



Center For Interdisciplinary Learning and Teaching

7. Design recommendations

Carefully designing teaching/learning videos makes a significant difference in engaging learners and supporting the learning process.

The following section presents general design recommendations as well as specific techniques and tools that are helpful when creating teaching/learning videos.

General design recommendations

- 1. **Clarity and simplicity:** Use clear and concise language and clear graphics. Avoid cluttered slides and unnecessary decorative elements that could distract from the essentials.
- 2. **Structure and segmentation:** Divide the content into logical sections and units. A clear structure helps learners to follow the main idea and process the material faster.
- 3. **Visual and auditory highlighting:** Use visual cues such as colours and shapes as well as auditory cues such as intonation to highlight key points and support the learning process.
- 4. **Interactivity:** Integrate interactive elements such as questions or tasks to actively involve learners and reinforce what they have just learnt.

Preparing a script

Prepare what you want to say in advance. It usually makes sense to write yourself a text or script that you can use as a guide when recording the video.

This prevents you from losing the thread and possibly forgetting important points or putting them in the wrong order.

The following links will take you to various sample scripts that you can use to create your teaching/learning video.

Various sample scripts:

https://tu-

dresden.de/zill/ressourcen/dateien/Vorlage Drehbuch ENGLISCH.docx/at download/file

https://www.nextthought.com/blog/5-tips-to-create-a-video-script-that-will-engage-and-educate-college-students

https://www.kolabtree.com/blog/how-to-write-a-script-for-an-educational-video/





Center For Interdisciplinary Learning and Teaching

Animated slides

Slide animations are another effective method of creating educational videos. You can create and animate slides using programmes such as PowerPoint or Keynote. Text and graphics can be gradually faded in or moved to present the learning content dynamically. This helps to direct the learner's focus and explain complex processes step by step.

It is recommended that the speaker includes herself/himself into their own video. However, a still image of your own person is rather distracting. Instead opt for a recording of yourself while you are presenting.



(Example of an animated slide with video overlay of the speaker)

Paper slide technique (Flat Lay/ Overhead Video)

The paper slide technique is a simple and cost-effective method for creating instructional videos. It involves using hand-drawn or printed images and text on paper or cards, which are placed and moved into the camera one after the other during the explanation. This technique conveys a personal and handmade touch and is particularly suitable for visualising concepts and processes. However, it also requires a certain amount of artistic skill to create appealing visualisations.



(Example paper slide technique: hand shows a printed picture into the camera)

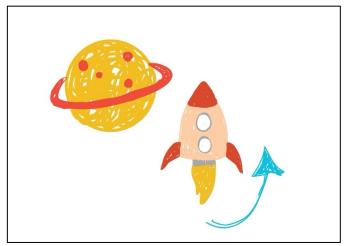




Center For Interdisciplinary Learning and Teaching

Painting programs

In a painting program, you can create pictures, diagrams, as well as formulas, and then export the process as a film using a replay function. The result is an image that gradually builds up and thus attracts the viewer's attention. This method is particularly effective as it visualises the learning process and makes it dynamic. However, creating such animations requires artistic skill and experience with the relevant software tools, which can be a challenge for some educators.



(Example of a hand-drawn painting)

Here are some examples of free painting programmes that have a replay function:

→ Krita

Krita is an open source painting and drawing application that offers a variety of tools for digital art. It has a built-in replay function that allows you to export drawings as a video to show the progress of your work.

Platforms: Windows, macOS, Linux. Link: https://krita.org/de/

→ MediBang Paint

MediBang Paint is a lightweight, free digital painting programme that offers many of the same features as expensive programmes. It has a function that allows you to record the drawing process and save it as a video.

Platforms: Windows, macOS, iOS, Android. Link: https://medibangpaint.com/en/

→ FireAlpaca

FireAlpaca is a simple and user-friendly drawing programme that is available free of charge. FireAlpaca also offers a function for recording and playing back your drawing process, which can be exported as a video.

Platforms: Windows, macOS. Link: https://firealpaca.com

https://tu-dresden.de/zill/materialien-und-tipps-fuer-die-lehre/erstellung-lehr-lernmaterialien/videoeinsatz-in-der-lehre-1





Center For Interdisciplinary Learning and Teaching

360° Videos

360-degree videos provide an immersive learning experience by allowing learners to look around in all directions. This is particularly useful for presenting environments or processes that require spatial orientation, such as virtual field trips, lab tours or complex machinery. To create a 360-degree video, you need a special camera and software for editing. These videos can be viewed on platforms such as YouTube or in VR environments. However, production is more complex and requires additional technical knowledge and resources.

You can find out more about 360-degree videos by following the link: https://tu-dresden.de/zill/materialien-und-tipps-fuer-die-lehre/extended-reality

(Muthmedia, 2023)

<u>Lightboard</u>

A lightboard is a transparent sheet of glass on which people write with fluorescent markers. During the presentation, the teacher stands behind the glass plate and writes or draws directly on it while the camera records what is happening. This method combines the advantages of direct speech and visual presentation and is particularly appealing as the teacher can look into the camera (and therefore at the learners) while explaining. However, the use of a lightboard requires special equipment and a certain amount of familiarisation.



(Example picture of a Lightboard from Learning Glass Solutions & TinyFrog, o. D.)





Center For Interdisciplinary Learning and Teaching

If you are interested in creating a video using the lightboard method, we are happy to help! We will teach you the skills required to use a lightboard and provide you with the technology you need to realise your ideas.



Lisa Eggerichs Dr. Hans Jörg Schmidt



Mommsenstr. 6 (FOE, K47)



tsp@tu-dresden.de

Sources:

Learning Glass Solutions & TinyFrog. (n. D.). *LGS66SP Standalone Lightboard Studio Package*. Learning Glass - The Original Lightboard. https://www.learning.glass/product/lgs66-studio-package/

Muthmedia. (2023). Wow-Effekt: Das sind die besten 360-Grad-Videos. Retrieved June 27, 2024, from https://nur-muth.com/blog/die-besten-360-grad-videos/