# EDUdig

EDUdig
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## Examples of assessment alternatives

August 4, 2023
Categories: Assessment types
Tags: Expert

There are alternatives to the final exam that students can do.
For example, students could:

- solve dilemmas in a case study,
- summarise a course reading by writing a policy brief,
- create a digital artefact as a stand-alone assessment or to complement their essays,
- create a concept map as a visual representation of the connections between concepts they have learned,
- produce a fact sheet – a one-page document containing key information on a topic,
- undertake a flexible, competency-based assessment, choosing their preferred method of assessment to demonstrate how they have met the learning outcomes of the course,
- produce a poster session (with peer review)

See more information

ℹ — More information
This guide (Elkhoury, 2022) supports educators in the creation and execution of alternative assessments. It commences with segments dedicated to Best Practices and Accessibility Considerations. Afterward, it presents 33 distinct alternative assessment options, each with its individual page. Every page provides a comprehensive account, outlining the description, advantages, challenges, and potential solutions of the particular assessment.

Guide-to-alternative-assessment-2.0.pdf

# e-handbook post 2

March 29, 2023

Categories: ehandbook chapter 1, ehandbook chapter 2

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# e-handbook post 1

March 28, 2023
Categories: ehandbook chapter 1

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# Programme

March 17, 2023
Categories: Uncategorized

## EDUdig Erasmus+ Project Closing Conference

**24 and 25 April 2023**

▼ **24 April 2023**

| **EDUdig 1st Day session** | | |
|---|---|---|
| **From 08:30** | **Registration** | Seminar room **Building D** |
| **09:00 – 09:20** | **Welcome & EDUdig project presentation**<br>Adrijana Krebs – FH OÖ | Seminar room |
| **09:25 – 10:10** | **Workshop on EDUdig content collection (IO1)**<br>*Workshop concerning fields of application and practical use of EDUdig content collection.*<br><br>Adrijana Krebs, Tanja Peherstorfer – FH OÖ | PC room |
| **10:10 – 10:25** | **Coffee break** | |
| **10:25 – 11:55** | **Workshop LAUREA,**<br>*xxx* | |
| **12:00 – 12:45** | **Lunch break** | |
| **12:45 – 14:15** | **Workshop on COIL: an onboarding story** | |
| **14:15 – 14:25** | **Coffee break** | |
| **14:25 – 15:30** | **Conculsion and exchange** | Seminar room |

▶ **25 April 20231**

# How to evaluate group work

December 22, 2022
Categories: Feedback and guidance
Tags: Expert

How to evaluate group work

Source: How to Evaluate Group Work, Center for Teaching Innovation, Cornell University, URL: How to Evaluate Group Work | Center for Teaching Innovation (cornell.edu)

| **Example of a Group Work Assessment Rubric** | | | | |
|---|---|---|---|---|
| **Skills** | **4 Advanced – exceeds expectations** | **3 Competent – meets expectations** | **2 Progressing – does not fully meet expectations** | **1 Beginning – does not meet expectations** |
| **Contributions & Attitude** | Always cooperative. Routinely offers useful ideas. Always displays positive attitude. | Usually cooperative. Usually offers useful ideas. Generally displays positive attitude. | Sometimes cooperative. Sometimes offers useful ideas. Rarely displays positive attitude. | Seldom cooperative. Rarely offers useful ideas. Is disruptive. |
| **Cooperation with Others** | Did more than others. Highly productive. Works extremely well with others. | Did own part of workload. Cooperative. Works well with others. | Could have shared more of the workload. Has difficulty. Requires structure, directions, and leadership. | Did not do any work. Does not contribute. Does not work well with others. |

| | | | | |
|---|---|---|---|---|
| **Focus, Commitments** | Tries to keep people working together. Almost always focused on the task. Is very self-directed. | Does not cause problems in the group. Focuses on the task most of the time. Can count on this person. | Sometimes focuses on the task. Not always a good team member. Must be prodded and reminded to keep on task. | Often is not a good team member. Does not focus on the task. Lets others do the work. |
| **Team Role Fulfillment** | Participates in all group meetings. Assumes leadership role. Does the work that is assigned by the group. | Participates in most group meetings. Provides leadership when asked. Does most of the work assigned by the group. | Participates in some group meetings. Provides some leadership. Does some of the work assigned by the group. | Participates in few or no group meetings. Provides no leadership. Does little or no work assigned by the group. |
| **Ability to Communicate** | Always listens to, shares with, and supports the efforts of others. Provides effective feedback. Relays a lot of relevant information. | Usually listens to, shares with, and supports the efforts of others. Sometimes talks too much. Provides some effective feedback. Relays some basic information that relates to the topic. | Often listens to, shares with, and supports the efforts of others. Usually does most of the talking. Rarely listens to others. Provides little feedback. Relays very little information that relates to the topic. | Rarely listens to, shares with, or supports the efforts of others. Is always talking and never listens to others. Provides no feedback. Does not relay any information to teammates. |

| | | | | |
|---|---|---|---|---|
| **Accuracy** | Work is complete, well-organized, error-free, and done on time or early. | Work is generally complete, meets the requirements of the task, and is mostly done on time. | Work tends to be disorderly, incomplete, inaccurate, and is usually late. | Work is generally sloppy and incomplete, contains excessive errors, and is mostly late. |

# Challenges in collaborative learning

December 12, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Expert, Integrator

A collaborative learning context can be challenging for learners and for educators. In the literature are the following issues identified as challenges in collaborative learning: communication, cooperation and collaboration, leadership, feedback, motivation and technical or organisational problems.

In this document we recognize those challenges and offer a possible reaction: Challenges in collaborative learning

# Holistic collaborative learning

December 12, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Expert, Integrator

A collaborative learning context, where all aspects and elements work together to enable a successful learning experience requires a holistic approach. It starts with defining the goals that are to be achieved and goes on with thoroughly selecting topics that are to be included, describing the milestones of the learning process, and putting in the spotlight the collaboration, reflection, and feedback. The students' readiness (Orooji & Taghiyareh, 2015) to learn in a collaborative setting, where they undertake an active role has an important influence on the development of the learning context and its acceptance.

See more in planning guide: Holistic collaborative learning experience

ℹ — More information

Orooji, F., & Taghiyareh, F. (2015). Supporting participants in web-based collaborative learning activities from a holistic point of view: a tale of seven online and blended courses. *Journal of Computers in Education*, *2*(2), 183-210. Supporting participants in web-based collaborative learning activities from a holistic point of view: a tale of seven online and blended courses | SpringerLink

# Internal Blog

December 6, 2022
Categories: Oral and written communication (digital & hybrid)
Tags: Integrator

Blogs are a very simple form of communication. They help keep staff, students, parents, and others up to date with the latest news. By regularly posting about university news, new teachers, general conditions for studying and other general information, everyone can keep up to date. An internal blog helps to create more transparency, internal and external. The blog acts as a news hub.

Corporate blogs can be run under their own domain or integrated into an existing website. If a website already exists, the blog can be implemented relatively easily by creating new sub-pages. If a new domain (website) has to be created, it makes sense to use existing modular systems such as WordPress.

💼 – Tools
There are many different modular systems that enable the creation of a blog – here is a selection

- WordPress
- Wix
- Jimdo

# Campus Management Systems (CMSs)

December 6, 2022
Categories: Oral and written communication (digital & hybrid)
Tags: Integrator

CMSs are digital platforms (IT systems) for the administration, documentation, and organisational communication of (higher) education institutions. CMSs are used to map organisational business processes related to the student life cycle (student, course, and exam administration, etc.) as well as other areas of responsibility for university administration. Through CMSs, the processing and presentation of study, teaching or exam-related information is increasingly carried out in the sense of the e-campus through internet-based university portals with self-service functions.

The scope of services of the modularly structured CMSs from different providers varies considerably.

CMSs enable internet-based organisation, processing, and communication of education-related information by students, teachers, or employees, based on a differentiated system of rights.

Core applications of CMSs comprise (but are not restricted to): Application and admission process; Student administration; Modelling of study programs and examination regulations; Event planning (including creation of the course catalogue as well as the regular and individual timetables); Classroom management; Participant management (registration and deregistration, admission and distribution to courses and exams); Course coordination (including planning the semester program and ensuring that it is possible to study); Exam management (e.g. booking of grades, crediting of achievements, administration of theses); Organisational data management (e.g. building and lecture hall plans, e-mail and telephone directory of the faculties, institutes, departments, employees, etc.).

CMSs are also used to map administrative processes in the areas of human resources, accounting, controlling or computer-aided facility management (CAFM). While differentiating the requirements at the universities, additional functions such as alumni administration and marketing, course evaluation, internship management or non-overlapping timetable planning are included in the range of services of established systems.

— Tools
Among the available Campus Management Systems (CMSs) are the following (choice):

- AcademyFIVE
- CampusNet
- CAMPUSonline
- CAS Campus
- FH Complete
- HISinOne
- Salesforce Education Cloud
- SAP

# Text, audio, and video chat

December 6, 2022
Categories: Oral and written communication (digital & hybrid)
Tags: Beginner

The original form of Internet chat is pure text chat, in which only characters can be exchanged. Depending on the used technology, a sound and/or video track can now be added or replace the text chat. One then speaks of audio chat or video chat.

From a technical point of view, there are mainly four types of chat today:

- Internet Relay Chat (IRC) requires its own chat server, which is usually networked with one another, and client software that is either installed on the computer of the person chatting or started via a Browser (e.g., Java Web Client).
- The Web Chat takes place directly in the web browser with usually no additional software required.
- In the case of Instant Messaging, the chat is not usually conducted in a public chat room, but only between those who have identified themselves as possible conversation partners using the appropriate software.
- Chatting via e-mail with Chat over IMAP (Internet Message Access Protocol) (COI) extends the SMTP (Simple Mail Transfer Protocol) and IMAP concepts to include chat functions, which are used via apps (e.g., Delta Chat; OX COI).

IRC and Instant Messaging usually includes additional functionalities such as creating conversation logs ("chat logs") or transferring files and hyperlinks. In IRC and in Web Chats, the exchange is mostly organized in chat rooms or channels dedicated to specific topics.

Text-based dialogue system that allow chatting with a technical system also exist. Such chatterbots, chatbots, or bots for short, can also be used in conjunction with an avatar.

There are also chatbots that, like IRC services, only respond to special commands. They can serve as an interface to services outside of the chat, or they can only offer functions within their chat room (e.g., greeting new chatters with the joke of the day).

Today, chatbots are mostly accessed through digital assistants such as Google Assistant and Amazon Alexa, via messenger apps such as Facebook Messenger or WhatsApp, or via organizational tools and websites.

🧰 — Tools

- Cisco Webex
- Delta.chat
- Discord
- Facebook
- Facebook Messenger
- Gadu-Gadu
- Google Hangouts
- Messages/iMessage

- Microsoft Teams
- PowWowNow
- Signal
- Skype
- Threema
- WhatsApp
- Zoom

# Students creating podcasts

November 21, 2022
Categories: Fostering creativity, criticality
Tags: Expert

Students creating podcasts as interviews is an engaging activity that can be performed. In this collaborative learning setting, the students are engaged in the whole process from the beginning, i.e., from the topic definition, searching interview partners, taking and recording the interviews, preparing the material for podcast, and sharing the finished product. Finding an interesting topic can be the most challenging part of this setting – a topic that can truly engage the students with its authentic and practice-relevant (interdisciplinary) approach will let the students go outside the classroom and learn from the good practices.

- Create groups of students
- Offer detailed description of the assignment
- The way it works – provide technical instructions
- Offer a list of example-questions for the interview
- Create flyer
- Provide templates
- Create a channel for the podcasts
- Think about follow-up: use the publish podcasts as learning content for other groups of students

— Tools
Publish podcasts:
Podbean
Spotify
Instagram

Video or audio recording tools – use conferencing tool of your institution

— More information
Practical planning guide Creating a podcast

# Digital escape room

November 21, 2022
Categories: Fostering creativity, criticality
Tags: Expert

Digital escape room in education is collaborative activity where students need to solve different puzzles, unlock codes to exit the room. Usually there is a dramatized environment to raise the excitement of the game and students have limited time to solve the clues, that all lead to the meta puzzle. After solving the last (meta) puzzle comes the game to the end.

— Tools

Kahoot!
Edpuzzle
Crossword generator
Google Sites
MS Forms

— More information

Escape education: A systematic review on escape rooms in education – ScienceDirect (Veldkamp, A., van de Grint, L., Knippels, M. C. P., & van Joolingen, W. R. (2020). Escape education: A systematic review on escape rooms in education. Educational Research Review, 31, 100364.)

Online Approaches for Implementing a Digital Escape Room with Preservice Teachers – Learning & Technology Library (LearnTechLib) (Neumann, K. L., Alvarado-Albertorio, F., & Ramírez-Salgado, A. (2020). Online approaches for implementing a digital escape room with preservice teachers. Journal of Technology and Teacher Education, 28(2), 415-424.)

Practical planning guide Digital escape room in collaborative learning

# Creating content and scripts using markup language

November 21, 2022
Categories: Content presentation
Tags: Expert, Innovator

Digital scripts based on the Markdown markup language offer creation of digital teaching materials with different content types. It is possible to embed video, audio files, images, mathematical and chemical formulas, and interactive content. Markdown files can be edited in a text editor such as VSCode and exported in various formats such as pdf, docx, html, pptx, depending on the content types of the scripts and desired usability.

