

[illegible]

W I S E
OFFSHORE

DIGITAL LEARNING TOOLBOX

WISE OFFSHORE PROJECT

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1: Introduction to digital learning

In this Digital Learning Toolbox, you can find inspiration for how to include digital tools in your teaching. The toolbox is primarily aimed at teaching adult learners, where all or parts of the teaching are carried out in video conferencing tools. It is designed to help you choose the best option for digital learning and give practical advice when engaging in an online learning session.

Regardless of which digitally supported learning session is chosen, this Toolbox will help the teacher to prepare as best as possible using tips and tricks from practical experience. In addition, tools for student interaction are included as well as for creating podcasts, videos and feedback.

At the end of the document, there is a section on teaching in virtual reality with the aim of looking ahead at the ways of online learning to come.

Structuring digitally supported learning sessions

Learning sessions can be structured in many ways and with varying use of digital tools. You can meet physically with your students, or the sessions can be held online. Classes can be synchronous, where you and the students join the session at the same time, or students can engage in course activities at any time, independently of other students. For example, when they watch videos at home.

These two axes create four squares, each representing a way in which teaching can be structured in relation to the use of IT.

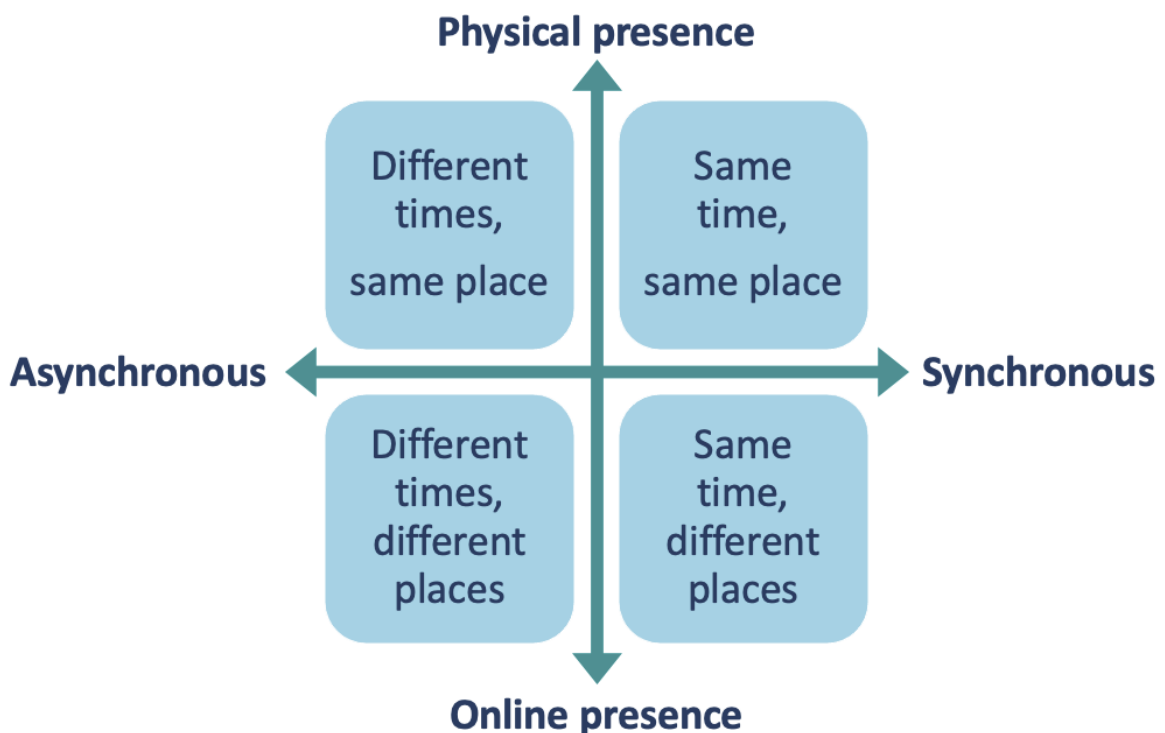


Figure 1: Digital learning structures

Synchronous session with physical presence: Face to Face (F2F) learning where all students are physically present. IT can be used to support F2F teaching, for example in the form of a PowerPoint presentation, by activating the students through polls via the mobile phone or by sharing tasks with the students by email.

Synchronous online sessions: The students are synchronously engaged in online activities, where teaching takes place over the internet. It can for example be an online lecture, an online Q&A session or online group work.

Asynchronous online sessions: Students engage in course activities at any time, independently of other students. For example, the student's write an assignment in Word or takes a full e-learning course that combines educational videos and multiple-choice quizzes.

Asynchronous learning with physical presence: This is a very unconventional way of structuring learning in schools and universities and is mostly known from museums where we visit the same location at different times. IT can be used to support learning at museums in many ways, e.g., through interactive displays and through augmented and virtual reality that recreate the past. This way of structuring teaching will not be elaborated further in this toolbox.

