

# Research-Based Best Practices for Teaching Online: Recorded Lectures

## Brief Summary

- Ensure that the recording is of a high quality.
- Include video and audio, as well as slides, text or images.
- Use a conversational tone when recording a lecture.
- Limit lectures to 20-30 minutes.
- At the beginning of the lecture, provide learners with a brief big picture overview of the topics that will be included in the remainder of the lecture.
- Use recorded lectures to present the core ideas and key points of a lesson.
- Allow learners to control the playback via clear navigation functions.
- Provide a way for students to ask questions either while or right after viewing the recorded lecture.
- Ask learners to complete reflection questions, a discussion board post, or similar assignment after viewing the recorded lecture.
- Clearly explain to learners how to access the recordings as well as your expectations about how they are to engage with the lectures.

### **Ensure that the recording is of a high quality.**

Recent research (Day, 2008) has shown that distance education students prefer, learn more, and feel a greater connection to the instructor when they view lectures of high quality. When possible, recording in a studio rather than from the back of a face-to-face class has also shown to increase instructor presence.

### **Include video and audio, as well as slides, text or images.**

Evidence (Day, 2008) points to greater student achievement when both video and audio of the instructor is included with slides, text or images. However, if the material being presented is inherently detailed and complex, Mayer (2005, 2009) suggests that including only audio of the instructor with additional text or images helps students focus on the material being presented.

### **Use a conversational tone when recording a lecture.**

According to Mayer (2005), students respond more favorably to recorded lectures where the instructor chooses to use a more conversational tone of voice when speaking. Speaking in a more relaxed style can also enhance the instructor's "social presence" online, as does including a video image of the instructor.

### **Limit lectures to 20-30 minutes.**

Online learners are more likely to be successful when lectures and lessons are segmenting or chunked into 20-30 minutes sections (Mayer, 2005; 2009). Shorter lecture segments, separated by other activities, allow learners to better attend to mastery of course material.

### **At the beginning of the lecture, provide learners with a brief big-picture overview of the topics that will be included in the remainder of the lecture.**

By beginning a lecture with an overview of the lesson themes and concepts, learners will be better prepared to comprehend the information shared in the remainder of the lecture. Mayer's research (2005; 2009) has shown that pretraining of main concepts helps support learning

**Use recorded lectures to present the core ideas and key points of a lesson or topic.**

Extensive research (Bligh, 2000) done on lecturing has shown that lectures are very effective at conveying important information to learners efficiently. However, to promote critical thinking, change student attitudes, and teach behavioral and problem solving skills, additional methods such as group work, short reflection prompts, and assignments that require students to actively engage with the content must be considered and utilized (Middendorf & Kalish, 1996).

**Allow learners to control the playback via clear navigation functions.**

A common thread in many studies (Shaprio, 2005; Mayer, 2005; 2009; Gosper et al, 2007; Traphagan et al, 2010) advocate providing learners with the ability to navigate the recorded lecture and in doing so take more control over their learning. This usually includes clear navigational buttons that allow learners to fast-forward, rewind, skip-forward, skip-backward, pause, stop, and play the lecture. Current campus solutions like Mediasite, LecShare and Camtasia allow this navigation.

**Provide a way for students to ask questions either while or right after viewing the recorded lecture.**

Due to the asynchronous nature of the recorded lecture, creating an avenue for students to ask questions about the material covered in the lecture to the instructor helps to increase student achievement (Day, 2008) and instructor presence. Mediasite, which is available at NC State, has a function that allows viewers to send an email to the instructor while watching the lecture. Some other lecture recording software solutions offer similar functionality.

**Ask learners to complete reflection questions, a discussion board post, or similar assignment after viewing the recorded lecture.**

Research (Day, 2008; Mayer, 2009) suggests that requiring learners to complete an assignment that not only reinforces concepts covered but also encourages knowledge application which leads to greater achievement and increased memory recall. If the assignment includes a reflective component there is an even greater probability that learners will retain the information presented. This can replace the need to track whether students have viewed the lectures for participation or attendance scores.

**Clearly explain to learners how to access the recordings as well as your expectations about how they are to engage with the lectures at the beginning of the class.**

Rather than assume learners are comfortable with how to access and how they are being expected to approach viewing the recorded lectures, be explicit in your instructions and directions with students. Doing so decreases learner frustration and will ultimately lead to less work for the instructor throughout the course (Winterbottom, 2007).

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