— Tools
Quarto: https://quarto.org/docs/get-started/
VSCode: https://code.visualstudio.com/

# Planning feedback loops

November 18, 2022
Categories: Providing feedback
Tags: Expert

When learning events and feedback work together recursively in a continuous loop, the learners' learning is known to be significantly impacted. Thus, it is critical to plan it in advance and inform learners as to when, how and why such feedback will be conveyed. These feedback loops are not the property of the teacher; other agents can intervene, such as learners themselves or external stakeholders.

Prior to teaching, feedback purposes and format should be negotiated with the learners, so that everybody is equally held responsible for "the rules of the trade". This way both learners and the teacher not only know when to act but also what is expected from them.

ℹ — More information
Starting Student Feedback Loops | Edutopia
Using Feedback Loops to Impact Student Learning – The Tech Edvocate

# Learner feedback

November 18, 2022
Categories: Providing feedback
Tags: Expert

It is widely recognised that learner feedback is an important source of information to develop recommendations for action and thus support further development and improvement of learning conditions, processes and achievements of intended learning outcomes. Learner feedback is particularly valuable because it opens the opportunity to make real-time, short- and long-term, adjustments to the learning and teaching strategies, pre-conditions and processes. Learners tend to have a wide-ranging view of how educators structure, monitor and facilitate learning activities, but their feedback can also highlight aspects that only need more clarification. This allows educators to take action to improve and help (re)centre the learning process towards the learners (their learning profiles and needs (shift from teaching to learning).

It is easy to collect and analyse learner feedback, for instance, using the “Feedback activity” in Moodle, which allows educators to create and conduct surveys to collect feedback or using (Classroom Response Systems (CRS), e.g., Kahoot, Socrative, etc., in class or in digital context. Examples of questions can be:

- Was the teacher competent? Was the teacher well prepared?
- Which activities in the course did you enjoy the most/least?
- What is one change of the course that you would like to see?
- Do you have supportive classmates?
- Did the course fulfil your expectations?

💼 — Tools
Feedback activity – MoodleDocs

# Feedback agents

November 18, 2022
Categories: Providing feedback
Tags: Expert

The most common feedback agent are the teachers, since they can explain what is being done (in)correctly. Nevertheless, it is often easy for other learners to stress the strengths of their colleagues' work and, sometimes, discussions between learners can be more productive than the teacher's (one-way) explanation to redirect and align their peers' learning to better attain a learning goal.

Teachers should equate the possibility of distributing the responsibility to provide feedback and include, e.g., peer feedback in the design of learning activities. In some cases, including elements from the surrounding/international community can also be beneficial, i.e., external stakeholders can be invited to provide specialised feedback; thus, bridging academic learning with real contexts.

ℹ — More information
Types of feedback

# Effective feedback

November 18, 2022
Categories: Providing feedback
Tags: Integrator

Feedback refers to information provided regarding performance aiming at improvement and it can be structured and planned beforehand, or unstructured and spontaneous. Teachers can use feedback to evaluate/assess performance against a set of criteria and respective indicators, but also to provide guidance for learning growth (including knowledge, competences and attitudes), and (very important) to recognise commitment and accomplishment (i.e. for appreciation).

In practical terms, collaborative digital tools like Google Drive or Padlet.com can be used by teachers to comment on the learner's work as it is developed (text-based or audio-based feedback). Other tools as Perusall.com allow for in-depth discussions, by collectively annotating text-based documents in threads

— More information
The Art of Feedback: Giving, Seeking and Receiving Feedback

— Tools
Padlet Tutorial – How to Get Started Guide – YouTube
PERUSALL Tutorial: Introduction to the platform – YouTube

# Artificial intelligence in learning

November 18, 2022
Categories: Data analytics in education
Tags: Innovator

Artificial intelligence (AI) is the ability of a computer, or a robot controlled by a computer to do tasks that are usually done by humans because they require human intelligence and discernment.

ℹ — More information
Artificial intelligence in education IEEE Xplore Full-Text PDF
Artificial intelligence as an effective classroom assistant
How AI in the classroom is supporting education (perle.com)

# Machine learning

November 18, 2022
Categories: Data analytics in education
Tags: Integrator

Machine Learning is a branch of artificial intelligence (AI) that allows software to learn from experience. It enables reasoning and decision making without of human interaction, i.e., based on statistical models to develop predictions. In our daily lives, machine learning is used, for instance, by TV providers to recommend movies or shows to clients, based on what they have watched earlier.

Educators can resort to various tools based on machine learning. Google Maps uses machine learning to predict parking, traffic, etc. based on geodata from users for training models. Another popular possibility that combines natural language processing and machine learning and can be used in different areas is Grammarly, which not only reviews your spelling, grammar and punctuation but also checks for plagiarism and helps users with style. Its Machine Learning algorithms are continuously being improved based on the users' actions.

— Tools
Google maps
Grammarly

— More information
Machine learning in education – a survey of current research trends
15 Machine Learning in Education Examples

# Visual data analysis

November 18, 2022
Categories: Data analytics in education
Tags: Innovator

Visual data analysis refers to highly advanced computational methods and graphics to make complex datasets easier to explore and visualize, revealing strong patterns and trends. It combines data analytics and data visualization techniques, given that these techniques help to see the big picture or to identify how datasets relate to each other.

Educators can, for instance, export user access reports from LMSs and use digital tools for visual data analysis. This can be very important to better understand the learners' experience and to improve teaching and learning strategies. Examples of tools that educators can use are:

- Gapminder – used to identify misconceptions about important global trends based on reliable data to develop easy to understand teaching materials to rid people of their misconceptions;
- IBM Many Eyes – used for uploading, visualising, and discussing big data;
- FlowingData – used to make great charts easier to analyse through a collection of visualization resources (e.g., map-based clouds, charts, and graphs).

💼 — Tools
Gapminder
IBM Many Eyes
FlowingData

# Digital track records

November 18, 2022
Categories: Data analytics in education
Tags: Integrator

Track records are information about a learner's progression along a given time span, namely dealing with performance, learning, development, marks, and attendance. Dealing mainly with the past, it can be a fundamental predictor of the learner's future achievements, and a fundamental instrument for the teachers to identify at-risk learners and indicate how the process may be improved.

Educators can enable the activity completion tool in the course settings of modules/activities in LMSs. They may also decide if completion is going to be automatic (e.g., based on assignment submission) or if learners are supposed to do it manually. Course reports will then include the learners' progress based on activity and participation reports, and be available to both learners and educators.

Track records can also be used to award completion badges to engage learners. Educators can easily create a learning badges with digital tools such as: Canva, MakeBadg.es or Open Badges. Using an LMSs, digital badges can be personalised and (manually or automatically) assigned for different stages of the course for different levels of progress.

— Tools
Tracking progress – Moodle
Badge logo maker – Canva
MakeBadg.es
Open Badges
Badges – Moodle
How to Create & Assign Badges in Canvas

# Digital activity checklists

November 18, 2022
Categories: Data analytics in education
Tags: Beginner

Checklists are a way to manage the learning workload and ensure that tasks get done. Activity checklists can help leaners to navigate through tasks at their own pace and according to their own needs. They also help teachers to monitor the learners' progress, and learners to keep track of their own progress. Teachers can ask learners to check the items in a checklist throughout the learning process, which helps them to develop self-evaluation competences and allows the teacher to intervene timely.

Educators can use checklists in LMSs, such as Moodle or Canva, for instance, to:

- List the items that learners should complete (individually or in group), which can be linked to activities and resources;
- Enable a progress bar showing what learners have completed at a certain moment;
- Allow for both teachers and learners to check-off items;
- Enable learners to add private items and notes to a checklist;
- Define due dates for checklist items.

💼 — Tools
Add a Checklist Activity – Moodle
Turn a Canvas Module into a Student Checklist
Create Checklists Online – Canva

# Educational data mining

November 18, 2022
Categories: Data analytics in education
Tags: Innovator

Educational data mining refers to the area of scientific inquiry focused on data that come from educational settings to discover useful information to better understand the learning process and the settings in which it occurs. It can be used, for instance, to classify and foresee the learners' performance and dropouts as well as the educators' performance.

Educators can use, for instance, MoodleMiner (a Moodle plugin) to perform basic data mining analysis, such as grouping learners by interaction levels, or to predict dropout-prone students.

ℹ — More information
Moodle plugin – Adminer
MoodleMineR v1.0 (hacettepe.edu.tr)
Akçapinar, G., & Bayazit, A. (2019). MoodleMiner: Data Mining Analysis Tool for Moodle Learning Management System, *Elementary Education Online*, *18*(1), pp. 406-415.
http://dx.doi.org/10.17051/ilkonline.2019.527645

# Learning analytics

November 18, 2022
Categories: Data analytics in education
Tags: Expert

Learning analytics refers to the processes of generating, collecting, organizing, selecting, critically analysing, scrutinising and interpreting digital evidence (information and data) on learner activity, performance and progress, to inform and improve learning and teaching. Thus, interpreted evidence is used for feedback and recommendations for action to improve the learning experience and results of the learning processes.

Learning analytics relies on several digital techniques such as, for example, data mining, visual data analysis, machine learning, artificial intelligence, digital activity checklists, digital track records, discussion of track records in forums, collaboration track records in shared documents, achievement rubrics, etc.

The teacher can use learning analytics to better trace the learners' performance, take targeted actions to improve the learners' learning processes, and identify at-risk learners.

ℹ — More information
Learning analytics in a nutshell

# Ipsative assessment

November 18, 2022
Categories: Assessment types
Tags: Integrator

Ipsative assessment is used to compare the learners' results against a second try, instigating learners to set goals and improve their learning – which fully incorporates assessment *as* learning. This two-stage assessment structure teaches learner's that learning is a process and that they should act on feedback for continuous improvement.

Team-based learning is a pedagogical strategy grounded on ipsative assessment. Educators can incorporate ipsative assessment, by defining activities in which, following the learner's individual answers, teams get together to work through the initial problems. A possibility is to define a two-stage testing process based on online quizzes, to which a competition layer (as game-based element) can be added. A user-friendly online tool to operationalise this strategy is Socrative.

This technology-enhanced approach allows for enhancing digital, collaboration and communication competences, through multiple self-assessment and revisions; thus, resulting in improved learning outcomes.

ℹ — More information
6 Types of Assessment (and How to Use Them)
Team-based learning

# Summative assessment

November 18, 2022
Categories: Assessment types
Tags: Integrator

The main aim of summative assessment is to is to measure the learners' progress at the end of the learning process by comparing it against a set standard or benchmark. Some examples of summative assessments are: final project reports; final essays; final oral presentations; end-of-term or midterm exams; etc.

Best practices for educators in summative assessment are:

- To link activities to real-world scenarios;
- To write clear, easy to follow instructions;
- To develop and share a rubric for learners to what is expected of them.

It is important to consider discussing the results with the learners. Given that it is not always possible because this assessment moments tend to occur at the end of the learning progress, there is advantage in having the educator's feedback online, so that learners can identify areas for improvement and (re)adjust their learning strategies. For reports or essays, besides online rubrics, educators can use online review tools.

ℹ — More information
6 Types of Assessment (and How to Use Them)

# Formative assessment

November 18, 2022
Categories: Assessment types
Tags: Expert

Formative assessment is focussed on the learning experience and usually carry no grade. It helps teachers understand the learning process and provides them with information to adjust their teaching strategies accordingly. It involves giving learners regular feedback, which should trigger the learners' action.  Some examples of formative assessments include: portfolios; progress reports; group discussions; short, regular quizzes; etc.

When formative assessment elements are technology-enhanced, educators can resort to automated feedback (in quizzes, for example). Furthermore, when learners are allowed to revisit them, in a pre-determined time or at will, they can also identify areas for own improvement and (re)adjust their learning strategies.

ℹ — More information
6 Types of Assessment (and How to Use Them)
Top 20 Formative Assessment Examples for Teachers That Are Fun and Fast

# Diagnostic assessment

November 18, 2022
Categories: Assessment types
Tags: Integrator

Diagnostic assessment aims at assessing a learner's current knowledge or views on a specific learning topic. It can also address the transversal competences that learners are also expected to have when starting a learning cycle. These can include group work, communication and digital competences. This type of assessment can be used by both educators to determine what learners know and can do in different domains, in order to build on their strengths and address their specific needs. It can also be used by learners as self-assessment resource.

For this purpose, educators can use several test tools to create sets of questions (multiple choice or short answer) in LMSs or use digital quizzes, embedded into or linked to any LMS, for example: Quizlet, Socrative or Google forms.

To integrate the assessment of transversal competences, educators can also adopt more comprehensive approaches that imply the observation of the learners' behaviour and effort, for example, learner interviews or reflections (that can be video-based); classroom discussions (that can be oral or in digital discussion fora; graphic representations (using digital infographics or mind maps).

— Tools
6 Types of Assessment (and How to Use Them)
Quizlet
Socrative
Google forms
Canva
Mindmeister

# Annotated bibliographies

November 18, 2022
Categories: Assessment elements
Tags: Expert

Annotated bibliographies are lists of citations to books, papers, articles, or reports, followed by a brief descriptive, reflective and/or evaluative paragraph – i.e., the annotation. With this type of activity, learners work with the relevance, accuracy, and quality of selected sources.  Key elements of an annotated bibliography are: scope, complete bibliographic information, concise summary of each work, relevant analysis/commentary and content consistency.

Educators can ask learners to use digital tools such as:

- Scribbr's free Citation Generator for the creation and management of annotated bibliography in APA or MLA style. With this tool, learners can generate a formatted annotated bibliography, select the source type, define the main fields, and add their annotations;
- or Bugherd to annotate websites.