Full courses often include more than one of the mentioned session formats. For instance, **blended learning** combines F2F learning sessions and synchronous or asynchronous online sessions. The two synchronous formats are also combined in **hybrid sessions**, where some students meet physically in the same classroom, while others participate in the same session online, e.g., due to local corona restrictions or long travel time.

According to Christensen et al. (2012) there is no clear model that determines how much of the course should be face-to-face learning and how much should be online learning. The choice of educational design depends on three factors:

1. The students' need for flexibility.
2. The academic content of the course: Some skills and competences can better be achieved by physical attendance and some exam forms require students to be present.
3. The educational culture, including the teachers' motivation and competences for web-based teaching.

(Christensen et al. 2012, 17-18)

The tools described in this digital learning toolbox mainly focus on synchronous online learning sessions, but chapter 11 *Self-Paced Learning*, will look into the asynchronous online format.

Videos

- Structuring digital learning: <https://youtu.be/CTJtUj2wcho>
- Hiim and Hippe's Didactical Relationship Model: <https://youtu.be/bfvtw6Qsz3k>
- How do people learn? Learning theories and the use of educational IT: <https://youtu.be/mlyedF5xrRw>

2. Video conferencing tools

There are many different video conferencing tools on the market. Two of the most used are Zoom and Teams. In this section, you can find video tutorials that can help you get started with these tools, or that may guide you to try out new features.

Independently of the chosen tool, it is important that you are familiar with the basic functions.

Zoom tutorials

- Video instructions for Zoom: <https://www.youtube.com/user/ZoomMeetings/featured>
- Joining a Zoom Meeting: https://youtu.be/pAMDxH_H_Cs
- Basic In-Meeting Navigation: <https://youtu.be/Dcd6nNmtGo0>
- Zoom In-Meeting Chat and Reactions: <https://youtu.be/0ZxPLJC4NMc>
- Share Your Screen, Video or Audio: <https://youtu.be/C4sptqFb0Bk>
- Using Breakout Rooms During a Meeting: <https://youtu.be/GDKJM6JhyUY>
- Creating and Collaborating with Zoom Whiteboard: <https://youtu.be/0bRzpVhd4VE>
- Polling for Zoom Meetings and Webinars: <https://youtu.be/dgZxc09FCIQ>
- Use Q&A, Raise Hand, and Chat in Zoom Webinar: <https://youtu.be/zlrbcsyDhOk>
- Sharing slides as a Virtual Background: <https://support.zoom.us/hc/en-us/articles/360046912351-Sharing-slides-as-a-Virtual-Background>

Teams tutorials

- How to join a Microsoft Teams meeting: <https://youtu.be/tfqcljc3g94>
- Tips for Microsoft Teams meetings: <https://youtu.be/GgjN3lIn6DA>
- Use breakout rooms in Teams meetings: https://support.microsoft.com/en-us/office/use-breakout-rooms-in-teams-meetings-7de1f48a-da07-466c-a5ab-4ebace28e461#bkmk_create-breakout-rooms
- How to use Whiteboard in Microsoft Teams: <https://youtu.be/YBnojDFXo4k>
- Create a poll in Teams: <https://support.microsoft.com/en-us/office/create-a-poll-in-teams-3162720d-dfee-4ce2-ae65-4dbbbb6a7827>
- How to create Quizzes in Forms and Microsoft Teams: <https://youtu.be/7CwSwEir86w>

3. Online Lectures

Below you will find tips to optimize your online lecture:

Before the online lecture:

- Make sure you have a fast internet connection
- Use a good microphone for good audio quality
- Be familiar with the video conferencing tools you are using
- Make as much information as possible, e.g., slides and exercises available to the students prior to the lesson

At the beginning of the online lecture:

- Let students join the meeting 10 minutes before the lecture starts in order to test their equipment (unless they are having these classes on a regular basis)
- Make clear guidelines for how and when to ask questions, when to have breaks etc.
- Be clear about teaching form, teaching plan and learning outcomes

During the online lecture:

- Students are muted and have their cameras on during lectures
- Take regular breaks
- Encourage students to get some fresh air during breaks
- Have a clear structure in your presentation
- Use visuals like PowerPoint presentations, images etc.
- Keep the presentation short
- Involve and activate the students by combining the lecture with other activities, e.g., group discussions, polls and quizzes
- You can use online whiteboards like Jamboard or the whiteboards included in Zoom (<https://youtu.be/ObRzpVhd4VE>) or Teams (<https://youtu.be/YBnojDFXo4k>)

Video

Online lectures: <https://youtu.be/FQ-Kl0lrunQ>

Online Q & A session

Self-study elements like reading, videos and podcasts can be followed up by online Q & A sessions where students can get answers to their questions. These sessions are held synchronously in Zoom, Teams or similar video conferencing tools.

It can be difficult to ask questions in an online environment, but questions can be sent to teacher before the Q & A session. You can also use dedicated Q & A features in the video conference application.

Zoom's Q & A feature allows attendees to ask questions during the webinar, and for the panellists, co-hosts, and host to answer their questions. Optionally, attendees can answer and upvote each other's questions.

