



Best practices in training delivery

ITU Centres of Excellence (CoE) Virtual Global Meeting 5 – 6 May 2021

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Agenda

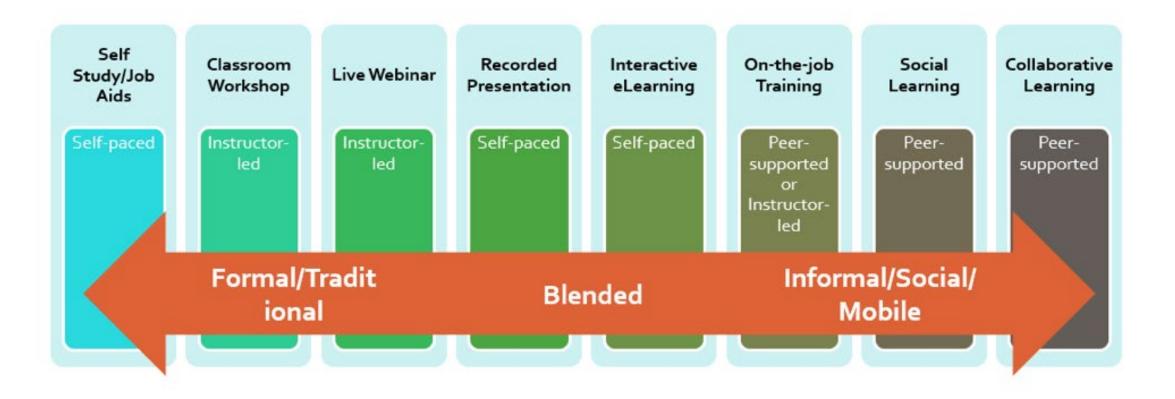
Training delivery methods

How do trainers reinvent good classroom practice (physical and virtual)? What can trainers do to create a great learning experience for face-toface training?

What can trainers do to make online training attractive and more interactive?

Deliver training

Training delivery methods



Training delivery methods

Classroom or face-to-face course

- Course in which all the sessions of the session are given in the physical presence of the students and the teacher
 - Physical presence required;
 - Online presence at set time not required.

Face-to-face-hybrid course

- Course composed, in variable proportion, of classroom sessions and distance sessions (synchronous or asynchronous)
 - Physical presence required;
 - Fixed-time online presence required in some cases.

Distance-hybrid course

- Distance course composed, in variable proportion, of synchronous distance sessions and asynchronous distance sessions
 - Physical presence not required;
 - Fixed-time online presence required in some cases.

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Training delivery methods

Asynchronous distance course

Synchronous distance course

Distance course that offers activities that the student performs at their own pace, within a defined schedule. The student is supported by a teacher and in interaction with his cohort

- Physical presence not required;
- Online presence at set time not required.

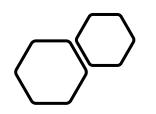
Distance course which offers, every week of the session, virtual classroom activities at a fixed time and in real time. The sessions are recorded and broadcast later

- Physical presence not required;
- Regular online presence recommended.

Comodal course

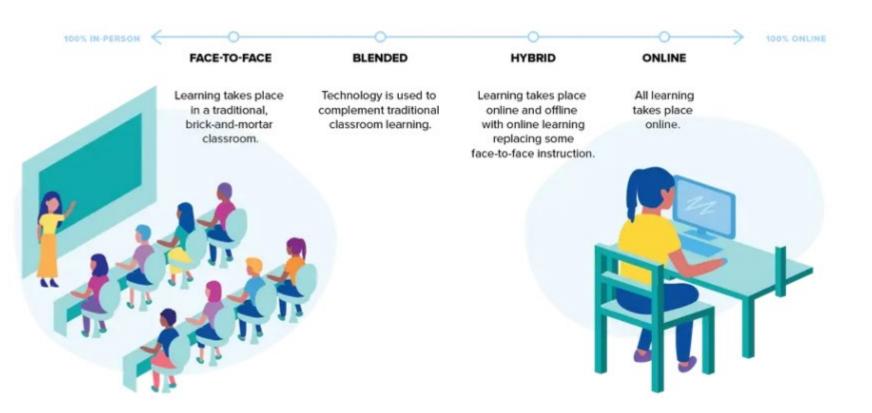
Course in which the sessions are given simultaneously in class and at a distance. The student chooses each week the distribution method that suits him