🧰 — Tools
What is an Annotated Bibliography?
Scribbr
BugHerd

# Using gradebooks

November 18, 2022
Categories: Assessment criteria
Tags: Expert

Gradebooks are used to manage the learners' grades. Online gradebooks automatically aggregate scores and feedback from Assignments, Activities, and/or Manual grades, which can be easily distributed, allowing learners to view their own grades in individualised reports, anytime and anywhere.

Educators can use the gradebook tools included in LMSs. Given that they can store all information about the learner progress in a course, they can serve as a communication tool between learners and educators in what concerns the track record of the learning progress.

In general, educators can use LMS gradebooks to:

- View assignment submission notifications, as well as assignment details and grades;
- Sort the gradebook by assignment due dates, learner names, scores, etc.;
- Download assignment submissions from learners to grade or view them offline;
- Manually enter or revise learners' grades;
- Automatically calculate total and final grades;
- Notify learners when an assignment has been graded
- View Grade history and revert updated assignment scores to previous scores;
- Download or upload grades;
- Hide grades from learners until they are published;
- Message learners who haven't submitted an assignment yet;

Leave private grading comments for the learner; etc.

ℹ — More information
Moodle 4 Gradebook Navigation & Setup – YouTube
Canvas – Using the Gradebook

# Embedding content into digital environment

November 18, 2022
Categories: Sharing digital resources
Tags: Expert

Embedding is different from linking resources, given that the former implies placing the resource directly in a page not allowing it to exist or be accesses outside that environment. When a resource is embedded into a LMS, learners can view, read or interact with the resource without downloading it or having to go to a different webpage.

For instance, in Moodle, Kaltura is the tool that educators can use to create, publish and distribute multimedia. When the editing area within any LMSs is enabled, educators can select the Kaltura button and embed a media resource. For videos, they have to make sure that the video has captions or to upload a transcript to meet accessibility requirements.

Educators can also choose to enter an embed link (<>). For example, for Google images they can:

1. Open Google Photos;
2. Locate the image they wish to embed;
3. Click the image to open it;
4. Find the 'share' icon in the upper right hand side of the window;
5. Click the 'create link' button;
6. Copy the link and paste it to whichever location they wish.

💼 — Tools
Embedding and Linking Resources in Moodle
How to embed an image onto different sources

# Sharing cloud content

November 18, 2022
Categories: Sharing digital resources
Tags: Integrator

Storing resources in a cloud is very useful. It allows educators and learners to share and access them from anywhere and restore old versions when needed. Some clouds allow users to collaboratively work in a document or to create content collaboration accounts. This way, educators and learners that have permissions can access, share, sync and collaborate on files using any device (mobile or desktop).

Educators can ask learners to share their learning outputs regularly in a cloud or even to develop the work collaboratively in shared documents. Tools that can be used are: Goodle Drive, Dopbox or OneDrive.

The use of this type of tools allows educators to better monitor the learners' work and to provide timely feedback; thus, it can be very important in terms of formative assessment.

— Tools
How To Use Google Drive With Your Online Courses
Goodle Drive
Dopbox
OneDrive

# Creating visual content

November 18, 2022
Categories: Structuring resources
Tags: Expert

Visual content is usually image-based and may include pictures, drawings, diagrams, charts, infographics, videos, photographs and computer-generated designs.

Educators can use several user-friendly creation tools to create learning resources based on image, video, animation, infographics, etc. Examples are:

- Canva – to create, edit and share customised images;
- Fotor – for photo editing, photo effects, and image retouching;
- Pablo – to combine images with text (including filters);
- Photo Collage – to create picture collages automatically, to which text can be added;
- Google Photos – to automatically create short movies and animations with photos uploaded by the user;
- Powtoon – to create resources that may integrate videos and presentations; etc.

Presentation Creation Tools
There are also some tools that can be used to develop personalised elements for the spaces, such as: the Bubbli app, which allows to create 360-degree spherical photos; Vistacreate to personalise logos from templates; etc.

Educators can also integrate the created materials to produce multiformat digital learning resources, or even ask learners to develop multiformat learning outputs, also promoting the development of their creativity,  as well as their communication and digital competences.

💼 — Tools
Canva
Fotor
Pablo
Photo Collage
Google Photos
Powtoon
Bubbli
vistacreate

# Creating online collaborative spaces

November 18, 2022
Categories: Structuring resources
Tags: Expert

Online collaborative spaces are digital environments where learners can develop their individual and collective learning. The design of these spaces should begin with a dialogue between all stakeholders, so that their collaboration needs are fully met.

Educators can choose to use a LMS as online collaborative space, based on the materials and activities that are made available, as well as the use of the discussion forum to support asynchronous communication and the chat synchronous communication. Usually, they can personalise it  and integrate other collaboration tools that learners may feel more comfortable with for video-conferencing, file-sharing, reviewing, collaborative writing, etc. Examples that can be considered are: Padlet and Google drive – for file-sharing, reviewing, collaborative writing; Perusal – for reading or examining and discussing documents; Zoom – for video conferencing; etc.

ℹ — More information
Creating Value in an Online Collaborative Space

# Creating game-based activities

November 18, 2022
Categories: Structuring resources
Tags: Expert

Game-based learning implies using gaming principles and applying them to learning settings to engage learners with educational resources and activities. Game elements can include: badges, rubrics, customised grading scales, competition, etc.

Educators can easily create interactive quizzes, short-answer, jumbled-sentence, crossword, matching/ordering, gap-filling activities, etc. and include one or more of these elements. Socrative, for example, also includes the “space race” tool that allows for including the competition element while learners answer a quiz. Moreover, these activities can be integrated in LMSs and can be stand-alone activities or be integrated with other resources to create a learning unit.

— Tools

Socrative
Kahoot!
Hot potatoes
Games in Moodle

# Creating interactive learning activities

November 18, 2022
Categories: Structuring resources
Tags: Integrator

Interactive learning activities are those that forgo teacher-to-learner communication are require learners to interact with materials and/or other learners; thus, promoting active learning.

Educators can easily create interactive quizzes, short-answer, jumbled-sentence, crossword, matching/ordering, gap-filling activities, etc. Examples of digital tools that can be used are:

- Socrative – to create multiple-choice and short answer quizzes;
- Kahoot! – to create multiple-choice quizzes that can be accessed via a web browser or the Kahoot! App;
- Hot potatoes – to create interactive multiple-choice, short-answer, jumbled-sentence, crossword, matching/ordering and gap-fill exercises for the World Wide Web.

These activities can be integrated in LMSs and can be stand-alone activities or be integrated with other resources to create a learning unit.

💼 — Tools
Socrative
Kahoot!
Hot potatoes
Games in Moodle

# Checking for bias

November 18, 2022
Categories: Open Educational Resources (OERs)
Tags: Innovator

Resources can be biased on a wide spectrum of areas, given that it refers to prejudice in favour of/ against one thing, person or group. Bias is not always explicit and easy to identify.
To check for biased information, educators should start by verifying if the author is not identified, lacks expertise, or does not produce information on the topic consistently. Besides resources should be analysed to verify, for instance, if they:

- are deeply one-sided;
- rely on uncorroborated or unproven premises;
- are highly selective and only present facts that allow for a certain outcome;
- are mainly based on the author's opinion rather than on facts;
- produced for entertainment;
- influence the audience to purchase of something.

ℹ — More information
Identifying Bias
17 Examples of Bias

# Evaluating information source

November 18, 2022
Categories: Open Educational Resources (OERs)
Tags: Expert

Even though educators can easily find on the Internet, it is crucial to evaluate the information sources, i.e. if they are reliable, up-to-date, and unbiased.
Educators should take time to take the time to examine them, for instance, in terms of authority, accuracy, coverage, purpose, bias and timeliness. To evaluate your sources, educators can take into consideration the following questions:

- WHO is communicating the information?
- WHAT does the material contain?
- WHY was the material published?
- WHEN was the material produced?

ℹ — More information
Critical Evaluation of Sources
Evaluating Sources
Evaluating Sources of Information

# Reusing OERs

November 18, 2022
Categories: Open Educational Resources (OERs)
Tags: Integrator

Reusing open educational resources refers to accessing to/downloading materials produced by others (e.g., images, class plan, videos, etc.) and adopting them, with no modifications to the original, for personal development or professional purposes – i.e., using them "as is".

Resources can be reused in its unaltered original format in a wide range of ways (e.g., in class, on a website, in LMSs, etc.). Reusing resources when creating your teaching materials can be a worthwhile activity and can help you save time in the long-term. The use of resources produced by others should respect copyright by including attribution to the original author and other free distribution rights to share, use, and build upon a work that the author has defined.

ℹ — More information
Finding and Reusing CC-Licensed Work
Revise, Reuse and Makeover OER
Reuse "as is" OER Showcase

# Experiential learning

November 18, 2022
Categories: Teaching methods
Tags: Expert

Experiential education is one practice-driven method of teaching. In this method the students focus on their learning process through application, observation and reflection.

One of the key aspects of experiential education is abandoning the concept of theoretical learning. Learning occurs through actions and experiences which require the personal engagement of both teachers and students: debates, panel discussion, press conference, symposium, reflection journals, lab experiments.

ℹ — More information

Online Experiential Learning – Center for Integrative and Experiential Learning | University of South Carolina (sc.edu)

Kolb Experiential Learning Cycle | Wentworth (wit.edu)

# Just in time teaching strategy

November 18, 2022
Categories: Teaching methods
Tags: Expert

Just in Time Teaching, or JiTT, is a model first proposed by Novak, Patterson, Gavrin and Christian (1999) that combines web-based resources that help students prepare outside of class with active learning techniques in the classroom. JiTT uses feedback between classroom activities and work that students do at home, in preparation for the classroom meeting. Applying this method an instructor adjusts class activities and lectures to respond to the misconceptions revealed by assessing students' prior knowledge.

Just-in-time teaching actively involves students in the learning process through a two-step series of learning activities.

In the first step, students complete a set of activities outside of class, some exercises, problems, and submit their work to the instructor. The activities in this step are Warm-Ups, Good-Fors and Conceptual questions (usually a quiz) to motivate students to do the readings.

In the second step, the instructor (often just hours before the next lecture) collects the students' responses and feedback and identifies areas of understanding and misunderstanding to adjust the next lesson so that students can receive specific "just-in-time" feedback on those areas.

This method is good for STAM disciplines but can be used brightly in other subjects as well. It works well with smaller groups of students or with a help of teaching assistant.

ℹ — More information
Just-in-Time Teaching (illinois.edu)
Examples: jittdl.science.iupui.edu/JiTT_RESOURCES

# Demonstration teaching strategy

November 18, 2022
Categories: Teaching methods
Tags: Integrator

This teaching strategy can only be used when the instructor explains the why, how, where, what, and when. The demonstration method involves the instructor demonstrating/performing an operation to help students understand deeply and clearly. The method is adequate for explaining the functioning of a tool or equipment, teaching troubleshooting, performing a certain operation.

ℹ — More information

Online demos can be as effective as classroom teaching – Harvard Gazette
How to Do an Online Teaching Demo – Teaching Nomad

# Seminar teaching strategy

November 18, 2022
Categories: Teaching methods
Tags: Integrator

A seminar is a group meeting (either face-to-face or online) where up to 30 students in the same group participate actively. The teacher is responsible for choosing topics and assigning tasks to individual students and for the design of the group experience. A seminar is an advanced group technique which is usually used in higher education. It refers to a structured group discussion what usually follows a formal lecture or lectures often in the form of an essay or a paper presentation on a topic.

ℹ — More information
Ideas for online seminars – Universität Ulm (uni-ulm.de)

# Independent study or practice

November 18, 2022
Categories: Teaching methods
Tags: Expert, Integrator

Independent study or practice promotes, under supervision, independent development and processing of problems. In such methods, teachers mostly assign the same task to each student to practice or study it from home on their own, and then the other day, teachers evaluate the task and solve the students' queries. This method improves the self-study abilities of the students.

ℹ — More information
Self-regulated learning – EDUdig

# The discussion approach

November 18, 2022
Categories: Teaching methods
Tags: Integrator

The role of a teacher is to introduce disciplined group discussion techniques among students and clear the concept of the topic meanwhile. In this method the class discussion follows a pre-determined set of questions that leads students to certain realizations or conclusions, or to help them meet a specific learning outcome. In the two-way communication method, students are prepared to listen to their fellow's point of view and exchange ideas.

ℹ — More information

How to Make Your Virtual Discussions Engaging, Effective, and Equitable in Eight Steps | Faculty Focus

# Individual training

November 18, 2022
Categories: Teaching methods
Tags: Integrator

An individual training serves the in-depth theory-guided, practice-oriented and discursive examination of selected problems, in which the students are expected to actively acquire knowledge as well as systematically elaborated contributions. Special attention is paid to individual support, advancement and training measures for the students.

💼 — Tools
Using available classroom technologies for communication, reflection, guidance, feedback

# Participatory teaching strategies

November 18, 2022
Categories: Teaching methods
Tags: Expert, Integrator

The teacher explains the key points or the importance of a topic, short inputs about 2-15 minute. After that follows interactive or participating part, activity during the class.