You can read more about Zoom Q & A here: <https://support.zoom.us/hc/en-us/articles/203686015-Using-Q-and-A-as-the-webinar-host>

Note! The Webinar Add-on is a prerequisite for using the Zoom Q & A feature.

In Teams you can add the Q & A app to organize how attendees ask questions. Press this link to see the video tutorial on Teams Q & A: <https://www.youtube.com/watch?v=kQoxoOZUJ9Y>

4. Hybrid sessions

Hybrid meetings and sessions are characterized by some students being physically present in the classroom, while others participate online in the same meeting. This can be used both as an emergency solution for students who are prevented from physical participation, e.g., due to illness, and as a general option for students who prefer to participate in the meeting online, e.g., due to long travel distances.

In successful hybrid learning sessions teaching is conducted synchronously in a way that involves physically present students and online students equally. This is challenging as the digital format creates a barrier between the online participants and the teaching and interaction that takes place in the classroom.

The following advice can help break down this barrier. In general, you can follow the same advice as for sessions where all students are online but because of the dual format you need to be extra aware of the online students.

Before the hybrid session:

- Make sure you have a fast internet connection
- Use external microphones in the classroom. It is often necessary with more microphones in the classroom in order to capture both the teacher's and students' speak
- Use a good wide angle webcam that captures more students in the room. Some cameras have automatic zoom that zooms in on the person speaking
- Make sure everyone can hear and see each other
- Make as much information as possible, e.g., slides and exercises available to the students prior to the lesson
- Make sure that there is access to extra physical rooms that can be used for group work. Noise from other groups can be very disturbing to online participants if several groups are working in the same classroom

At the beginning of the hybrid session:

- Let online students join the meeting 10 minutes before the lecture starts in order to test their equipment (unless they are having these classes on a regular basis)
- Tell the online students where they are in the room. Are they on a large screen or on a small phone?
- Make clear guidelines for how and when to ask questions, when to have breaks etc.
- Be clear about teaching form, teaching plan and learning outcomes

- It is often difficult for the teacher to focus on both present and online students at the same time. Therefore, it can be helpful to have an assistant who keeps track of the technique and is aware of input from online students
- As an alternative, each online student is assigned a buddy in the physical classroom whose responsibility it is to ensure that the online student feels included in the activities of the class

During the hybrid session:

- Online students have their cameras on during the session
- Position yourself in the room so that both present and online students can see your face. Do not stand with your back to the webcam.
- Take regular breaks
- Involve both online and present students by combining the lecture with other activities, e.g., group discussions, polls and quizzes.
- Don't make notes and drawings on a physical whiteboard as it is difficult for the online participants to see these notes. Instead, you can use online whiteboards like Jamboard or the whiteboards included in Zoom (<https://youtu.be/ObRzpVhd4VE>) or Teams (<https://youtu.be/YBnojDFXo4k>)
- Use digital tool that can be used by both present and online students, e.g., Padlet and Miro.
- Repeat questions asked in class to make sure that the online students have heard them too

Video

Hybrid lectures: <https://youtu.be/-Zmxv0STQ-U>

5. Activating the students during online sessions

It can be difficult to maintain students' attention in online teaching. It is therefore important to switch between different activities of shorter duration. Group discussions, polls, quizzes and similar interactive elements are good for involving and engaging the students and thus maintaining attention and making the teaching relevant.

Tools for student interaction

- Kahoot
- Mentimeter
- Padlet
- Miro
- Jamboard
- Microsoft Whiteboard

Video

Activating students in online sessions: https://youtu.be/OAUdhd_Mdw4

Kahoot!

<https://kahoot.com>

Kahoot offers user-generated multiple-choice quizzes that can be accessed via a web browser or the Kahoot App. Kahoot adds gamification elements to teaching sessions and can among other things be used to

- Introduce new topics: Test the students' prior knowledge
- Recap on topics and improve knowledge retention.
- Use Kahoot! as an icebreaker
- Use poll questions to gather students' opinions (Polls are not available in the free version)
- Let students create kahoots for fellow students

Tutorials and guides

- Kahoot! tutorials playlist: <https://youtube.com/playlist?list=PLVpm5New2Rw-StW-dFikh3BEVx78CSPyR>
- How to create a Kahoot! <https://youtu.be/KJgZZQcsSPk>
- How to play a game of Kahoot! <https://youtu.be/YsQ10VdR9DA>
- Host Kahoot! games <https://youtu.be/FqEqjasf-5g>

Mentimeter

<https://www.mentimeter.com>

Mentimeter is a web-based presentation tool with which you can engage the students by actively involving them in your presentation. Mentimeter lets you involve the students by asking them questions. The results are directly available to you and the students, and you can use them in your presentation.

With a free account you can make unlimited presentations for an unlimited audience with up to 2 question slides and up to 5 quiz slides.

Mentimeter can be used for making

- Word clouds
- Polls
- Real time Q & A's
- Quizzes.