- Optional physical presence;
- Optional fixed time online presence. 6



Synchronous teaching

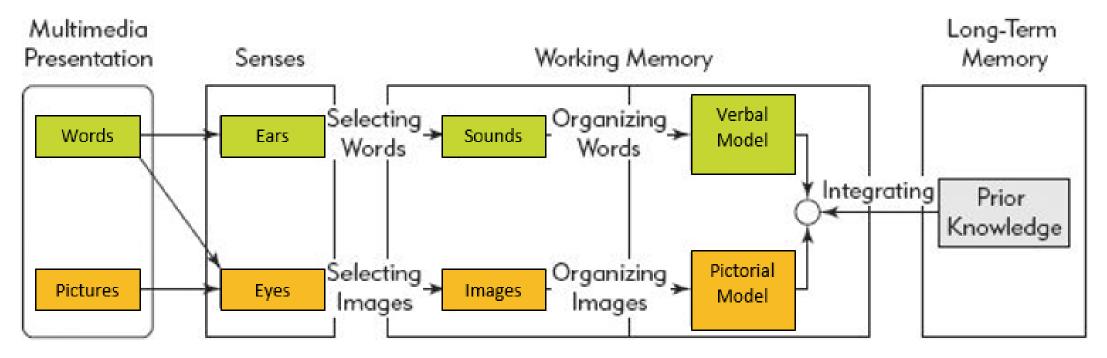
- FACE TO FACE
- BLENDED
- HYBRID
- ONLINE



How do trainers reinvent good classroom practice (physical and virtual)?

Text and images

Cognitive Theory of Multimedia Learning



-- Clark & Mayer, 2011

Audio and video content

- Audio capsules as an educational tool
- Being simple and quick to produce, the audio capsules are a good starting point towards empowering media coverage of online training content
- Nowadays, almost all computers and mobile devices have built-in applications to create them
- Preparation
- Recording
- Editing
- Diffusion

For recording and editing:

- Audacity
- <u>Windows Voice</u> <u>recorder</u>
- <u>QuickTime Player</u>

For diffusion

- <u>SoundCloud</u>
- Vocaroo

Multimedia content

When using multimedia resources to support learning, it is important to consider **cognitive load**.

Cognitive load theory suggests that memory has several components. First, sensory memory transiently collects information from the environment. This information is selected for temporary storage and processing in **working memory, which has a very limited capacity.**

The processed information is ultimately encoded in long-term memory. Since working memory is limited, the student must be selective in the information that comes from sensory memory. This has very important implications when using multimedia educational resources.

In order to minimize the extrinsic cognitive load while considering the intrinsic cognitive load of the material covered, it is important to carefully structure the material. Since working memory is limited, it is important to stimulate it so that it can accept, process and send to long-term memory only basic information.

Offer interactive activities

"research has unequivocally shown that students learn best when they are active and engaged in their learning" (Bates, 2019)

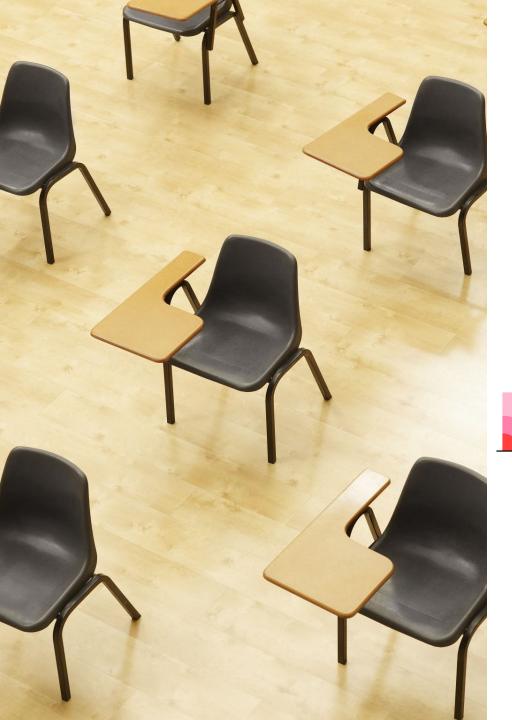


Benefits of interactivity

- Verify students' prior knowledge (eg survey);
- Break the monotony of a lesson and rekindle attention (eg ad hoc questions);
- Punctually diverting the attention of students, in order to take a break (eg image with clickable areas integrated into text);
- Work on a specific notion (eg in a simulation);
- Support student engagement by keeping their interest and motivation;
- Promote retention of acquired knowledge (eg quiz, ideally repeated at intervals);
- Foster the development of high-level skills (Metiri Group, 2008; eg in an interactive case study).

Tools for interactivity

Interaction tools	LMS	Videoconferencing	Cloud
Announcement (news)	х		
Blog	Х		Blogger, WordPress
Instant message	Х	Х	MS Teams, Skype, Remind
Email	Х		Gmail, Outlook Live
Audio-video exchange		X	MS Skype, Google Hangouts, Apple Facetime, Facebook Messenger
Emoticons, raised hand		X	
Screen sharing		Х	AnyDesk, Teamviewer
Survey	Х	Х	Polldaddy, Poll Everywhere, Kahoot
Whiteboard	Х	X	Miro, Explain Everything, Microsoft Whiteboard



Use of voting boxes



Mentimeter



Equip students for collaborative work

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- In the context of a distance course, collaborative work makes it possible to move from "one set" to "all together" by producing knowledge or a common artefact.
- For collaborative work to be beneficial, it must be recognized that:
- The teacher is responsible for equipping the students;
- The teacher must value the sharing of experiences, methodology and tools.

