumbs down." Doing so will engage participants in your instruction multimodally.

## Capitalize on Multimodality

The majority of PowerPoint presentations rely on three features: on-screen text and/or images and presenter audio via live or pre-recorded 'talk.' Multimodality in this sense suggests that we can use other visuals such as **icons** to add an additional dimension to our presentations. In doing so, we may **highlight** or **indicate** important information or **signal** to our participants that we are seeking their participation. In the screenshot below, you'll see how a simple question mark icon can be used to let participants know that you are asking them a question and that you'd like them to respond. Including multimodality in this way heightens task awareness on behalf of the participants.



*At the beginning of a talk, you may wish to indicate to your learners that when the question mark symbol appears on the screen, that means that you are seeking their participation to respond to a question.*



*Then, when the symbol appears, learners will be more attuned to the fact that you are seeking their participation at that time.*

## Learn the Tools! (PPT, Zoom, screen capture, etc.)

Zoom has created several useful PDF documents which guide users through the many tools that the platform has to offer. Familiarizing yourself with these features will help you to take advantage of them without running into unnecessary trouble along the way.

- [Tips & Tricks: Teachers Educating through Zoom](#)
- [Comprehensive Guide to Educating through Zoom](#)

## Practice with the Tools!

It is very simple to set up a 'dummy' Zoom meeting in which you can familiarize yourself with and practice using the various features that Zoom has to offer. If you have a UMMS Zoom account, you already have access to a feature called "**Personal Room.**" By opening that room, you'll have a space to practice in an environment free of any potential consequences.

### **Show up early and anticipate issues**

As we all know, it is better to be overprepared than underprepared. In order to do so, we should always anticipate that an issue may arise related to technology that may hinder our or someone else's presentation. In these situations, it's important to have a backup plan. This could be as simple as having a printed version of your lecture notes in case you have to give your talk without the aid of a PowerPoint presentation. It is also recommended that you show up early to your talk in case the link that you've been given does not work or you have not been made co-host of the meeting. Give yourself plenty of time to contact those individuals in charge of the meeting so that you waste valuable lecture time.

## Part II: Communication



It is no secret that online instruction can be isolating. The physical presence of the classroom is something that simply cannot be faithfully re-created when teaching online, though there are several things that we can do to foster cognitive, social, and teaching presence (Garrison et al., 1999). At the center of this discussion is the notion of communication and its importance in building an integrated community of learners.

As McGee and Reis (2012) have suggested, “online discussions are most successful when they build on the affordances of the medium and are truly discursive, rather than completion-oriented” (p. 13). The following suggestions will allow us to successfully build on the affordances of tools such as Zoom so that we may cultivate the necessary interaction for meaning making to occur.

### Communicate Content-Related Expectations

Reaching out to participants prior to instruction helps build interest in your presentation. You may wish to share your particular goals and objectives for the talk, or engage learners by asking questions that stimulate prior knowledge. In addition, you may also wish to seek input prior to instruction to help guide your preparation. For example, you may ask *what are some issues that you’ve experienced in this area?* Doing so will give learners a chance to communicate their needs with you so that they may be better addressed during your talk.

### Expectations for Participation

It is important to clearly communicate your expectations for participation at the beginning of a talk. You may wish to alert participants as to the various ways in which they can respond when you pose a question (i.e., *“unmute yourself and respond verbally or include a response in the chat”*). You can also provide a ‘heads up’ as to what type of participation will be required (i.e., *“at the end of today’s talk, I’ll ask you to briefly discuss topic X in a small breakout session with your peers”*).

Equally important, especially when working with a group of unknown individuals, you may ask them to identify themselves when responding so that you become aware of their preferred manner of address. This allows us to be equitable and inclusive in our forms of address.

### Maintaining Attentiveness and Engagement

To be sure, a lack of teacher presence may lead to inattentiveness. The following suggestions will help cultivate this presence when instructing online.

- Create multiple **opportunities for interaction** such as ice breakers, polls, reflection questions, and breakout sessions. This will help to establish a culture of engagement/participation.

- It is also important to consider how we can **break learning into smaller chunks**. In doing so, we can capitalize on transitions to re-gain attention and engagement on behalf of our learners.
- Of course, when learners feel that the information that they are learning is relevant to their careers, they will be more inclined to pay attention. As educators, we can capitalize on this by stating these connections directly. We all have plenty of experience that will help us draw strong connections between the lecture material and real-world application.

### **Follow up with Learners Post-Instruction**

Following up with learners (or other conference attendees) is a simple way of building rapport and encouraging participating/engagement in future presentations. Your follow up can include things such as:

- Provide **links** to content that you referenced in your talk
- **Reinforce key information** from the presentation
- Ask **thought-provoking questions** to engage learners in follow-up reflection
- **Show appreciation!** If a participant showed enthusiasm and engagement in your talk, commend them on these efforts! This will ensure that these behaviors continue.