Tutorials and guides

- How to create your first Mentimeter presentation: <https://youtu.be/VpbXY98R39c>
- How to Create Your First Mentimeter Presentation- 7 Minute Crash Course Tutorial: https://youtu.be/on_lb7SP6Go
- Beginners course: <https://academy.mentimeter.com/courses/menti-101-beginner-guide>
- Mentimeter tutorial videos on YouTube: <https://www.youtube.com/c/Mentimeter-interact-with-your-audience/featured>

Padlet

<http://padlet.com>

Padlet is a digital bulletin board where students can share posts, ideas, links, files, documents etc and they can comment on other students' posts. Students can work on the same board simultaneously.

Padlet has a very intuitive user interface and is easy to use for both teacher and students. Posts can be organized in different structures: For instance, in a grid or a shelf, on a timeline or on a map. Padlets can be exported in different formats, among others as a pdf or image.

Padlets can be used for different learning activities. For instance:

- Group work: Let the students cooperate and share their work in Padlet.
- Brainstorming: Add ideas and input to the Padlet and sort it afterwards in categories.
- Timelines: The Padlet timeline template is good for making visual timelines that illustrates a chronological order.
- Maps: Let the students add their physical location to the same map. It can be used as an icebreaker.
- To sum up: Padlet can be used for summing up on points of a lecture or discussion

A free Padlet account limits users to three Padlets. You can use one of the three Padlets, then delete and replace it with a new one, but you cannot save more than three Padlets for later.

Tutorials and guides

- To get started with Padlet you can find guides here: <https://padlet.help/l/en/get-started>
- Video: Padlet Tutorial for Teachers: <https://youtu.be/dC69Sr-OQik>
- Video playlist: Padlet for beginners: <https://www.youtube.com/watch?v=pLdZJAc3bGQ&list=PL5hbXqucLc-BgkHSqXKBFxo0DSRVZZxBR>
- For inspiration, see this gallery: <https://padlet.com/gallery>

Miro

<https://miro.com>

Miro is an online collaboration platform, where students work on the same whiteboard. Each Miro whiteboard is an infinite canvas where you can share notes, videos, links, images etc. and it can be used for many different purposes. For instance,

- Mindmapping
- Brainstorming
- Project planning
- Meeting planning
- Creating flowcharts

Miro offers several templates within meetings & workshops, brainstorming, research & design, strategy & planning, agile workflow and mapping & diagramming.

With a free Miro plan, you can invite as many team members and create as many boards as you want, but only 3 boards will be active and editable at once. As an educator, you can apply for a free Educator Plan that gives you access to unlimited boards. You can use this link to apply for an Educator Plan: <https://miro.com/contact/education/>

Tutorials and guides

- Video playlist How to Get Started with Miro:
<https://www.youtube.com/watch?v=ynxoouz4zwA&list=PLmiHeOR4hbzRbpqJVs2HllnjhrTeiDVSE&index=4>
- Miro template library: <https://miro.com/templates/>

Jamboard

<https://jamboard.google.com>

Google Jamboard is a simple online whiteboard that allow students to work on the same board.

You can either download the Jamboard app or work directly in the browser. Jamboard has fewer features than Miro and where Miro is an infinite board, the size of a Jamboard is fixed. Instead, you can add new screens to a Jamboard. This can be seen as a limitation to Jamboard but at the same time it offers structure and easy navigation.

Jamboard can for instance be used for mind mapping, brainstorming and collaboration.

Tutorial:

- An Introduction to the Jamboard App: <https://youtu.be/hVZPh8Zz8lw>

Microsoft Whiteboard

<https://whiteboard.office.com>

If you have a Microsoft 365 account, you can use Microsoft Whiteboard. Whiteboard is available for download in the Microsoft Store on Windows 10, and on the App Store for iPhone and iPad. You can also access it in the browser.

Microsoft Whiteboard can be used as a collaborative tool where more persons work on the same whiteboard. The board has an infinite canvas where you can add sticky notes, text, photos, Microsoft documents etc. It also contains more than 40 templates that you can use for, e.g., brainstorming, project planning and ice breaking activities.

Tutorials and guides:

- Quickstart guide: <https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE4GySd>
- Video tutorials: <https://www.youtube.com/c/MicrosoftWhiteboard/videos>
- How to use Whiteboard in Microsoft Teams: <https://youtu.be/YBnojDFXo4k>
- Microsoft Whiteboard blog: <https://techcommunity.microsoft.com/t5/microsoft-365-blog/microsoft-whiteboard-in-teams-adds-sticky-notes-and-text/ba-p/1565089>

6. Online group work

It is often a good idea to let people work in groups when you are doing online sessions. Group work creates variety in teaching and gives the participants the opportunity to contribute actively. But the online format also brings some challenges:

The conversation is often less fluid when it takes place online and the group is isolated in the breakout room. Students cannot see or communicate with other groups, and it can be difficult to ask the teacher for help.

