MAKING EFFECTIVE VIDEOS FOR (LIVE) ONLINE LEARNING QUICKLY

Robert R. Kellner

Presenting Author: Robert R. Kellner (robert.kellner@th-rosenheim.de)
Fakultät für Angewandte Natur- und Geisteswissenschaften, Technical University of Applied Science, 83024 Rosenheim, Germany

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Videos are capable of delivering information that would otherwise be delivered in person in a classroom. At the same time, they are independent of restrictions on time and location and can be viewed by students according to their own time and needs. If used appropriately, they have been shown to improve students' understanding of the material and organizing the information presented in an introductory physics lecture (Dunleavy, Kestin, Callaghan, McCarty, & Deslauriers, 2022).
By incorporating several principles for the design of multimedia material, they can further improve learning (Mayer, 2020).

Depending on the type of video (informal talk, lecture, tutorial), different design formats are more beneficial to the learner. The presentation of static slides or chunked recordings of full lectures, however, are not engaging (Guo, Kim, & Rubin, 2014). During the COVID-19 pandemic, a lot of in-person lectures have been replaced by synchronous online lectures. These lectures have the same format of videos, but are usually limited in terms of possibilities to meet good design principles. This can create a barrier for some students to learn. Since they are live in nature, there is no possibility for post-production. Enhancements of the video-stream have to be made while presenting the lecture. This imposes further requirements and difficulties on the presenter.

There exists a variety of technical solutions usually aimed at online-streaming of live content (e.g., video-games). Those solutions can be utilized to make synchronous online lectures meet good multimedia design principles. As an example, the presenter can be shown in front of supporting multimedia material, following the design principle of image and embodiment (Mayer, 2020). Using this kind of technology allows a video design that increases the positive emotions and positively affect learning (Heidig, Müller, & Reichelt, 2015). This can also promote students' engagement. Additionally, these technologies enable the production of high-quality videos with little to no post production.

In this presentation, a short overview of relevant multimedia design principles is given. Examples of how to implement them in short form videos is demonstrated. Furthermore, a video setup for presenting effective online lectures and the production of videos with very little post-production needs is explained.

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