### **Seek Feedback and Set Goals for Implementation**

- Incorporate that feedback into future iterations of instruction
- Set goals one at a time, then reflect on their outcomes



## Part III: Principles of E-Learning Theory

E-Learning Theory proposes and discusses empirically studied principles of effective instruction and curriculum design using multimedia and instructional technology. By focusing on the principles of E-Learning Theory as we develop and design our instructional materials, we can work to minimize extraneous cognitive load, and help our learners to remain focused on important concepts and engaged in our discussions.



**Multimedia principle:** *“Using any two out of the combination of audio, visuals, and text promote deeper learning than using just one or all three.”*

The multimedia principle suggests that too much or too little representation of content can hinder learning. It is important to pay attention to the type and quantity of elements that we include in our slides. If you find that you are including audio, visuals, and text in your slide design, it may be worthwhile to take a moment and analyze the importance and effectiveness of each. Most likely, you’ll be able to remove one element to reduce overall cognitive load.

**Modality principle:** *“Learning is more effective when visuals are accompanied by audio narration versus onscreen text.”*

Similar to the multimedia principle, the modality principle suggests that learners have a preference for audio narration over text, particularly if these are also accompanied by visuals. Instead of including abundant text or long quotations, we may wish to include a brief one-to-three word summary of the content and talk our learners through the ideas without reading directly from the screen.

**Coherence principle:** *“The less that learners know about the presentation content, the more they will be distracted by unrelated content.”*

Ultimately, the coherence principle suggests that it is important to remove as much superfluous information as possible, particularly when the learners have a limited understanding of the topic. This includes both material that is displayed on the screen as well as off-topic tangents or digressions that we may take during instruction.

**Segmenting principle:** *“More effective learning happens when learning is segmented into smaller chunks.”*

Segmenting learning into smaller chunks is a rather simple task. Say, for example, that your talk has three main objectives. Each of those objectives could represent one “section” or “segment” of the talk. You could easily remind learners of how that section

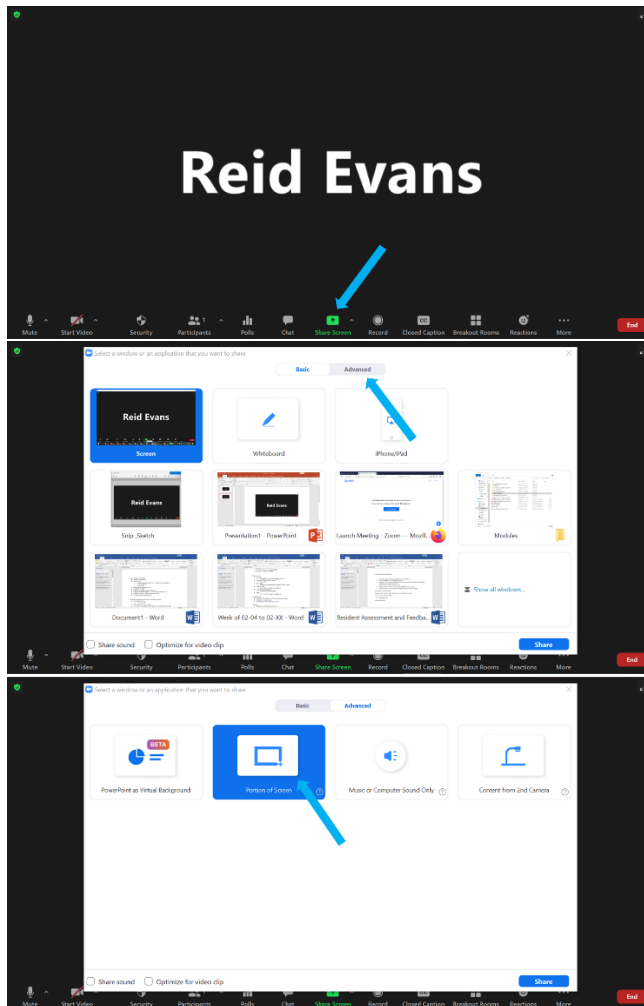
reflects the particular learning objective and even informally assess that objective at the conclusion of the section. In addition, signaling to your learners the progression of the talk in terms of its sections helps orient the learners to the material.

**Signaling principle:** *“Using arrows or circles, highlighting, and pausing in speech are all effective methods of signaling important aspects of the lesson.”*

Capitalizing on the tools available in PowerPoint and Zoom to draw learners’ attention to important aspects of your talk is an important practice. By “signaling” these aspects, you help to ensure that the learners are on task and are focused on the right material at the right time. Paying special attention to the prosody, or the patterns of stress and intonation in speech, is also important. It may be necessary for us to practice delivering our talks beforehand so that we can best make use of prosody during our instruction.