The following advice supports a rewarding online group work:

- Let groups work in breakout rooms
 - Zoom: Using Breakout Rooms During a Meeting:
<https://youtu.be/GDKJM6JhyUY>
 - Teams: https://support.microsoft.com/en-us/office/use-breakout-rooms-in-teams-meetings-7de1f48a-da07-466c-a5ab-4ebace28e461#bkmk_create-breakout-rooms
- Make small groups of two to four people. It makes it easier for all students to contribute to the group work.
- Make it clear who is working with whom.
- Divide the group work into smaller parts that make it clear what the students have to do. For example, an individual brainstorm (brainwriting), a discussion of proposed solutions and a summary.
- Tell how long the individual parts should last.
- Make it clear what the group work should result in. For example, three to five points in prioritized order.
- Tell how long a presentation of the group work should last.
- Make sure that the students always have access to the material that they need in the group work. For example, by sending it to them by email before the session.
- Visit the groups in the breakout rooms to hear if they need any help.
- All students have the camera turned on during group work.
- You can let the students do a “walk and talk” over the phone, where they discuss a topic in pairs while going for a walk.
- Instead of the traditional oral presentation of group work, you can let students produce videos, podcasts, photos and graphics to express and visualize the curriculum or the result of a group discussion.
- You can give students 10 minutes to prepare a quiz on today's topic for the other groups.

Video

Online group work: <https://youtu.be/6VA2Fa1ka38>

7. Online networking and creation of social relations

Good social relations between students can enhance their engagement as well as learning. It can for instance support students' exchange of experiences and perspectives and the expansion of professional network.

Building social relations can be difficult in online classes but digital learning can be organized in a way that facilitate students' dialogue and collaboration. In this way, online sessions can become a social form of learning.

Some students are interested in creating social relations to the other students while others are not. Therefore, it is important to understand the target group before planning the course.

Social relations can be enhanced through different activities:

- Build relations to the students by showing commitment, support and clear expectations.
- Smile and laughter can be felt through the screen.
- Begin the online session by letting students introduce themselves – this makes online communication easier afterwards.
- Let students do group work.
- Spend the breaks together even though you are online.
- All students make a video introduction of themselves – individually or in a group.
- Use icebreakers to help students get to know each other.

Online icebreakers

Icebreakers are fun activities that helps students get to know each other. They are also good for creating a relaxed atmosphere in the online classroom. Icebreaker can both be used at the beginning of a session and for activating the students during the session.

You can find inspiration for online icebreakers here:

- Make students feel welcome and as member of a community by saying “Hello” and “Welcome” when they log into the online forum.
- Ask a question for everyone to answer in a short sentence or with a few words. For example, "How's the weather today where you are?" or "What do you hope to get out of today's session?"
- Icebreaker questions can be answered in many ways:
 - In the chat in the video conferencing tool

- In a word cloud in Mentimeter (In one word, how would you describe last workshop?)
- On a shared bulletin board in Padlet
- Through a poll in Zoom, Teams or Mentimeter (What is your energy level today?)
- By dropping a pin in a Padlet map (Where are you today?)
- In a multiple-choice questionnaire in Mentimeter (What would you like to discuss during this class?)
- By showing thumbs-up or thumbs-down
- Start the session by asking three reflection questions about today's topic. Let the students discuss the questions in groups and write their answers in a shared Padlet board.
- Find inspiration for icebreaker questions here:
 - <https://www.doopoll.co/post/ice-breaker-live-poll-questions>
 - <https://blog.slido.com/30-icebreaker-questions-audience-live-polling/>
 - <https://slidelizard.com/en/blog/icebreaker-polls>

Video

Dialogue and collaboration in online sessions: <https://youtu.be/mpD-4it2nYU>

8. Videos

Videos are often useful in online learning as they bring variety to the learning process. Instead of listening to a live online lecture, the students get greater flexibility through videos, as they can watch the lecture at their own pace, where and when it suits the individual student. It also allows the student to watch the video again if he or she needs a repeat.

Videos can be used for many different purposes:

1. Giving asynchronous lectures. Instead of giving a live online lecture you can record the lecture and let the students watch the video when it suits them.
2. Giving an overview of the next session's topic
3. Giving instruction for assignment, equipment, software etc
4. Giving introduction to tools and processes
5. Bringing practice into the classroom
6. Giving introduction before reading a text: Why is this text relevant? What should the student focus on when reading the text? Etc.
7. Giving a summary of the text to help students with dyslexia.
8. Giving video feedback on written assignments

Tips for making good learning videos:

- Be clear about the learning goals for the video. Choose the main points that you want to cover in the video. The more complex the content, the fewer points you should include in your video.
- Create a clear structure around the focus point. A clear structure helps students decode the content and focus during the video.
- Write a manuscript where you prepare what you want to say.
- Make good illustrations to support your students' understanding. Make more slides with less information on each slide.
- Keep the videos short. It is better to make more short videos than fewer long videos.
- When recording your voice: Use a good microphone and avoid background noise.
- Most smartphone cameras can be used for making video recordings
- Be aware of the lighting when recording the video. Avoid backlight if you are recording yourself or others.
- Add optional closed captioning for students who prefer to read subtitles.
- Use Mayer's 12 Principles of Multimedia Learning
<https://waterbearlearning.com/mayers-principles-multimedia-learning/>