Here some of the activities:

- multiple-choice items
- solving a problem
- comparing lecture notes
- debriefing a mini case study
- pair-compare
- reflection/reaction paragraph,
- concept mapping activities
- correct the error
- compare and contrast
- paraphrase the idea
- answer knowledge and comprehension questions

ℹ — More information
ParticipatoryLearningMethods.pdf (sfyouth.eu)

# Content centred strategies

November 17, 2022
Categories: Teaching methods
Tags: Integrator

The content-centred strategy sets the content, the information, or skill taught by experts in the focus and cannot be changed. The content has priority that both the learner and the teacher have to fit in the subject regardless of the group, interests, or any circumstances.

Tips for implementation of this method:

- Use stimulating content such as video documentaries, short videos.
- Encourage students to find or create their own content on a subject
- Encourage students to participate or to find practical applications or experiment with the topic, showing them the relevance of the content.
- Use authentic content

# Learner centred strategies

November 17, 2022
Categories: Teaching methods
Tags: Expert, Integrator

This strategy moves students away from passive learning in the classroom (seated in desks or behind the screen, receiving instruction directly from the instructor) toward active learning. In active learning students are engaged in activities where they talk about learning, share ideas, and collaboratively participate in problem solving.

ℹ — More information
For active learning strategies see:
Actively engaging learners – EDUdig
Collaborative learning – EDUdig

# Lecturing strategies

November 17, 2022
Categories: Teaching methods
Tags: Beginner

This method is often used for large classes. In this method, the teachers explain the topic: definitions, facts, events, principles and clarify the whole point of the subject or topic with relevant examples and problems. The students are allowed to take notes and ask questions at the end of a lecture. In this method, a teacher is the main role model for the large class.

Activities: Demonstration, modeling, questions (convergent), presentation, slideshow, note-taking

For higher levels see other teaching methods

**— Tools**
Using available classroom technologies, e.g. digital whiteboards, projectors, PCs

**— More information**
Lecturing Effectively | Centre for Teaching Excellence | University of Waterloo (uwaterloo.ca)

# Gamifying the course

November 17, 2022
Categories: Fostering creativity, criticality
Tags: Expert

One of the engaging approaches in learning is introducing gamified elements into learning content. It offers the chances for deeper learning and growth of intellectual skills. The students are engaged in a game, they think strategically and apply the methods and techniques that they are learning and develop skills in problem solving.

The guidance and facilitation during the learning experience is important that students retain, stay organised, see the relevance of learning, and maintain the motivation level.

ℹ — More information
Innovator:
Video games: Using Gamification to Enhance Self-directed, Open Learning in Higher Education

Expert:
Gamification in Moodle course: (PDF) An Attempt for Gamification of Learning in Moodle (researchgate.net)

Practical planning guide Designing gamification for collaborative learning

💼 — Tools
Classroom Jeopardy – Factile
Socrative
Classcraft
Edpuzzle
BookWidgets
JeopardyLabs
Kahoot!
Badge Maker | Adobe Express
Badge Maker

# Using badges in self-paced learning

November 17, 2022
Categories: Self-regulated learning experience
Tags: Expert

Digital badges are records of learner achievement: skills, knowledge, and competences. These badges can address one block in a course, a module or set of activities and content referring one topic. The educators can customize the badges depending on a specific requirement that the learners have to fulfil in order to be able to receive it. Using badges can motivate students, help them to achieve milestones and encourages self-paced learning.

ℹ — More information

Learning Design and Technology Digital Badges | Purdue Online

💼 — Tools

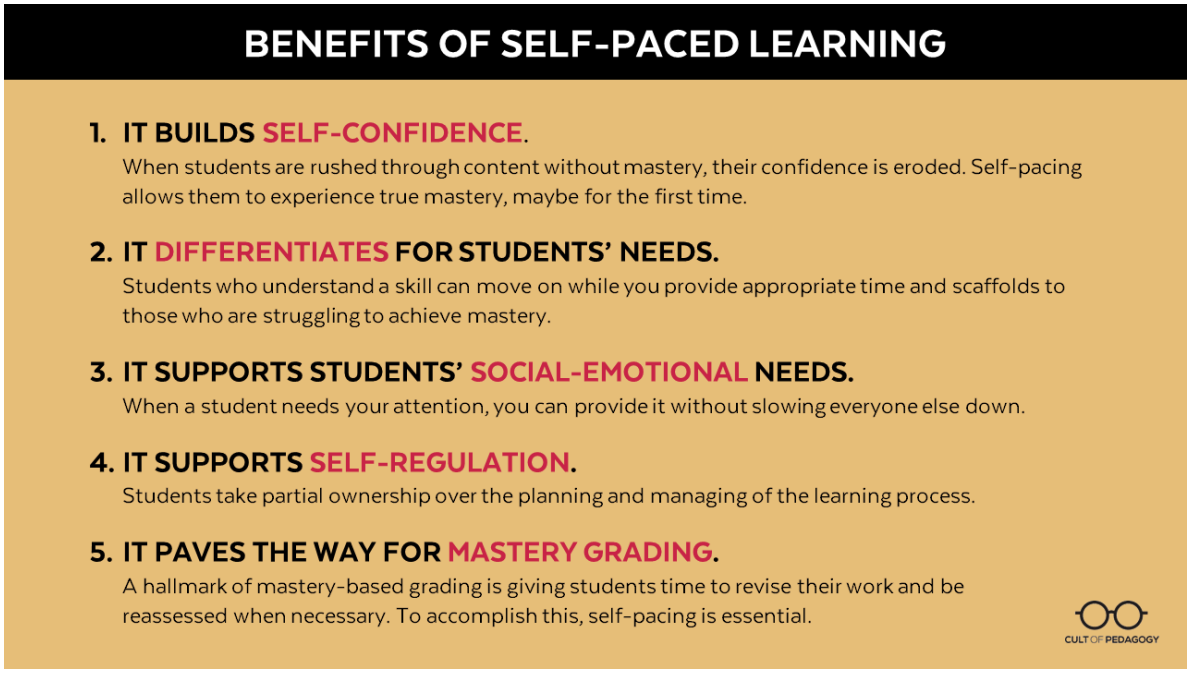
Badges – MoodleDocs

Canvas Badges (Badgr) – Instructure Community (canvaslms.com)

# Self-paced learning block

November 17, 2022
Categories: Self-regulated learning experience
Tags: Expert

Enabling self-paced learning block or unit in the course will address different needs, learning styles of the students and offer flexibility and differentiation.




Source: Self-Pacing-Benefits.png (1280×720) (cultofpedagogy.com)

The content in the course can be divided into small chunks, structured didactically as activities or content for activation, input, reflection, output, and assessment in the learning management system (LMS) using the technical settings of the system. There are possibilities to define activity completion and also to set a restriction for one activity. That enables the educator to define what are the prerequisites for one content to make sure that the learners achieve the skills according to the learning plan. The restriction to access one activity can be reading/watching the content previously added or receiving a certain grade on a quiz. This setting can enable the advancing in the block or require a repetition of the previous content.

ℹ — More information
Self-paced learning: What to expect from a CBE program (umassglobal.edu)

💼 — Tools
Restrict access settings – MoodleDocs
Activity completion settings – MoodleDocs

# Individual assistance

November 17, 2022
Categories: Feedback and guidance
Tags: Beginner, Integrator

Individual support is a service that provides a broad range of individualised supports to students requiring assistance with activities, daily requirements and/ or the development or acquisition of content and tasks in the learning process, which can be influenced and coordinated by the teacher. The individual support includes regular communication, check-ups and other activities that can be performed in learning management system or by using communicational tools suitable for the educator and student.

# Campus Management Systems (CMSs)

November 16, 2022
Categories: Remote work training: information events and training courses for DCPD of teachers
Tags: Integrator

CMSs are digital platforms (IT systems) for the administration, documentation, and organisational communication of (higher) education institutions. CMSs are used to map organisational business processes related to the student life cycle (student, course, and exam administration, etc.) as well as other areas of responsibility for university administration. Through CMSs, the processing and presentation of study, teaching or exam-related information is increasingly carried out in the sense of the e-campus through internet-based university portals with self-service functions.

The scope of services of the modularly structured CMSs from different providers varies considerably.

CMSs enable internet-based organisation, processing, and communication of education-related information by students, teachers, or employees, based on a differentiated system of rights.

Core applications of CMSs comprise (but are not restricted to): Application and admission process; Student administration; Modelling of study programs and examination regulations; Event planning (including creation of the course catalogue as well as the regular and individual timetables); Classroom management; Participant management (registration and deregistration, admission and distribution to courses and exams); Course coordination (including planning the semester program and ensuring that it is possible to study); Exam management (e.g. booking of grades, crediting of achievements, administration of theses); Organisational data management (e.g. building and lecture hall plans, e-mail and telephone directory of the faculties, institutes, departments, employees, etc.).

CMSs are also used to map administrative processes in the areas of human resources, accounting, controlling or computer-aided facility management (CAFM). While differentiating the requirements at the universities, additional functions such as alumni administration and marketing, course evaluation, internship management or non-overlapping timetable planning are included in the range of services of established systems.

— Tools
Among the available Campus Management Systems (CMSs) are the following (choice):

- AcademyFIVE
- CampusNet
- CAMPUSonline
- CAS Campus
- FH Complete
- HISinOne
- Salesforce Education Cloud
- SAP

# Learning Management Systems (LMSs)

November 16, 2022
Categories: Remote work training: information events and training courses for DCPD of teachers
Tags: Beginner, Integrator

A learning management system (LMS) is a software application for the delivery, tracking, reporting, automation, documentation, and administration of educational courses, training programs, or learning and development programs.

The introduction of LMSs dates back as early as the late 1990s. The usage of LMSs has increased due to the emphasis on remote teaching and learning during the COVID-19 pandemic.

LMSs act as a platform for online content, including courses, both asynchronous based and synchronous based. Thus, LMSs focus on online learning delivery but support a range of uses.

In higher education, an LMS may offer classroom management for instructor-led training or a flipped classroom.

Modern LMSs include intelligent algorithms to make automated recommendations for courses based on a user's skill profile as well as extract metadata from learning materials to make such recommendations even more accurate.

LMSs may help to identify training and learning gaps, using analytical data, and reporting.

(https://en.wikipedia.org/wiki/Learning_management_system)

ℹ — More information

Cavus, Nadire; Y. Bala Mohammed, M.N. Yakubu (2021). Determinants of Learning Management Systems during COVID-19 Pandemic for Sustainable Education. Sustainability 13 (9): 5189; https://doi.org/10.3390/su13095189

Alzahrani, K.P. Seth (2021) Factors influencing students' satisfaction with continuous use of learning management systems during the COVID-19 pandemic: An empirical study. Education and Information Technologies 26 (6): 6787–6805;

M. Dindar, A. Suorsa, J. Hermes, P. Karppinen, P. Näykki (2021). Comparing technology acceptance of K-12 teachers with and without prior experience of learning management systems: A Covid-19 pandemic study. Journal of Computer Assisted Learning. 37 (6): 1553–1565;

# Training courses for DCPD of teachers

November 16, 2022
Categories: Remote work training: information events and training courses for DCPD of teachers
Tags: Integrator

Education institutions should continuously offer training courses for improving teachers' digital teaching competencies, for example through centres of digitalised learning and teaching that promote the acquisition of skills for the successful design of digital teaching, learning and educational processes. Such training offers and further education courses may include provision of tools and applications for designing online teaching or using and producing digital teaching materials as open educational resources.

ℹ — More information

**Literature e.g.,**

J.M. Fernández-Batanero, M. Montenegro-Rueda, J. Fernández-Cerero, I. García-Martínez (2020) Digital competences for teacher professional development. Systematic review. *European Journal of Teacher Education,* published online: 08 Oct 2020; https://doi.org/10.1080/02619768.2020.1827389

Minea-Pic (2020) Innovating teachers' professional learning through digital technologies. OECD Education Working Papers, No. 237, OECD Publishing, Paris; https://doi.org/10.1787/3329fae9-en

I. Reisoğlu (2021) How Does Digital Competence Training Affect Teachers' Professional Development and Activities? *Technology, Knowledge and Learning*; https://doi.org/10.1007/s10758-021-09501-w

# Citizen enquiry

November 16, 2022
Categories: Research findings regarding future digital pedagogies
Tags: Integrator

Citizen science activities refer to ways members of the public can learn by initiating or joining collaborative research-led scholarly inquiry. In citizen science learning through scientific research is combined with collaborative mass participation. Citizen science activities can change people's relationship to research from passive recipients to active participation while the relationship between science and public understanding shifts from dissemination to collaboration.

ℹ — More information

**Literature e.g.,**

Sharples, M., de Roock , R., Ferguson, R., Gaved, M., Herodotou, C., Koh, E., Kukulska-Hulme, A., Looi, C-K, McAndrew, P., Rienties, B., Weller, M., Wong, L. H. (2016). *Innovating Pedagogy 2016: Open University Innovation Report 5*. Milton Keynes: The Open University. https://doi.org/10.13140/RG.2.2.20677.04325

Herodotou, C., Sharples, M., Gaved, M., Kukuluska-Hulme, A., Rienties, B., Scanlon, E. & Whitelock, D., 2019, Innovative pedagogies of the future: an evidence-based selection. *Frontiers in Education* 4, Article 113. https://doi.org/10.3389/feduc.2019.00113

Herodotou, C., Sharples, M. & Scanlon, E. (eds.) (2018) *Citizen Inquiry: Synthesising Science and Inquiry. Learning*. London: Routledge.