Collaborative work tools

Organizational tools

- Meeting planning (Doodle, Google Calendar, Outlook, etc.)
- Project management (Teams, Slack, Google Tasks, etc.)

Communication tools

- Chat (Messenger, Skype, etc.)
- Video conferencing (Zoom, Teams, Google Meet, Skype, etc.)

Editing and authoring tools

- Collaborative writing of documents (Google Docs, Office 365, etc.)
- Whiteboard (Teams, Google Jamboard, etc.)
- Concept map (Mindomo, Bubbl.us, Coggle, etc.)

Sharing and repository tools

• Sharing and deposit (OneDrive, iCloud, ownCloud, Google Drive, Dropbox, etc.)

Invite and prepare students for a synchronous course

- It is suggested that you write an email to all your students a few days before a remote meeting.
- It can also be useful to provide the netiquette that prevails in the course up front, before the meeting. This is a reminder of how to behave in a synchronous classroom.



Netiquette example

NETIQUETTE FOR ONLINE STUDENTS



ARIZONA STATE UNIVERSITY



BE SCHOLARLY

Do: Use proper language, grammar, and spelling. Be explanatory. Justify your opinions. Credit the ideas of others; cite and link to scholarly resources.

Avoid: Misinforming others when you may not know the answer. If you are guessing about something, clearly state that you do not have all of the information.



BE RESPECTFUL

Do: Respect privacy. Respect diversity and opinions that differ from your own. Communicate tactfully, and base disagreements on scholarly ideas or research evidence.

Avoid: Sharing another person's professional or personal information.



BE PROFESSIONAL

Do: Represent yourself well at all times. Be truthful, accurate, and run a final spell check. Write in a legible, black font, and limit the use of emoticons.

Avoid: Using profanity or participating in hostile interactions (flaming).

BE POLITE

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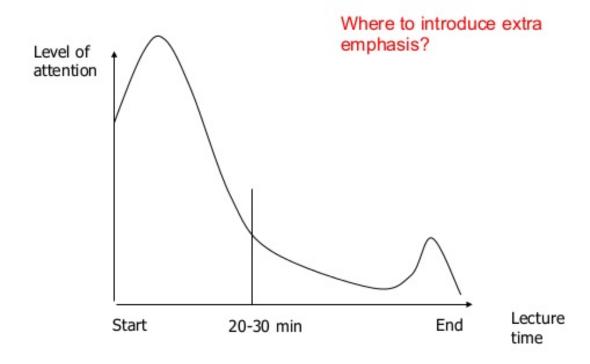
Do: Address others by name or appropriate title, and be mindful of your tone. Be polite as you would in a face-to-face situation.

Avoid: Using sarcasm, being rude, or writing in all capital letters (shouting). Written words can be easily misinterpreted, as they lack facial expression, body language, and tone of voice.

Capture the attention of your audience



Attention curve (Bligh 1971)



Capture the attention of your audience

Integrate activities and engage students at certain intervals.

In some videoconferencing tools, a functionality to create sub-groups is available.

This allows you to create workshops where students can get involved in an activity with some of their colleagues.

Practical advices

- Be brief
- Prepare yourself well
- Give structure
- Prepare the students
- Give short homework before and after, and demand that it be submitted to you
- Use the online resources available

Kirschner, P. A. (2020, 30 mars). Tips for effective teaching if you have to teach at a distance <u>https://www.kirschnered.nl/posts/Tips_for_effective_teaching_if_you_have_to_teach_at_a_distance</u>

What can trainers do to create a great learning experience for face-toface training?





Pedagogical methods

Design the course syllabus in advance and present it to students during the first session of the course

Use one of the following teaching methods:

- 1. Classroom Feedback Techniques (CRT)
- 2. Project-based learning (PBL)
- 3. Reverse class (RC)
- 4. Simulation (serious game)

Classroom Feedback Techniques (CRT)

- At the start of the course, probe for prior knowledge or misconceptions of learners that may impact assimilation or adherence to the course.
- Take a 2-3 minutes break to prompt questions, find application examples, allow learners to compare their personal note taking.
- At the start or end of a session, have learners list the key words for the topic of the session.
- Ask a question with answer on paper to make learners aware of the most important learning they have achieved



Project-based learning (PBL)



This is a teaching method that fits into the class of active pedagogies, so we find there the classic ingredients of any active pedagogy:



Proposal of a situation-problem;



Students are put into teams;



They are provided with resources (it is the teacher responsible for the PBL who chooses the necessary resources);



They are asked for a production to provide (the main thing here is the acquisition of the learning objectives and not the production itself). It is through solving this problem that students acquire the targeted knowledge and skills.