- The closer you are to your audience, the less professional does the video have to be. And vice versa
- You can supplement videos with questions and other activities that activate students. For example, you can use [Mentimeter](#), [Padlet](#) and other online whiteboards

Educational videos can be made in many ways. Here are some examples:

- **Talking Head:** Make a recording of yourself against a neutral background. Look into the camera. When editing the video, you can add slides and images to illustrate what you're saying.
- **Dialogue:** Prepare interview questions and let the interviewee prepare his answers in advance. Make a video recording of the interview. After recording the interview, you can cut out your questions if you think it works better.
- **Show and tell 1:** Make a recording of your screen while showing a slide show or drawing and writing on a whiteboard.
- **Show and tell 2:** Start by adding illustrations (images, PowerPoint slides and video recordings) to the video editor. Then record your voice and add it to the illustrations.

Video

How to make learning videos: <https://youtu.be/magCMKy0lZQ>

Tools for creating videos:

PowerPoint

It is very easy to turn your PowerPoint presentation into a video. Go through these three steps:

1. Prepare your PowerPoint presentation as usual

You can use the notes option to write out what you plan to say

2. Add voice recordings to each slide:

Mac: <https://youtu.be/QUQyY8aBfOk>

Windows: <https://support.microsoft.com/en-us/office/add-and-record-audio-in-powerpoint-eeac1757-5f20-4379-95f2-0d0cd151d5b8>

When you are working on a **Windows** PC you can also make a recording directly from PowerPoint with your slides and a video recording of you in the corner:

<https://support.microsoft.com/en-us/office/record-a-slide-show-with-narration-and-slide-timings-0b9502c6-5f6c-40ae-b1e7-e47d8741161c>

3. Export your presentation as video:

Mac: <https://support.microsoft.com/en-us/office/export-your-powerpoint-for-mac-presentation-as-a-different-file-format-0547523c-56c4-4799-b5f7-6257907c09ee>

Windows: <https://support.microsoft.com/en-us/office/save-a-presentation-as-a-video%E2%80%8B-in-powerpoint-ba919059-523d-40a8-b99c-08d18996c09d>

Video Editor (Windows)

Windows 10 and 11 come with a Video Editor app that gives you access to most common video editing functions. It is good for creating simple videos but and can be good as a starting tool.

To open the editor, go to the search field on the task bar and type in “Video editor”.

You can find tutorials here:

- Create films with a video editor: <https://support.microsoft.com/en-us/windows/create-films-with-a-video-editor-94e651f8-a5be-ae03-3c50-e49f013d47f6>
- How to use Free Windows 10 Video Editor (video): <https://youtu.be/t6yQwLuoO3w>

Shotcut

Shotcut is a free open source video editor that can be downloaded from <https://shotcut.org>

As it offers more functions than Video Editor, the learning curve is steeper but it also allows you to create more sophisticated videos.

Tutorials for Shotcut can be found here:

<https://shotcut.org/tutorials/>

Screencast-O-matic

Screencast-O-matic is a tool for video editing and screen casting. You can capture any area of your screen for quick recordings with the option to add audio narration from your microphone and video from your webcam.

Tutorials for Screencast-O-matic can be found here:

<https://screencast-o-matic.com/tutorials>

iMovie (Mac)

MacBooks come with a free video editing tool, iMovie. iMovie is easy to use and lets you add images, videos and sound recordings to your video project.

iMovie User Guide can be found here:

<https://support.apple.com/en-gb/guide/imovie/move6ccb3330/mac>

Photo Booth (Mac)

MacBooks also come with the Photo Booth app. You can use Photo Booth for making recordings of yourself.

The Photo Booth User Guide can be found here: <https://support.apple.com/en-gb/guide/photo-booth/welcome/mac>

YouTube

How to upload a video on YouTube:

<https://youtu.be/6C4dEpT0rYg>

Share videos and channels from your computer: https://youtu.be/Ya_4rht4DG8

Add subtitles and captions in YouTube videos:

<https://support.google.com/youtube/answer/2734796?hl=en>

9. Podcasts

Podcasts and audio files can be used to fulfil many of the same purposes as educational videos. Podcasts and audio files only contain sound and no visuals, and they can be a mixture of lectures, interviews, reading aloud etc. A podcast is more polished and well-edited than an audio file. Usually, a podcast is one in a series of podcasts whereas audio files just can be individual files. In this chapter, both podcasts and audio files will be named 'podcasts'.