Herodotou, C., Sharples, M., Scanlon, E. (2018). Introducing citizen inquiry. In: C. Herodotou, M. Sharples, and E. Scanlon (Eds). *Citizen Inquiry: Synthesising Science and Inquiry Learning*. London: Routledge.

# Learning and teaching with drones (dronagogy)

November 16, 2022
Categories: Research findings regarding future digital pedagogies
Tags: Expert, Innovator

Learning and teaching with drones could help teachers to provide scaffolding to learners and open new possibilities of observation, measurement, and experimentation. Drones offer opportunities but also challenges for teachers. With drones supporting teaching, human teachers will need to reflect and adjust their capabilities and roles to maximise the benefits while minimising the detriments of learning and teaching with drones. Human teachers will need training to use drones (in and) outside the classroom. (For example, learning with drones is being used to support fieldwork by enhancing students' capability to explore outdoor physical environments.) This should be informed by research on pedagogies including drone technologies and applications (dronagogy).

ℹ — More information

**Links**

- https://www.edx.org/learn/drones
- Early Days for Drone Use in Higher Education | EDUCAUSE
- How drone technology impacts education and student learning – educoglobal.com
- Drones Take Flight on Campus for Teaching, Research and Administrative Tasks | EdTech Magazine
- Best Drones for Education 2022 | Tech & Learning (techlearning.com)
- Drones Go to College: A Look at UAVs in Higher Education – PCS Edventures
- 10 Ways Drones Are Being Used In The Classroom | Coverdrone

**Literature e.g.,**

Sharples, M., de Roock , R., Ferguson, R., Gaved, M., Herodotou, C., Koh, E., Kukulska-Hulme, A., Looi, C-K, McAndrew, P., Rienties, B., Weller, M., Wong, L. H. (2016). *Innovating Pedagogy 2016: Open University Innovation Report 5*. Milton Keynes: The Open University. https://doi.org/10.13140/RG.2.2.20677.04325

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Khazaee, K. Lynch (2015) Evaluating Drones for Higher Education. *EDUCAUSE Review*, Sept. 28, 2015.

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M.M. Bolick, E.A. Mikhailova, C.J. Post, (2022) Teaching Innovation in STEM Education Using an Unmanned Aerial Vehicle (UAV). *Education Sciences*, 12, 224 (18 p.); https://doi.org/10.3390/educsci12030224

# Learning and teaching with robots (robotagogy)

November 16, 2022
Categories: Research findings regarding future digital pedagogies
Tags: Expert, Innovator

Learning and teaching with robots could help teachers to free up time on simple, repetitive tasks, and provide scaffolding to learners. Robot teachers offer opportunities but also challenges for teachers. With robots supporting or performing teaching, human teachers will need to reflect and adjust their capabilities and roles to maximise the benefits while minimising the detriments of learning and teaching with robots. Human teachers will need training to collaborate with robot teachers in the classroom. This should be informed by research on pedagogies including robot teachers (robotagogy).

ℹ — More information
Literature e.g.,

Sharples, M., de Roock , R., Ferguson, R., Gaved, M., Herodotou, C., Koh, E., Kukulska-Hulme, A., Looi, C-K, McAndrew, P., Rienties, B., Weller, M., Wong, L. H. (2016). *Innovating Pedagogy 2016: Open University Innovation Report 5.* Milton Keynes: The Open University.

Herodotou, C., Sharples, M., Gaved, M., Kukuluska-Hulme, A., Rienties, B., Scanlon, E. & Whitelock, D., 2019, Innovative pedagogies of the future: an evidence-based selection. *Frontiers in Education* 4, Article 113.

R. van den Berghe, J. Verhagen, O. Oudgenoeg-Paz (2019) Social Robots for Language Learning: A Review. *Review of Educational Research* 89(2), pp. 259-295

D.P. Newton. L.D. Newton (2019) Humanoid Robots as Teachers and a Proposed Code of Practice. *Frontiers in Education,* 4:125.

https://www.frontiersin.org/research-topics/14092/robots-for-learning

# Place-based education, digitalised

November 16, 2022
Categories: Research findings regarding future digital pedagogies
Tags: Integrator

Place-based education (PBE), sometimes referred to as place-based learning (PBL), experiential education, community-based education, or less commonly, service learning, seeks to help communities by engaging students and educational staff in solving community problems.

Place-based teaching differs from conventional text- and classroom-based teaching in that it understands the local community of students as one of the primary learning resources: it derives learning opportunities from local community settings, which help students connect abstract concepts from the classroom and textbooks with practical challenges encountered in their own localities. Therefore, place-based education encourages learning rooted in the local – the unique history, environment, culture, economy, literature, and arts of a particular place. The site-specific training is often interdisciplinary. It aligns with several popular pedagogies, including thematic, hands-on, or project-based learning. The place-based curriculum begins with issues or issues from the local community.

In the present context, the focus is on PBE applying digitalised tools (e.g., videos or drones for on-site investigations).

ℹ — More information
Literature e.g.,

Sharples, M., de Roock , R., Ferguson, R., Gaved, M., Herodotou, C., Koh, E., Kukulska-Hulme, A., Looi, C-K, McAndrew, P., Rienties, B., Weller, M., Wong, L. H. (2016). *Innovating Pedagogy 2016: Open University Innovation Report 5.* Milton Keynes: The Open University;

Herodotou, C., Sharples, M., Gaved, M., Kukuluska-Hulme, A., Rienties, B., Scanlon, E. & Whitelock, D., 2019, Innovative pedagogies of the future: an evidence-based selection. *Frontiers in Education,* 4, Article 113;

H.T. Zimmerman & S.M. Land (2014) Facilitating Place-Based Learning in Outdoor Informal Environments with Mobile Computers. *TechTrends*, 58(1), pp. 77-83.

A discussion of how the exploration and understanding of a place can be the backbone of higher education teaching and learning, whether delivered online or in-person, 2 September 2021;

# Teachback

November 16, 2022
Categories: Research findings regarding future digital pedagogies
Tags: Beginner, Integrator

The Teachback method, also known as the Show-me method, is a communication confirmation method used primarily by healthcare providers to confirm whether a patient (or caregiver) understands what is being explained to them. When a patient understands, they can "teach back" the information accurately, thereby improving their health literacy.

The Teachback method can be applied to other contexts of generating understanding. There can be a significant gap in perceptions of how much information a student needs or how effective a teacher's communication is. This can have various reasons, for example, a student does not understand the teacher's terminology adequately, does not feel comfortable asking questions, or even has cognitive impairments.

The Teachback method not only can help teachers to understand students' needs in understanding their subject matter, but also allows teachers to assess their own communication skills.

Teachback can be implemented by a software communication tool used to check understanding, i.e., two or more people can check whether they are progressing toward a shared understanding of a complex topic.

ℹ — More information
Teachback: http://teachback.org/

Literature, e.g.:

Sharples, M., de Roock , R., Ferguson, R., Gaved, M., Herodotou, C., Koh, E., Kukulska-Hulme, A., Looi, C-K, McAndrew, P., Rienties, B., Weller, M., Wong, L. H. (2016). *Innovating Pedagogy 2016: Open University Innovation Report 5*. Milton Keynes: The Open University; https://doi.org/10.13140/RG.2.2.20677.04325

Herodotou, C., Sharples, M., Gaved, M., Kukuluska-Hulme, A., Rienties, B., Scanlon, E. & Whitelock, D., 2019, Innovative pedagogies of the future: an evidence-based selection. *Frontiers in Education,* 4, Article 113; https://doi.org/10.3389/feduc.2019.00113

Talevski, J., Wong Shee, A., Rasmussen, B., Kemp, G., Beauchamp, A. (2020). Teach-back: A systematic review of implementation and impacts. *PLoS ONE,* 15(4): e0231350; https://doi.org/10.1371/journal.pone.0231350

# Formative learning analytics

November 16, 2022
Categories: Research findings regarding future digital pedagogies
Tags: Expert, Integrator

Learning analytics refers to the measurement, collection, analysis and reporting of data and information about learners and their environments for the purpose of understanding and improving learning outcomes. Formative learning analytics uses learning achievement data and information with reference to previously set learning goals to develop suggestions and recommendations what can or should be changed to improve further learning success.

ℹ — More information
See, e.g.,

Sharples, M., de Roock , R., Ferguson, R., Gaved, M., Herodotou, C., Koh, E., Kukulska-Hulme, A., Looi, C-K, McAndrew, P., Rienties, B., Weller, M., Wong, L. H. (2016). *Innovating Pedagogy 2016: Open University Innovation Report 5*. Milton Keynes: The Open University; https://doi.org/10.13140/RG.2.2.20677.04325

Herodotou, C., Sharples, M., Gaved, M., Kukuluska-Hulme, A., Rienties, B., Scanlon, E. & Whitelock, D., 2019, Innovative pedagogies of the future: an evidence-based selection. *Frontiers in Education,* 4, Article 113; https://doi.org/10.3389/feduc.2019.00113

Barana, A. Conte, C. Fissore & M. Marchisio (2019) Learning Analytics to improve Formative Assessment strategies. *Journal of E-Learning and Knowledge Society,* 15(3), pp. 75-88.

Caballé & R. Clarisó (Eds.) (2016) *Formative Assessment, Learning Data Analytics and Gamification*. London: Academic Press

Maier, C. Ramsteck & K. Hoffmann (2017) Formative Leistungsdiagnostik und *Learning Analytics*: Entwicklung, Nutzung und Optimierung eines onlinebasierten Kurses für die Diagnostik und Förderung von Grundwissen im Kompetenzbereich Sprachbetrachtung. *Zeitschrift für Erziehungswissenschaft,* 20, pp. 728-747

Palmiero, C., & Cecconi, L. (2019). Use of Learning Analytics in formative and summative evaluation. *Journal of E-Learning and Knowledge Society*, *15*(3), 89-99. https://doi.org/10.20368/1971-8829/1135019

# Digital technologies and new pedagogical approaches

November 16, 2022
Categories: Experimentation
Tags: Expert

Digital technologies are expected to transform educational learning settings. For example, the recent Digital Education Action Plan (2021–2027) of the European Commission (EC) states that digital education should facilitate more personalised, flexible, and student-centred teaching. These goals can be strived for by applying and experimenting with digital technologies to implement innovative pedagogical approaches.

Selected examples of innovative approaches are teaching writing with Tumblr, networking the classroom with collaborative blogs or BuddyPress, using Wikis to get students do their readings, learning on mobile platforms, teaching with Google Docs, establishing Communities of Learning Practice with YouTube, sharing research and building knowledge through Zotero, etc.

— Tools
Among the available experimentation software tools are the following (choice):

BuddyPress: https://buddypress.org/

Mobile Learning Tools: https://www.edapp.com/blog/10-mobile-learning-tools/

Youtube: https://www.youtube.com/

Zotero: https://www.zotero.org/

— More information
Literature on the subject, e.g.,

Scholz, R.T., 2013, Learning Through Digital Media. Experiments in Technology and Pedagogy. The Institute for Distributed Creativity. (accessed 5 June 2022).

Røe, Y., Wojniusz, S., Bjerke, A.H. (2022). The Digital Transformation of Higher Education Teaching: Four Pedagogical Prescriptions to Move Active Learning Pedagogy Forward. *Frontiers in Education*, 6:784701. doi: 10.3389/feduc.2021.784701

# Formative evaluations

November 16, 2022
Categories: Good Practice
Tags: Expert

Scientific evaluations are forms of applied social research for the systematic generation of recommendations for decisions and actions for quality assurance and quality development, which are intended to help solve practical, meta-scientific, social, and political problems.

For science-based evaluations, it is essential to know exactly what is being evaluated, for what purpose, according to which criteria, by whom and how. This means that the objects of the evaluation and the evaluation goals must be clarified, and the evaluation process must meet certain quality criteria (e.g., use empirical (social science) research methods to obtain information; assessments by experts according to explicitly defined, intersubjectively justifiable criteria).

The process of implementing the evaluation recommendations is called follow-up. Formative evaluations are evaluations that are not limited to the summary determination of past achievements but include assessments and recommendations for future improvement.

In the present context, formative evaluations are evaluations of digital pedagogical and organisational practice and related learning and teaching theories, policies, and visions.

ℹ — More information
Literature on (formative) evaluation and quality assessment in (higher) education institutions.

# Benchlearning processes

November 16, 2022
Categories: Good Practice
Tags: Expert, Integrator

Benchmarking typically is a punctual comparison of best-in-class key performance indicators (KPIs) with other participants (quantitative comparison to develop good or best practice cases). The focus is on comparing numbers that describe past events, while people involved might not have direct contact in physical conversations.

In contrast, benchlearning is an ongoing knowledge sharing process over a longer period of time, the focus of which is on learning from participants and creating new knowledge, comparison of future initiatives, and insights together (qualitative comparison and learning). Benchlearning connects people via physical events and creates trust to share past and present experiences.

Sometimes also called "Good practice" is a way of proceeding that has been widely accepted as preferably to alternatives for maintaining and enhancing quality or performance when strict or explicit benchmarks of quality or performance are not available. Good practice (sometimes exaggerated as "Best practice") can be based on exchange of comparative experience that draws on various sources of information and data that do not (have to) always or entirely meet scientific criteria.

Both benchmarking and benchlearning may rely on SWOT analysis.

A benchlearning process can be analysed into five phases – Planning and Preparation; Analysis; Integration; Action; Maturity – and several steps which detail the five phases. Roughly, these steps are to determine benchlearning entities, methodology for collecting benchlearning data, and collect these data (Planning and Preparation); identify current performance gaps and future performance potential, e.g., by SWOT analysis (Analysis); communicate benchlearning results and gain acceptance, and set up functional goals for benchaction (Integration); conduct targeted benchactions and monitor their progress (Action); and fully integrate novel practice including leadership engagement (Maturity).

