

Research from Dr. Jack Agamba regarding best practices in video creation:

1. Is there an ideal length for videos that are included in a class? Ideally, some research supporting this answer would be terrific if you are aware of any. I'm curious about how long students will actually watch a video.

Research shows that students will typically watch a video that is about four minutes long. Shank (2017), found that a learner is more willing to replay a four-minute video that is more effective than a seven-minute one, even when assessment is involved. The Pew Research Center (2012) indicated that the median length of the most popular YouTube videos is two minutes and one second. Overall, research ranging from 2013 to 2020 supports the ideal length of a video to range from two minutes to 15 minutes, with four minutes appearing to be the ideal (Berg, Brand, Grant, Kirk, & Zimmerman, 2020; Panopto, 2020; Shank, 2019; Guo, Kim, & Rubin, 2014; and Guo, 2013).

The study by Berg, et al (2020) is very relevant because it was conducted by a collaborative team involving a web-based instructional designer and professors in the fields of Education, Biology, Chemistry and Physics at the University of Wisconsin-Stout. These instructors wanted to migrate from recording regular classroom lectures to mini lectures. Lectures were recorded with Camtasia in a sound-controlled room with professional studio microphones and technical assistance from their Learning Technologies Center. The ideal of chunking material according to key essentials and desired learning outcomes guided the recording of each mini lecture. The response rate for the surveys was 38 percent (58 of 154). The questions ranged from how many students watched partial or all of the mini videos to their perceptions of the appropriateness of length. According to the results, "more than 79% of respondents indicated that short videos were more effective. More than 80% agreed or strongly agreed that having captions was helpful, even though none of them had self-identified as deaf or hard of hearing. Students commented that the captions made it easier to take notes, improved understanding by watching and reading, helped them learn the spellings of words, enabled them to watch the videos with the sound turned off, and enabled them to follow the videos more closely, as the captions helped focus attention" (page 8). The recorded lectures seemed to be very popular with most students such that other faculty have committed to recording mini videos. Dr. Brand said, "the lectures improve student learning. I see it in the breadth and depth of their discussion board posts and their ability to apply the material in other written assignments" (page 8).

An earlier study by Guo (2013) on the ideal length of a video concluded that "the average engagement time of any video maxes out at 6 minutes, regardless of its length". A following study by Guo, Kim, and Rubin, (2014) concluded that a video which is shorter than six minutes is ideal. This study is relevant because it was focused on the quality of production, when MOOC videos were being evaluated for their effectiveness. This video engagement study combined data analysis of 6.9 million view watching sessions from four EdX courses. The study was also among the first to correlate millions of viewing sessions with quality of the video.

2. Are there any best practices for integrating videos into an online class? For example, we used to have an instructor who mentioned special words at various points in a video (like “donut”) and then quizzed students on those words to see if they watched the video.

This practice is good with regard to making students aware that they will have to demonstrate that they’ve actually watched assigned videos. However, with regard to achieving desired learning outcomes, one of the best practices in integrating videos into online classes is to provide low-stakes assessments that students must take after watching a video.

3. Some faculty will want to caption class lectures, which will last anywhere from 20 minutes to several hours. Are there any recommendations we could provide these faculty members?

My advice is that faculty should break down 20-minute segments of their lectures into five-minute versions guided by what students must know and be able to demonstrate for observation. Some faculty typically want to cover all that they’ve spent time preparing because they think it is all relevant. So, I typically ask such faculty to imagine that they are preparing to teach a traditional Face-to-Face class and need to break down learning objectives into Learning Targets (what you will teach for understanding and assess within a class period). When I explain how learning targets are different from learning objectives (a K-12 instructional practice that works for higher education as well), it has typically worked. Because learning objectives are normally written from the perspective of the instructor, further breaking them down into learning targets makes them learner-centered as learners can “teach back” to the instructor by responding, “this is what I must know and be able to demonstrate for observation following completion of instruction and learning.” Many faculty are not aware of learning targets but they are necessary for the effective organization of content for online learning because they provide transparency and efficiency. I do have a framework that addresses this issue that I can repurpose for your review toward meeting this need.

References

- Berg, R., Brand, A., Grant, J., Kirk, J.S., & Zimmerman, T. (2020). Leveraging recorded mini-lectures to increase student learning. https://www.academia.edu/6778520/Leveraging_Recorded_Mini_Lectures_to_Increase_Student_Learning
- Guo, P. J., Kim, J., & Rubin, R. (2014). How video production affects student engagement: An empirical study of MOOC videos. In Proceedings of the first ACM conference on Learning@ scale conference, 41-50.
- Guo, P. (November 13, 2013).- Blog: <https://blog.edx.org/optimal-video-length-student-engagement/> “the average engagement time of any video maxes out at 6 minutes, regardless of its length”.

Panopto. (February 21, 2020). How long should training videos be?
<https://www.panopto.com/blog/how-long-should-training-videos-be/#:~:text=Nearly%20all%20experts%20firmly%20believe,optimal%20length%20for%20instructional%20videos.>

Pew Research Center (July 16, 2012). Video Length “The median length of the most popular YouTube videos was 2 minutes and 1 second.
https://www.journalism.org/2012/07/16/video-length/#_ftnref3

Shank, P. (February 4, 2019). Does Video Improve Engagement and Learning? eLearning industry blog. <https://elearningindustry.com/engagement-and-learning-does-video-improve>

Shank, P. (2017). Relevancy- asking learners to test their knowledge shortly after watching a video through low-stakes assessments (why a four-minute video is more effective than a seven-minute one). Learner is more willing to replay.