- Podcasts offer greater flexibility to students who can listen to the podcasts anywhere, e.g., while walking, doing the laundry, traveling on the bus etc.
- Podcasts can be longer than videos, up to 60 minutes
- The teacher can go into depth with the academic material
- Podcasts are reusable
- Podcasts add variation to the course
- Be aware, that podcasts will not necessarily have the students' full attention the entire time

Tips for making good podcasts

- Write a manuscript before you start recording. You can read from the script as you don't have to look the audience in the eyes
- Use a good microphone and avoid background noises
- Record in a room with soft furnishings and carpets. This will remove echo and give a better sound
- You can start and end a podcast with a jingle
- Start with a brief introduction to the podcast. What is it about and why is it relevant?
- When you have made your recording, you can edit it in an audio editor if you want to cut off the unnecessary parts, add music or mix different audio files.

Tools for creating podcasts and audio files

Most smartphones have an audio recorder that can be used for audio recordings. An external microphone is recommended for heightening the quality of the recordings.

Recordings can also be made with an external microphone connected to the computer. Different audio editors can be used for this purpose:

Audacity (For Mac and Windows)

Audacity is a free open-source audio editor and recording software.

<https://www.audacityteam.org>

How-Tos and Tutorials for Audacity: <https://support.audacityteam.org>

GarageBand (Mac only)

GarageBand is Apple's own audio/music editor. You can download it for free from AppStore.

<https://support.apple.com/en-gb/guide/garageband/gbnd54fe809c/mac>

10. Online evaluation and feedback

How can you use digital tools to measure the students' learning outcomes? And how do you give feedback to students in an online course?

Feedback is an important part of students' learning process. Feedback on assignments and group work motivates students, it increases their learning outcome, and it shows commitment from the teacher.

Evaluations can be done, and feedback can be given in many ways. You can find ideas for digital evaluation and feedback formats here:

Teacher's evaluation of students:

- MCQ test. If the test is made for an international course with students participating from different countries, questions in the MCQ should be reviewed by a person who doesn't speak English as first language.
- Questionnaire with open-ended questions
- Written assignment
- Online oral examination held in video conferencing tool
- Online presentation made by students, individually or in groups

Teacher's feedback to students:

- Online quizzes with explicit explanations on why an answer is correct or not
- Kahoot quizzes. After the quiz the teacher follows up on the quiz results
- Written feedback
- Oral feedback in a one-on-one online meeting
- Oral feedback groupwise
- Video feedback on assignments
- Recorded oral feedback on assignments, e.g., made in Kaizena
- General feedback is given in online meeting

Students feedback to students:

- Students give each other feedback on assignments, e.g., through Peergrade
- Coaching between students
- Students evaluate or reflect on their own learning process

Students feedback on teaching:

- Questionnaires, e.g., made in Google Forms
- Polls, e.g., made in Mentimeter
- Comments written on a shared whiteboard, e.g., Padlet

Feedback tools

Kaizena

<https://www.kaizena.com/>

Kaizena is a free add-on to Google Docs, that offers four ways of giving comments. One of them is to add voice comments to a Google Document. You highlight the relevant words and speak to give verbal feedback. You can also attach reusable resources for common problems.

Get started with Kaizena:

Install Kaizena add-on:

https://workspace.google.com/u/0/marketplace/app/kaizena/354175553078?hl=en&pann=docs_addon_widget

Tutorial video: Kaizena in 2 minutes: <https://youtu.be/tj--iDSds4Q>

Peergrade

Peergrade is an online platform to facilitate peer feedback sessions with students. When giving feedback to peers, students learn to exchange ideas and give constructive criticism of each other's products. Feedback can be given and received anonymously. Peergrade is only free for a 30 days trial period.

11. Self-paced learning

In this toolbox the term self-paced learning is used to describe e-learning where students can work on their own at their own pace. Self-paced learning is fully online and fully asynchronous so students can do the learning whenever and wherever they want.

The following advice help you create good e-learning courses:

- The learning module consists of different resources and activities, for instance ...
 - texts
 - videos
 - images
 - audio files
 - infographics
 - interactive charts and images
 - interactive exercises
 - quizzes
- It is better to have many short activities than a few longer ones
- Make a clear and logical structure
- Describe
 - the learning objectives of each module
 - why it is relevant for the student
 - how the content is related to the other modules
- Use real world cases that the students can relate to
- Talk to the students in an informal conversational tone
- Highlight and repeat the most important points
- Test your e-learning on students – both during and after the creation of it.

Depending on the functionalities of the LMS, e-learning modules can often be created directly in an LMS.

E-learning modules can also be created in dedicated tools like Easygenerator, Articulate Storyline, iSpring and Adobe Captivate. All the mentioned e-learning authoring tools require a paid license.

12. Virtual Reality

The first attempts to create an immersive virtual reality (VR) began more than 50 years ago. However, it is only within the last 5-10 years, the use of VR has spread from entertainment to workplaces, education, and research. This is mainly because VR headsets have become lighter, more flexible, more powerful, and not least more affordable (Lee et al., 2021, p. 11-12).