Models of benchlearning processes from the literature, for example Freytag, P.V. & Hollensen, S. (2001) The process of benchmarking, benchlearning and benchaction. *The TQM Magazine* 13(1), pp. 25-34. https://doi.org/10.1108/09544780110360624

ℹ — More information
For example, a 14-step model of benchlearning processes: Leiber, T., 2020, Performance data governance and management in learning and teaching: Basic elements and desiderata in the light of a European case study. In: Gesellschaft für Hochschulforschung (GfHf) (Ed.) (2020) Transformation of Society, Transformation of Science, Documentation of the Annual Meeting 2019 of the Society for Higher Education Research, GfHf, pp. 1-13, Figure 2.

article-id-3045.pdf (gfhf2019.de)

# Stakeholder feedback

November 16, 2022
Categories: Experience exchange
Tags: Integrator

Gathering stakeholder feedback means that participating and involved stakeholders (e.g., students, teachers, employers) are asked about their satisfaction with and assessment of the digitalised pedagogic practice of specific courses or study programmes by using criteria-based questionnaire guidelines. The latter can be applied in the context of surveys (online or paper-and-pencil), semi-structured focus group discussions or interviews. The feedback should be used by stakeholders to jointly develop recommendations for further improvements.

ℹ — More information

Literature on stakeholder feedback methodology (social science data collection methods) in (higher) education institutions.

# Peer observation

November 16, 2022
Categories: Experience exchange
Tags: Expert, Innovator

Teachers' pedagogical peer observation can empower self-reflection on their pedagogical practice, identify good practices observed and establish communication about teaching with their colleagues; students and other stakeholders can be included in this learning process to improve learning and teaching for all involved stakeholders.

ℹ — More information

Fletcher, J.A., 2018, Peer Observation of Teaching: A Practical Tool in Higher Education. Journal of Faculty Development 32(1), pp. 1-14. DOI: 10.13140/RG.2.2.19455.82084

Manica Danko, M., Damijana Keržič, D., Kotnik, Ž., 2016, Peer observation in higher education as an agent of change in teaching and learning, Conference paper, DOI: 10.21125/inted.2016.0797.

Siddiqui, Z.S., Jonas-Dwyer, D. & Carr, S.E., 2009, Twelve tips for peer observation of teaching. Medical Teacher 29(4), pp. 297-300.

# Digital collaboration tools

November 16, 2022
Categories: Networking
Tags: Expert, Integrator

Digital collaboration tools (collaboration software) help users, for example teachers, manage projects and stay connected to peers, students, parents, and other stakeholders. Digital collaboration tools are often cloud-based project and task management platforms. Educational professionals can use them to create projects, divide them into tasks and subtasks and assign them to users within the organisation or team, or those from outside the organisation.

Digital collaboration tools aid digital collaboration through features such as file sharing, videoconferencing, and chat. Users can attach files from their computer or, for example, from Dropbox, Box, OneDrive, and Google Drive. These uploads, as well as other activities, can be liked or commented on. Some digital collaboration tools offer integrations with apps, including, for example, automatic time tracking software, project and issue tracking, and email marketing software.

🧰 — Tools
Among the available digital collaboration tools are the following (choice):

- Asana: https://asana.com/
- Basecamp: https://basecamp.com/
- Google Workspace: https://workspace.google.com/
- Microsoft Teams: https://www.microsoft.com/en-us/microsoft-teams/
- Pivotal Software: https://www.pivotaltracker.com/
- Slack: https://slack.com
- Trello: https://trello.com/en
- Yammer: Yammer Enterprise Social Network | Microsoft 365

# Alternative formats

November 16, 2022
Categories: Personalization
Tags: Innovator

To cater for different learning styles and technical and contextual learner preferences, educators can choose to offer content in alternative formats.

Likewise, educators may allow learners to choose their preferred format for returning or sharing their assignments.

This allows maximum personification of learning experiences. It also enables students to progress better and to respect their various cognitive and health conditions.
Written assignments, graphic or visual outputs, videos, podcasts, oral outputs can be options for the same content.

ℹ — More information

Fry, H., Ketteridge, S. & Marshall, S. (Eds) 2009. A Handbook for Teaching and Learning in Higher Education. Enhancing Academic Practice. Third edition.

Adeboye, D. 2020. E-learning Industry. Engaging Content For Online Teaching And Learning.

# Favicon bars

November 16, 2022
Categories: Personalization
Tags: Expert

Favicons are small shortcut icons which make access to websites easier and faster. The educator can recommend students to personalize their browser views and create favicon shortcuts to relevant course sites, discussion boards or tools.

— Tools

How to add a favicon? (Google)

— More information

Favicon example





# Zooming tools, magnifier

November 16, 2022
Categories: Personalization
Tags: Expert

At times it may be important to be able to adjust the size of the font or some details on the screen. The educator can advise the students on how to do it, the steps may vary depending on the device and the system it uses (Apple, Microsoft,..)

— Tools

Screen magnifier. Wikipedia

Zooming tool, Magnifier (Microsoft)

# Screen sharing & presentation modes

November 16, 2022
Categories: Personalization
Tags: Integrator

Being able to share a screen and use the presentation mode is an essential skill in virtual meetings. An educator should be able to instruct or share instructions to learners on how to share their screen, desktop or other content on a particular synchronous learning platform (e.g Zoom, Teams, Google Classroom).

The educator can enable learners to practice sharing their screen or other content and presentation modes in small group in breakout rooms for gaining confidence in presenting. Peer students can be asked to instruct each others and try to solve the problem together if someone is facing difficulties.

💼 — Tools
Sharing your screen or desktop on Zoom.

Sharing your screen or desktop Teams.

# Virtual background

November 16, 2022
Categories: Personalization
Tags: Integrator

A personalized virtual background may motivate learners to keep their video cameras on in an online classes.

Adding a virtual background can be practiced together. Many educational institutions provide branded virtual backgrounds for students.

Students can also be asked to choose a background which e.g. represents their hobbies or interest.

— Tools
Zoom: Chancing the virtual background image.

Teams: How to Add Virtual Backgrounds

Free virtual background images.

# Audio and video settings

November 16, 2022
Categories: Personalization
Tags: Beginner

Knowing how to adjust sound and camera settings is important in online meetings. Students should be instructed to test their speaker and microphone when joining the online meeting.

In case of problems, the educator may suggest basic problem solving steps, such as re-joining the online meeting, restarting the computer, troubleshooting with instructions, checking computer's system settings or contacting the institutional helpdesk.

— Tools
Zoom support, Audio and Video.

Teams support, Join a Teams meeting.

# LMS account settings

November 16, 2022
Categories: Personalization
Tags: Beginner

Proper and relevant account or profile settings in the Learning Management Systems (LMS) can greatly facilitate digital communication, group collaboration or manage student's digital identity.

Support for updating the student account settings is often available from the institutional IT services. However, the educator can also remind about the benefits and instruct how to, for example, change the LMS language, make sure course alerts are sent to a proper email box, add a thumbnail photo or change any other course related settings in the student profile.

# Use of different browsers

November 16, 2022
Categories: Personalization
Tags: Beginner

The educator should be aware of different web browser functionalities. In order to find the best web browser for one's device, one needs to consider the privacy, speed or compatibility issues of various browsers.

Some browsers demand more of the system resources, while others are relatively lightweight when it comes to impacting system memory. Selecting a web browser to use for the long term is a very personal thing, and will depend on one's individual browsing security, privacy and accessibility needs.

From a technical perspective it will also depend on what the computer is able to handle in terms of processing speed, and memory capacity. Furthermore, some programs may open and run better using a particular web browser.

The educator should inform students if some course functionalities or software are optimized for certain browsers.

There is a numerous amount of different web browsers (search by Google).

ℹ — More information

Marshall, C. & Baxter, D. 2022.
Our pick of the best web browsers for 2022 so far – The best web browsers for speed, privacy and customization – Accessed 10.5.2022.

# Introducing new technologies

November 16, 2022
Categories: Capacity building
Tags: Innovator

New digital technologies can have positive effects on student learning. Educators should keep an eye on the technology development and identify and employ relevant new technology in their online teaching. This can be realized, for example, by regularly participating in institutional digital training events or following relevant literature.

One effective way of learning about new technologies is to allow students to choose their preferred tools and technologies for various learning activities and have them introduce a technology for the learning group, including the educators.

ℹ — More information
A few examples to follow :

EdTech Magazine, Focus on Higher Education.

Fierce Education.

The Chronicle of Higher Education.

Journal of Research on Technology in Education.

International Journal of Educational Technology in Higher Education.

# Identifying course specific development needs for digital competence

November 16, 2022
Categories: Capacity building
Tags: Integrator

As a pretask, the educator can create a test for students for identifying their digital skill development needs specific to the course. The test can be in form of a multiple choice, dialog cards, drag and drop, or flashcards, for example.

Based on the test results, the educator can provide links to or create extra training content for the students in need.

— Tools
H5P tools for creating course specific activities: https://h5p.org/content-types-and-applications

# Recognition of learners' digital competence levels

November 16, 2022
Categories: Capacity building
Tags: Beginner

There are several ways to recognize and evaluate learners' digital skills. The frameworks enable to plan needed training for an individual student or student group. An example framework is DigComp which is a European framework for citizens and educators to understand and develop digital competence. This and related other frameworks enable discussion, reflection and self-assessment of one's own digital competence.

— Tools

Digital Skills & Jobs Platform. European Union. Test your digital skills.

European Digital Competence Framework for Citizens. Self-assessment.

Digitial competences – Self-assessment grid. Europass.

Digital study competences is an online self-evaluation tool for mapping students digital competences.

UK Department for Education. Guidance for Essential digital skills framework.

# Student-created tutorials

November 16, 2022
Categories: Technical support for learners
Tags: Innovator

For shared learning, learners can create video tutorials for technical support. Each learner or student group can be given a different topic or different technology to experiment with content creation.

🧰 — Tools
Software for creating videos:

- https://www.screencastify.com/
- https://www.techsmith.com/video-editor.html
- https://www.screencast-o-matic.comhttps://www.kapwing.com/
- https://app.biteable.com
- https://flipgrid.com
- https://obsproject.com/
- https://corp.kaltura.com/education-video-platform/

# Creating tailored tutorials

November 16, 2022
Categories: Technical support for learners
Tags: Expert

If tutorials in open educational resources are not relevant or available, the educator can create her/his own video tutorials. There is a wide array of technology available and creating the tutorial requires planning.

Essential steps to making a great instructional video:
Step 1: Determine your audience.
Step 2: Write a storyboard and script.
Step 3: Record your narration.
Step 4: Record your screen or capture video.
Step 5: Edit the video.
Step 6: Add a video intro.
Step 7: Share your video.
(Techsmith)

— Tools
Techsmith. The Ultimate Guide to Easily Make Instructional Videos.

Kary, Sam. How to make video tutorials with Screencastify.

Software for video creation:

- https://www.screencastify.com/
- https://www.techsmith.com/video-editor.html
- https://www.screencast-o-matic.comhttps://www.kapwing.com/
- https://app.biteable.com
- https://flipgrid.com
- https://obsproject.com/
- https://corp.kaltura.com/education-video-platform/

# Collborative brainstorming

November 16, 2022
Categories: Technical support for learners
Tags: Integrator

Students may need encouragement for problem solving in teams or their online studies in general. One effective way is collaborative brainstorming.

# Peer support forum

November 16, 2022
Categories: Technical support for learners
Tags: Integrator

The educator can create a discussion forum or similar platform where learners can share tips for solving technical challenges or provide peer assistance and support. This is especially important in study units which are technology oriented or introduce new technical tools and platforms.

# Tools workshops / clinics / training

November 16, 2022
Categories: Technical support for learners
Tags: Integrator

Workshops, online clinics and training sessions for learners foster their digital competencies on using tools needed in learning activities. The training sessions can be part of the course and a course assignment.

Especially in cases where the technology is not commonly used in other studies, the educator should provide links to open tutorials and reserve time for an online workshop/clinic where learners can get support and share tips for each other.

ℹ — More information
Example: Miro tutorials in Youtube.

# Step-by-step instructions

November 16, 2022
Categories: Technical support for learners
Tags: Beginner

The educator can provide step-by-step instructions for learners how to use digital tools needed in the course. Instructions can be part of an assignment (e.g. how to use document templates or make a video etc.).

The instructions can be also presented in the beginning of the course or lecture (e.g. how to share a screen when presenting, how to use collaboration platform or facilitate sessions online etc.)

As a warm-up task, educators can ask learners to create step-by-step instructions to be shared for each other in an online class. See for example topics below.

ℹ — More information
Examples of instructions:

- How to navigate in the LMS from the students point of view
- How to set up a microphone
- How to open a web camera
- How to share a screen
- How to use a presentation mode
- How to use document templates
- How to give peer feedback in LMS
- How to save the assignment into a specific format

  …

# Online tutorials

November 16, 2022
Categories: Technical support for learners
Tags: Beginner

For technical support, educators can refer students to existing technical or instructional tutorials (Open Educational Resources). Since the selection of online tutorials is very wide, it is important that the educator makes a pre-selection and a specific linking to a relevant set of tutorials.

For example, Microsoft or Adobe have wide tutorial repositories which can be benefited from.