Reverse class (RC)

The reverse classroom is a mindset, a way of rethinking face-to-face time with students in order to optimize it.

Its interest is:

- outsource the transmissive part that previously took place during lessons.
- to use the free face-to-face time with students so as to support them in the "difficult" part, that of learning.

Serious games

A serious game or applied game is a game designed for a primary purpose other than pure entertainment.

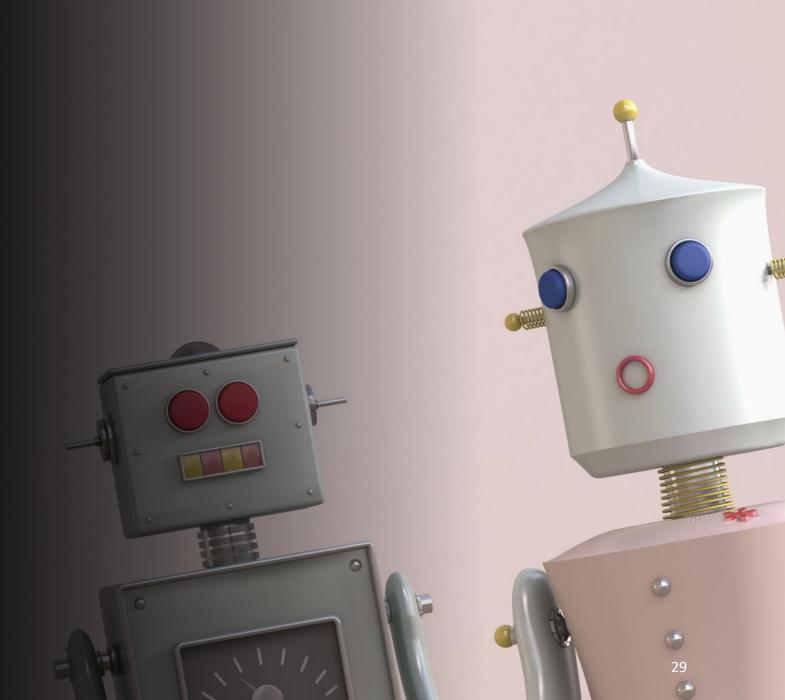
The "serious" adjective is generally prepended to refer to video games used by industries like defense, education, scientific exploration, health care, emergency management, city planning, engineering, and politics.

Serious games are a subgenre of serious storytelling, where storytelling is applied "outside the context of entertainment, where the narration progresses as a sequence of patterns impressive in quality ... and is part of a thoughtful progress"

The idea shares aspects with simulation generally, including flight simulation and medical simulation, but explicitly emphasizes the added pedagogical value of fun and competition



What can trainers do to make online training attractive and more interactive?



INSTRUCTOR PRESENCE

Establish teaching presence early & often:

Post announcements, appear on video, & participate in discussions

 Show your personality, passion & expertise

REAL WORLD APPLICATIONS

Motivate students by making a real world connection:

 Show students how they will apply what they are learning

TEACH FOR ONLINE STUDENTS

Orient students to the online course:

- Break learning into smaller chunks. Establish a pattern of activity & due dates
- Describe expectations for online participation, communication & netiquette
- Provide technical support
 information



Help students dive straight into the content by providing them with:

· Detailed syllabus

CLEAR

EXPECTATIONS

INSTRUCTOR

PRESENCE

REAL WORLD

APPLICATIONS

TEACH FOR

ONLINE

STUDENTS

- Due dates & schedule
- Clear assignment directions

BEST

PRACTICES

FOR

TEACHING

ONLINE

LEARNING OBJECTIVES

Alignment matters! Be sure that:

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LEARNING

OBJECTIVES

PROMPT

FEEDBACK

ENGAGE STUDENTS

- · Course content aligns with objectives & assessments
- Extra content not directly supporting the learning objectives is removed or made optional

PROMPT FEEDBACK

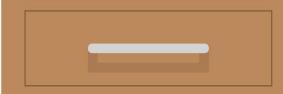
Provide feedback to improve student outcomes:

- Reinforce important materials, concepts, and skills
- Provide timely feedback students can apply during the course

ENGAGE STUDENTS

Quality interaction between students is a sign of a successful class:

- Create educational experiences for students that are challenging, enriching and that extend their academic abilities
- Provide students with opportunities to interact with peers, such as through discussions & group work



Andrew Salcido and Jessica Cole. "Best Practices for Teaching Online." *TeachOnline*, 22 Aug. 2019, teachonline.asu.edu/2018/09/best-practices-for-teaching-online/.

Thank you!