4 main uses of VR in teaching

The use of VR in teaching can be organized into three main categories:

1. VR is used for simulating environments that are too difficult or expensive to visit in real life. When you put on a VR headset, you step into another reality where a 360-degree view and sounds create a feeling of being there. This can be used in teaching, where students can visit the pyramids, explore the rainforest or experience London in the 1850s. It is also often used for workplace training in a safe environment.
2. VR is used for empowering learners as creative designers and makers. VR introduces students to new 3D and XR creative tools, giving them the opportunity to express themselves in new ways. Both when they make new creations inside a virtual world, and when they create content or designs to be used in virtual reality.
3. VR meeting platforms like MeetinVR and Facebook's Horizon Workrooms are used as classrooms where teachers and students meet for learning sessions. These platforms do not contain any teaching content but work as an alternative to video conferencing tools like Teams and Zoom. Thanks to the immersive all-encompassing reality, VR can create a feeling of physical closeness and a sense of presence- even if the people you meet in VR are hundreds of kilometres away.

Using VR meeting platforms as a classroom

The use of VR meeting platforms as alternatives to video conferencing tools like Teams and Zoom has both advantages and disadvantages:

Advantages

- It really feels like you are in the same room as the other participants.
- You feel more connected in VR than when using traditional video conference tools. It creates a feeling of presence and closeness.
- You can capture more movements than in Teams or Zoom.
- It may support collaboration, knowledge sharing and social networking.

Disadvantages

- One of the most sold VR headsets is Facebook's Oculus Quest 2 but it is not available in all countries.
- VR solutions rarely offer workable solutions to people with various forms of disability.
- VR content requires a strong internet connection.
- The price of VR equipment has dropped greatly but it can still constitute a significant expense when an educational institution wants to purchase VR equipment for an entire class.
- There is a lack of educational content suitable for VR platforms.
- Only a few teachers have the necessary technical ability or practical experience to develop educational material for VR.
- Technical support for VR devices is lacking in most educational institutions.
- Some people experience cybersickness when using VR.
- Headsets are heavy.

Tips for using VR as a classroom

- It is mainly good for creative workshops, brainstorming and discussions.
- It is less suitable for giving lectures.
- Keep the sessions short. After an hour students will need a long break from the headset.
- Students and teachers use avatars that look like them. A serious look is recommended, otherwise, the avatars will draw too much attention.
- The first session in the VR environment should only have the purpose of getting to know the functions.

13. Learning Management Systems

Learning management systems (LMS) play a key role in online learning activities. This is where students find their materials, sometimes the LMS holds tools for cooperation and discussions and often the LMS is used as a communication platform from teacher to students.

Good practice for use of LMS:

- Make clear guidelines for use of the LMS to ensure consistent use of the LMS across classes and teachers.
- Make a good introduction to the LMS for students and teachers. For instance, in written or video format.
- Evaluate the students' user experience of the LMS.
- Provide technical support for teachers and participants.

Characteristics of a good LMS:

- It is reliable.
- It is user-friendly.
- It works on different devices, e.g., on PCs, MacBooks, smartphones etc.
- It is easy for teachers to create courses and content.
- Students can use it for sharing content and starting discussions.
- It supports different learning activities.
- It supports sharing of different file formats.
- It is easy to enrol students in the LMS system.
- The look of the LMS can be adjusted to the learning institution's brand design.

14. Communications

A clear communication between teacher and students is essential in an online learning environment.

- Make a plan for how and when to communicate to the students.
- Send e-mails to the students with clear instructions, ground rules and expectations.
- Invite students to an open communication with you.
- Be clear about where you communicate and make a consistent use of communication platforms across classes and teachers.
- Follow up if students do not participate.

15. Reference List

Christensen, O., Gynter, K. and Petersen, T. (2012): Kortlægning af potentialer og barrierer for udvikling af blended learning-uddannelser på Ingeniørhøjskolen i København, University College Sjælland

Danmarks Evalueringsinstitut (2019 a): Erfaringer med digitalisering af voksen- og efteruddannelser. Afsluttende rapport om udbredelse og kvalitet af e- læring og blended learning på VEU-området

Danmarks Evalueringsinstitut (2019 b): Erfaringer med digitalisering af voksen- og efteruddannelser. Inspirationskatalog med syv bud på tiltag, der kan skabe større kvalitet i digitale læringsforløb

Koch, J. E. (2017): Digital læring. Effektiv læring, videndeling og samarbejde. Akademisk forlag

Lee, M. J. W., Georgieva, M., Alexander, B., Craig, E., & Richter, J. (2021). *State of XR & Immersive Learning Outlook Report 2021*. Walnut, CA: Immersive Learning Research Network. <https://www.immersivelrn.org/stateofxr>

<https://educate.au.dk/en/teaching-with-technology/podcast-and-audio>

<https://educate.au.dk/en/teaching-with-technology/video/guide-videos-in-teaching>

<https://obl.ku.dk/tool/podcast-your-teaching/>

<https://sduup.sdu.dk/index.php?page=digitisation>

<https://tovejs.dk/2020/07/29/online-gruppearbejde-2/>

<https://waterbearlearning.com/mayers-principles-multimedia-learning/>