The institutional help desk services may also have a pool of digital advice such as a list of answers to FAQ or a series of short video clips, tutorials, addressing the most common digital issues the students face in their learning activities in general or in a specific study unit.

— Tools

- Microsoft Office Classes
- Microsoft 365 Training
- Microsoft Office / GCF Global
- Adobe tutorials

# Helpdesk information

November 16, 2022
Categories: Technical support for learners
Tags: Beginner

Guiding learners to contact the institution’s help desk or IT services support students to independently try and solve the possible digital problems.

Help desk services may also have a pool of digital advice such as a list of answers to FAQ or a series of short video clips, tutorials, addressing the most common digital issues the students face.

The educator’s role is to be aware of such guidance and remind learners about it. This is especially important if non-standard approaches are used during the online study unit.

# Collaborative and cooperative learning

November 16, 2022
Categories: Collaborative aproaches
Tags: Expert

In both cooperative and collaborative learning the students work in smaller groups in order to accomplish learning goals.

**Collaborative learning** is learning in groups or teams to solve problems, working peer-to-peer complete tasks, or build new knowledge. The collaboration promotes common intellectual effort to search for meanings, holistic understandings or solutions. In collaborative learning, students are focused on working with the group members to contribute with ideas, communicate and create results together.

In the **cooperative learning** students can experience a space for autonomy and individual work; they seek to find answers individually and cooperatively. They cooperate to gain own knowledge but also to contribute to the group.

— More information

Online Collaborative Learning in Higher Education: A Review of the Literature (american.edu)
Collaborative Learning in Higher Education: Evoking Positive Interdependence – PMC (nih.gov)
What is Cooperative Learning? — Cooperative Learning Institute (co-operation.org)

— Tools

Diigo: bookmarking tool – collect, annotate, organize, and share online resources
Flipgrid: create and share short videos, post, discuss, reflect and share presentations
VideoAnt: a tool for annotiations in YouTube videos
Padlet: collaboration tool – posting and collecting resources

# Challenge based learning

November 16, 2022
Categories: Collaborative aproaches
Tags: Expert

Challenge based learning is a student-centred approach where students collaboratively answer the challenge. The challenge is focusing on a big idea reflecting a community, relationships, sustainability, democracy, etc. This approach is divided into phases: engage, investigate, act. In the whole ongoing process, the students are encouraged to document, reflect and share. After defining a challenge, the students investigate, developing the contextualized learning experience in order to create solutions that will be presented in the last phase.

ℹ — More information

Framework – Challenge Based Learning – CBL Framework

Examples

# Project based learning

November 16, 2022
Categories: Collaborative aproaches
Tags: Expert

Project-based learning (PBL) is a teaching method that engages students' learning with real-world, meaningful projects. In PBL, students work in groups. Usually, this approach can last the whole semester. The students are engaged on from the beginning, from the defining the topic in a form of a challenging question and are involved in the project design and collaborative implementation. The result of the PBL is a product or a presentation for a public audience.

— Tools

7 Ways To Integrate Technology For Successful Project-Based Learning – eLearning Industry

— More information

What is Project Based Learning? | PBLWorks
Implementing Project-Based Learning in Higher Education (practera.com)

# Illustrative student stories

November 16, 2022
Categories: Learners' awareness of data security
Tags: Expert

Risk management and data security topics can be made engaging by storification or other engaging learning activities.

Students can be asked to create these stories in many alternative ways such as visual a story boards, cartoons, comics or animations. (see attached picture)

IT students can be given a task to enter a service and detect security issues (white hat hacking; red and blue team training).

— Tools
Comic Ceators. Pixstacks.

GraphicMamaBlog. 12 Best Animation Software for Beginners – Accessed 185.2022.

How to Create Comic Strips in Google Slides.

Red vs. Blue, interactive game-based simulations to learn cybersecurity.

— More information
Example illustrative student story:



StudentStory_PenaForgetsPassword_J.Kettunen2022.

White hat (computer security). Wikipedia.

# Awareness of policies

November 16, 2022
Categories: Learners' awareness of data security
Tags: Integrator

Students should be made aware of the institutional data security policies and rules. Critical thinking and general IT skills should be encouraged.

If course specific rules apply, interactive H5P tasks such as a crossword puzzle, flashcards or multiple choice test can be an engaging way of getting students acquainted with the rules.

💼 — Tools
Phishing identifyer quiz by Google.

Examples of interactive H5P.

# Problem based learning

November 16, 2022
Categories: Collaborative aproaches
Tags: Expert

Problem based learning is student cantered collaborative approach where the students are immersed into the problem solving. The problems are open-ended and reflect the real-world scenarios. This authenticity engages learners to understand the importance of the content and motivates them to reach a solution.

— Tools

Problem-Based Learning Using Technology – eLearning Industry

— More information

What is Problem Based Learning? | Instructional Design
Applying Problem Based Learning (PBL) – Instructional Design Australia

# Remote study environments

November 16, 2022
Categories: Learners' awareness of data security
Tags: Beginner

In online studies, learners may join and use educational activities from anywhere. Learners’ data security at home or in other locations is typically not on the same level as in official institutional networks and sites.

For example, in cafés or on public transportation others may see your screen, or the public wifi network or app may not be safe. This can be relevant especially if handling confidential content (e.g health records).
Educators can consider allowing some parts of the learning activities to be done on the campus.

# Data security campaigns

November 16, 2022
Categories: Learners' awareness of data security
Tags: Beginner

Organize or join any campaigns or activities around data security. Integrate activities and assignments into your study unit as appropriate.

One example is the Finnish Digital security week, organized by the Finnish Digital and Population Data Services Agency.
The national agency also offers entertaining but informative trainings, games and apps for learning about Digitally Secure Life.

ℹ — More information
Information package of Finnish Digital and Population Data Services Agency.

Example: Program for the DigiSafety Week with many expert presentations. (in Finnish or Swedish)

# Inquiry based learning

November 16, 2022
Categories: Collaborative aproaches
Tags: Expert

Inquiry-based learning is an educational strategy in which students actively participate and perform self-directed investigations on a topic or a problem defined previously. In this process, the students follow and apply recognisable methods and practices, formulate a hypothesis, and ask questions, with the ultimate goal to solve the inquiry defined at the beginning of this strategy. In the investigation phase, the students prove the hypothesis or repeat the process involving the elements learned in the tries that failed. This goes on until the students prove the hypothesis, answer the questions, and explain the problem they are investigating.

— Tools

Inquiry based learning steps and tools:
4 Phases of Inquiry-Based Learning: A Guide For Teachers (teachthought.com)

— More information

Find more: Pedaste, M., Mäeots, M., Siiman, L. A., De Jong, T., Van Riesen, S. A., Kamp, E. T., ... & Tsourlidaki, E. (2015). Phases of inquiry-based learning: Definitions and the inquiry cycle. Educational research review, 14, 47-61

# Basic rules for data security

November 16, 2022
Categories: Learners' awareness of data security
Tags: Beginner

A rule of thumb is that 80 % of information security issues are caused by 20 % of risks. In most cases, the prevention is managed on an institutional level. For example, the institution may have different policies for data system security evaluation and data policy.

The most common data security risks educators and learners encounter are:

- Phishing
- Weak or re-used passwords
- Malicious web pages
- Physical data security
- General awareness of GDPR and data protection regulations

An educator should recognize and use institutional platforms which are typically more secure than open / social media platforms. If using other external platforms, the educator should clearly indicate this to learners and be aware of potential data security issues.

🧰 — Tools
Phishing identifyer quiz by Google.

Google Account Help: Create a strong password & a more secure account.

ℹ — More information
80/20 Information Security

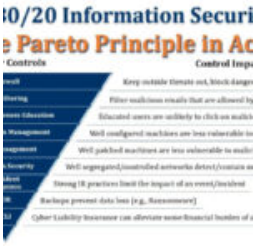



Image source: John Verry.

# Pause procedure

November 16, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Integrator

Pause procedure is an activity also applicable in online teaching. The educators structure the lessons in smaller chunks. During the session, they interrupt (pause) the lecturing to let students share their 3-5 key takeaways and/or any questions they might have. For sharing the answers, the students can use a chat.

ℹ — More information
Remote Teaching Support (universiteitleiden.nl)

💼 — Tools
Students can share their answers in the chat or on the built-in whiteboard of Microsoft Teams or Zoom.

# Jigsaw

November 16, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Expert

Jigsaw is a cooperative learning technique where each student is important for the completion and full understanding of the final results of the activity.

Firstly, the students are divided into groups. Each group works on the overall topic, but the task is divided into parts and each member of the group works on a different part – individually – thus completing the (jigsaw) puzzle.

Secondly, in the next step will the students working on the same part be gathered into the groups of experts. If there are some differences in the quality of individual work, will be balanced out in this groups. All experts of a sub-area meet to compare their results and summarise the information.

Thirdly, the experts return to their home group to present their area of expertise to the other group members. The group members have to listen carefully to the presenter, encourage and support him/her.

Finally, the overall topic is reviewed by all group members.

ℹ — More information
The Jigsaw Classroom

# Identity checks online

November 16, 2022
Categories: Personal security
Tags: Integrator

Checking students' identity online for exams and assignments can be done in various ways. The strategies are different for small and large groups, where the educator cannot know every student personally.

Follow institutional policies. Secondly, apply least possible control. (See above Cheating prevention)

Examples:

1. Asking students to turn on their cameras and keep it on during the activity.
2. Asking students to show their ID for the camera. For not sharing personal data, this should be done in a separate session before the actual online exam. Students are only then allowed to enter the actual online exam platform or activity session.
3. Use of technology for verifying identity (e.g. Proctorio)

💼 — Tools
Automated or Live ID verification:
https://proctorio.com/products/identity-verification

# Digital identity

November 16, 2022
Categories: Personal security
Tags: Integrator

A digital identity is an online identity adopted in cyberspace by an individual, organization or electronic device. Educators and students may also project more than one digital identity through multiple communities. In terms of digital identity management, key areas of concern are security and privacy. (Technopedia)

A digital identity is comprised of characteristics, or data attributes, such as the following:

- Username and password: how to create safe passwords, using a password manager
- Online search activities, like electronic transactions
- Date of birth
- Social security number
- Medical history
- Purchasing history or behavior

A digital identity is linked to one or more digital identifiers, like an email address, URL or domain name. Because identity theft is rampant, digital identity authentication and validation measures are critical to ensuring security also in educational settings.

Understanding this is paramount for educators and students and should be discussed or addressed as a learning activity on an appropriate level and scope. This can be done in an engaging way by utilizing interactive H5P tools or similar activities.

Multifactor authentication > institutional policy
If registering to an external service, check if the service offers multifactor authentication.

Being careful where to insert personal data. Phishing.

No requirement for students to register to external services such as FB.

IT services may not be able to support external services used for educational assignments.

ℹ — More information
Techopedia: What is a Digital Identity? – Definition from Techopedia

# Profile settings

November 16, 2022
Categories: Personal security
Tags: Integrator

Profile settings in learning environments, including social media platforms used in educational contexts, are worth to be addressed on institutional level or on relevant study units.

An engaging way to discuss the profile settings is to have students to liaise with others via commenting on each other's profiles. Relevant topics are, for example:

**PHOTOS:**

- Recognizable thumbnail or other profiles picture for promoting interaction and team bonding.
- Use of questionable images, reputational harms.
- Tagging practices of shared photos.
- Publishing images and copy rights

**PRIVACY SETTINGS**

- Need to change settings vs. trusting privacy settings.
- Who can follow , how much and what kind of information is made visible to peer students or educators.?
- Private messaging in educational contexts.
- Contact information: What to include?

**NAMES, USER NAMES**

- Using real names vs. made-up user names?
- Full names vs. first names?
- Professionalism of user names.

It is important that studends have knowledge how to remove or edit one's own profile. An alternative way needs to be offered for students to complete assignments in case the student does not want to create a digital profile.

ℹ — More information

Bagadiya, J. The Ultimate Guide on how to manage Social Media Privacy settings.

University of Cincinnati, Office of Information Security. How to Manage Your Social Media Privacy Settings.

Google Account Help: Create a strong password & a more secure account.

# Digital footprint

November 16, 2022
Categories: Personal security
Tags: Beginner

Students should understand what digital footprints they leave when working and studying online and how to protect themselves from hackers or cookies.

A digital footprint/a digital shadow/an electronic footprint – refers to the trail of data one leaves when using the internet. It includes visited websites, sent emails and information submitted online. It can be used to track a person's online activities and devices. Online learners create their digital footprint either actively or passively.

Digital footprints matter because they are relatively permanent, and once the data is public or semi-public the owner has little control over how others will use it. Here are some tips for protecting your personal data and managing your online reputation:

- Use search engines to check your digital footprint.
- Reduce the number of information sources that mention you-Limit the amount of data you share.
- Double-check your privacy settings.
- Avoid oversharing on social media.
- Avoid unsafe websites.
- Avoid disclosing private data on public Wi-Fi.
- Delete old accounts.
- Create strong passwords and use a password manager.
- Keep an eye on your medical records.
- Don't log in with Facebook.
- Keep software up to date.
- Review your mobile use.
- Think before you post.
- Act fast after a breach.
- Use a VPN, virtual private network".

(Kaspersky 2022)

## — Tools

Connor D. 2008. A tool that calculates your digital footprint | Network World (Accessed 11.5.2022)

Footprint Calculator – Measure your Impact – Global Footprint Network

## — More information

Kaspersky. What is a digital footprint? And how to protect it from hackers. – Accessed 11.5.2022.