## Appendix A

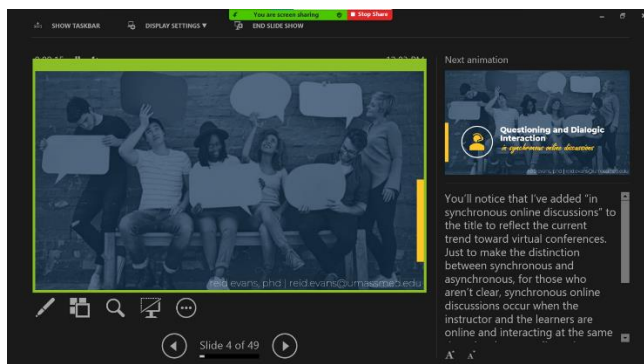
### Screen Sharing in Presenter Mode on Zoom



**Step 1.** Click on the “Share Screen” icon located on the Zoom tool bar.

**Step 2.** Click on the “Advanced” icon at the top of the page to access the advanced setting.

**Step 3.** Click on the option to share a “Portion of Screen.” This option is generally the second from the left.



**Step 3.** The green box that appears indicates the portion of the screen that you’re sharing. You may reposition the box by dragging it across the screen, or make it larger or smaller to suit your needs.

## Appendix B

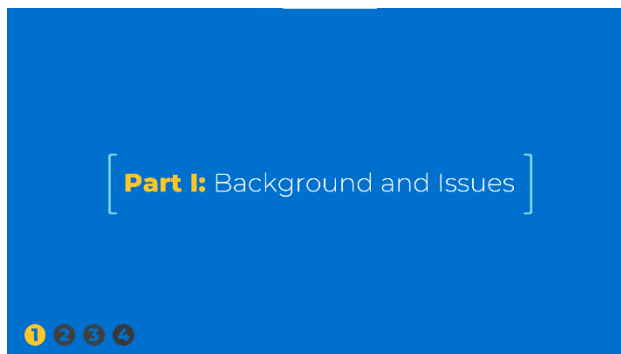
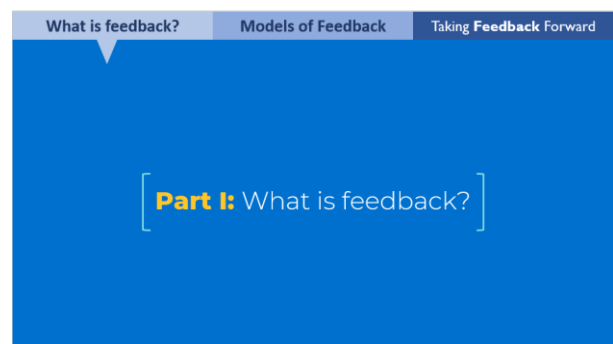
### Including Roadmaps in Your Presentations

A roadmap is a series of icons that can be displayed within a slide deck to give insight into the progress of the presentation. Such a roadmap, when aligned with the overview or objectives of your presentation, orients participants to the various sections or segments of your talk. Doing so helps keep participants focused and aware of the topic at hand. Below are some examples of how roadmap icons can be used in PowerPoint.



In the talk on **Teaching in Virtual Modalities** that accompanies this guide, the four icons shown at the bottom of the screen align with the four sections or segments of the talk. The white circle around the paint bucket, in this example, indicates that the talk is in the “layout, logistics, and design” phase. Moving the white circle as the talk develops allows the participants to see the progress through the segments that is being made.

In this example, the bar at the top of the screen indicates the three segments of the talk. The arrow can be moved to each new section as the talk progresses.



A simple number sequence can also be included to indicate progress through the segments of a talk. In this example, each number “lights up” to inform the participants of the current segment. The four segments of the talk are discussed as the outset when an overview of the presentation is given.

## Appendix C

### A Checklist for Online Instruction

Pre-Instruction Checklist		
Item	Response	Notes
Do I have the link?		
Have I been made co-host?		
Do I have a strong internet connection? Is my computer charged?		
Do I have a list of participants?		
Are my objectives clear?		
Are my expectations for communication and participation clear?		
Have I created prompts for participation?		
Do I include my contact information?		
Principles of E-Learning Theory		
Principle	Description	Response
<b>Multimedia Principle</b>	“Using any two out of the combination of audio, visuals, and text promote deeper learning than using just one or all three”	
<b>Modality Principle</b>	“Learning is more effective when visuals are accompanied by audio narration versus onscreen text”	
<b>Coherence Principle</b>	“The less that learners know about the presentation content, the more they will be distracted by unrelated content”	
<b>Segmenting Principle</b>	“More effective learning happens when learning is segmented into smaller chunks”	
<b>Signaling Principle</b>	“Using arrows or circles, highlighting, and pausing in speech are all effective methods of signaling important aspects of the lesson”	
Post-Instruction Reflection		
What went well?		
What could be done better?		
What input have I received from my peers?		
What concrete changes will I make next time?		