Kellor M. 2019. How to search and find your digital footprint | TDS Home (tdstelecom.com) – Accessed 11.5.2022.

# Reporting channel for inappropriate behavior

November 16, 2022
Categories: Personal security
Tags: Beginner

According to EU whistleblower directive from 2019, organizations employing 50 people or more should offer a whistle blowing channel, an online reporting platform, for reporting misconduct or other inappropriate activity.

Many HE institutions offer a similar service for their students, under different names (e.g harassment prevention). Educators should be aware of such channel and be able to guide students to use the channel if needed.

ℹ — More information

Directive (EU) 2019/1937 of the European Parliament and of the Council of 23 October 2019 on the protection of persons who report breaches of Union law (europa.eu)

First Whistle: the easy to use and carefree whistleblowing channel (juuriharja.fi)

# Cheating prevention

November 16, 2022
Categories: Responsible mindset
Tags: Innovator

The most effective way to avoid cheating or unethical conduct online is to be proactive. A good baseline is to have every student accept the institutional or course-specific policies.

Including several assignments and continuous assessment will make unethical online behavior unattractive for the student, and analyzing it will make deviations to stand out.

The best preventive countermeasures make cheating impractical and uneconomical. Example of this is an open-book exam.
Cheating prevention recommendations (McAllister and Watkins, 2012)

1. Use extensive calendaring
2. Decrease exam weight
3. Randomize exam questions
4. Discuss academic integrity
5. Allow asynchronous learning
6. Track student submissions
7. Provide prompt feedback

Recommendations (Rogers 2006)

- Password protected exams
- Limit number of attempts to one
- Use different versions of exams
- Deliver questions one at a time
- Limit test time
- Don’t release score until all exams are completed
- Don’t release answers until all exams are completed

Use of technological monitoring solutions can be a good aid but it shouldn’t be the main driver.
Technology examples :

- https://www.spyrix.com/
- https://www.examity.com
- https://honorlock.com
- https://proctorio.com/

In case of a suspect the educator can contact the student with the question: Help me in understanding why I have a feeling that you did not do the assignment yourself? Usually asking this twice or three times (when student present) gives you the answer.

In some cases, organizing exams or tests on-campus may also be possible.

More information

Heriot Watt University. How to avoid academic misconduct in open book exams.

McAllister, C., & Watkins, P. 2012. Increasing Academic Integrity in Online Classes by Fostering the Developmentof Self-regulated Learning Skills. Clearing House, 85(3), 96–101.

Newton, D. 2021.Research Shows Remote Exam Monitoring Reduces Cheating. Forbes. – Accessed 16.5.2022.

Open book test preparation tips:. Eudcation corner.

Rogers, C. F. 2006. FacultyPerceptionsAboute-CheatingDuringOnline Te s t i n g. J. Comput. Sci. Coll., 22(2), 206–212.

Rowe, N. C. 2004. Cheatingin Online StudentAssessment: Beyond Plagiarism. Online Journal of DistanceLearning Administration, 7(2).

Swauger, S. 2020. Software that monitors students during tests perpetuates inequality and violates their privacy. MIT Technology Review. – Accessed 16.5.2022.

# Responsible and ethical research-based studying

November 16, 2022
Categories: Responsible mindset
Tags: Innovator

Responsible and ethical research-based studying requires knowledge about general research and development work ethics.

Depending on the scope to be covered, learning about ethical and responsible ways of conducting research can be implemented as multiple choice tests or other playful and engaging ways with an interactive H5P tool.

ℹ — More information
At Laurea UAS /Finland, each master's student needs to complete a mandatory study unit of Research and Development Work Ethics equaling 1 ects. The MOOC is carried out independently, on the student's own schedule.

The MOOC is interactive, composed of a self-evaluation test, several quizzes, flashcards (see example picture) and other H5P elements.

After completing this course, a student:

- has gotten acquainted with the guidelines of responsible conduct of research
- has identified one's rights and responsibilities as a researcher or thesis worker
- is able to follow and apply the guidelines of responsible conduct of research
- is familiar with the regulations related to the handling and processing of personal data necessary for studies
- is able to evaluate the necessity of preliminary ethical review in one's thesis or research.

Flash Cards H5P example:



# Copyrights

November 16, 2022
Categories: Responsible mindset
Tags: Expert

This tool helps educators to discuss copyrights and licensing standards with their learners.

Copyrights give performers and authors of creative work the right to decide on the use of their works as defined in a national copyright legislation.

Discussing the role and relevancy of copyrights is especially important in study units, where students share and create content (written, oral or visual material) with external partners or for public use.

Copyright topics can be learned about in many engaging ways. A simple way is to link content to a relevant copyright organization's pages and have students discuss relevant topics on a specific discussion forum, create a multiple choice test or gamify the topics.

🧰 — Tools
Creative Commons Licenses: https://creativecommons.org/

The higher education section "Kopiraittila Academy" is available also in English and offers a fun way to test a students knowledge with quizzes and earn a Copyright Expert badge. The badge can be exchanged into assignment points: https://korkeakoulu.kopiraittila.fi/en/etusivu

ℹ️ — More information
Examples from Kopiosto/Finland (note any national differences in the copy right legislation).

Kopiosto offers an inspiring and gamified entity for learning about copyright and licensing on various educational levels. It includes an extensive educator's material repository and many teaching tips (e.g. gamifying learning).

- The ABC of copyright – Kopiosto
- Frequently asked questions about copyright – Kopiosto
- Copyright glossary – Kopiosto

# GDPR & data management guidelines

November 16, 2022
Categories: Responsible mindset
Tags: Expert

Addressing the importance of General Data Protection Regulation (GDPR) and data management guidelines when collecting data for research work is essential. Instructions for managing personal data e.g. in thesis work can be provided by institutional level.

Educator can ask students to familiarize themselves with instructions and make sure, that instructions are taken into account before student is starting to collect the data. If students are collecting data within institution, committing to handling the information in accordance with legislation on handling personal information and privacy protection should be part of the research permit applied.

Research permit templates and applications can be offered for students to modify for their use.

ℹ — More information
Complete guide to GDPR compliance: https://gdpr.eu/

GDPR for Education: A guide to GDPR for universities (microsoft.com)

Research permits: Research permits – Laurea-ammattikorkeakoulu

Data Management Guidelines – Finnish Social Science Data Archive (FSD) (tuni.fi)

# Digital carbon footprint

November 16, 2022
Categories: Responsible mindset
Tags: Integrator

The CO2 emissions resulting from the production, use and data transfer of digital devices and infrastructure is called the digital carbon footprint.

Educators can discuss with and guide their students to adopt 'green or sustainable thinking' and, for example, favor renewable energy sources for their electricity and to take a look at their email posting manners (e.g. to avoid reply all) and come up with their own solutions for responsible digital learning.

Michele Marius (2011) has listed five ways to reduce the computing carbon footprint:

1. Turn off computers when not in use
2. Manage the PC power plan
3. Limit the use of screen savers
4. Monitor the power consumption
5. Use greener equipment/devices.

Students can be encouraged to test their digital carbon footprint: COP26 Sustainability Survey | Capgemini (amplifyapp.com)

— Tools
Global footprint network: Ecological Footprint Calculator

Calculating Digital Emissions – Sustainable Web Design

— More information
Harris .2021. A guide to your digital carbon footprint – and how to lower it: How to reduce your digital carbon footprint | World Economic Forum (weforum.org)

# Risk management

November 16, 2022
Categories: Responsible mindset
Tags: Integrator

Risk management and security issues in online studies are typically regulated by institutional policies and codes of conduct.

Additionally, an educator can add security procedures such as:

- assess risks in advance according to their probability and impact
- inform students about the data security rules and legislation
- use waiting rooms or entrance codes for online classroom access (e.g. Zoom, Teams, Google Classroom)
- require students to verify their identity in advance or via camera (e.g. in online exams or assessed assignments)
- provide expert lectures about data and cyber security.

ℹ — More information

Catyanadika. P. E. 2021. Project risk assessment of higher education online learning project during the Covid-19 crisis. World Journal on Educational Technology Current Issues 13(4):602-616

# Rules for online studies

November 16, 2022
Categories: Responsible mindset
Tags: Integrator

Students can be made aware and committed to a responsible use of the online course material and procedures by having them to confirm a set of statements. This can be implemented in an engaging way. For example, at the beginning of an online study unit, students can be asked to answer a set of multiple choice questions (created by H5P) or in a gaming format before they can proceed on the course.

The rules can be called differently, such as “Ground rules for Course XYZ” or “Code of conduct for online learning and safety”. Topics included in these online rules and policies can be manifold, depending on the institution. See exemplary attachments.

ℹ — More information
Laurea Rules for online learning

Student code of conduct, Example, Waterhouse + Rogers 2004



Code-of-conduct-for-online-learning-safety (Careerpathhigh.org)

# Online etiquette

November 16, 2022
Categories: Responsible mindset
Tags: Beginner

Students usually know how to be considerate and kind to each other and what is appropriate online behavior. Institutional policies often include general guidance for online behavior, too.

Sometimes, however, an educator needs to set down rules for behavior for a specific task, such a discussion or co-operation with an external stakeholder.

Get inspired by the examples and modify the rules to suit your institutional and local culture.

ℹ — More information

Netiquette: good online behaviour at UCL | Teaching & Learning – UCL – University College London

Netiquette | Imperial students | Imperial College London

Netiquette Guide for Online Courses – FCBE – The University of Memphis

Soler-Costa R, Lafarga-Ostáriz P, Mauri-Medrano M, Moreno-Guerrero AJ. 2021. Netiquette: Ethic, Education, and Behavior on Internet-A Systematic Literature Review. Int J Environ Res Public Health. doi:10.3390/ijerph18031212.

# Workload estimation

November 16, 2022
Categories: Learners' wellbeing
Tags: Expert

It is important that a student's estimated workload corresponds the study unit's credit points or hours. The workload can be communicated in the online study unit's syllabus or with a more detailed workload calculator.

**— Tools**

Course Workload Estimator — Rice University Center for Teaching Excellence

**— More information**

Laurea UAS Excel example in attachment (in Finnish) – Workload calculator



Workload calculator_ Opintojen_kuormituslaskuri_Laurea_v1_0

Hamimah, U., Shanti, F., Ade, S., Hashimatul, F. & Aidil A. 2020. Teaching workload in 21st century higher education learning setting. International Journal of Evaluation and Research in Education (IJERE)

Vol. 9, No. 1, March 2020, pp. 221~227

# Online studying ergonomics

November 16, 2022
Categories: Learners' wellbeing
Tags: Integrator

Students can be advised to organize short sessions for stretching/moving during class and thus avoid or lessen the attendants' adverse effects of sitting still. Students can also be guided to follow stretching or exercise videos. Alternatively, they can create series of stretching sessions which may even be recorded for later use or for those absent, and be awarded with credits for creating them.

There are also personal trainer software to be easily found in the internet and various apps such as the Cuckoo workout app to remind the student to move around every so often.

— Tools

Health Peer Educators. 10 Ergonomic Tips for Working or Studying at Home | SFU OLC: Our Learning Community – Accessed 18.5.2022.

Online Classes: Virtual Learning Tip: 4. Staying Physically Fit, Emotionally Strong | Cleveland University-Kansas City. Cleveland University. Accessed 18.5.2022.

Work-out app Cuckoo

# Promoting digital wellbeing

November 16, 2022
Categories: Learners' wellbeing
Tags: Beginner

By promoting digital wellbeing, students can become aware of the positive and negative impacts that the use of technology has on our wellbeing. Students can be informed of tools and techniques that can help them to stay focused.

For example, the educator can remind students to turn of distracting notifications while studying and promote activities away from screen during the online session breaks.

How to take care of one's digital wellbeing could be also a discussion topic for the students as well as a topic for an online peer support group.

See also: Online studying ergonomics

ℹ — More information
Digital wellbeing and privacy – Library – University of Queensland (uq.edu.au)

# Harassment prevention

November 16, 2022
Categories: Learners' wellbeing
Tags: Beginner

The primary aim of a harassment prevention system is to prevent incidents from taking place. Secondly, it allows students experiencing any kind of discrimination, harassment, bantering or similar unpleasant issues a way to report and solve the case in a sensitive way.

ℹ — More information

A harassment prevention system created by students and a student union at Laurea UAS: Harassment prevention system – IDM Toolbox

# Online peer support groups

November 16, 2022
Categories: Learners' wellbeing
Tags: Beginner

Institutions can enable online peer groups to support students' well-being. The educators can inform and guide students to participate.

The peer groups or communities may be organized as extra-curricular activities and events in many forms by student unions or organizations. The institution can act as group initiator, provide expert knowledge or monetary support but the actual group activity is managed by the group's student members.

Examples of peer groups are thesis writers' group, support groups for well-being, mental health, ability to study (facilitated by counseling psychologists), or various multicultural communities.

# Structure sessions with breaks

November 16, 2022
Categories: Learners' wellbeing
Tags: Beginner

Educators should plan online sessions with a clear structure and adequate breaks. For example, a full-day or half-day session should be divided into one-hour slots with a pre-scheduled 10-minute breaks.

Everyone should be informed when the break is coming. Keeping strictly to the scheduled time helps students to stay attentive and focused.

ℹ — More information

Rapanta, C. 2020. A guide to effective digital course design and delivery from four online teaching experts | THE Campus Learn, Share, Connect (timeshighereducation.com)

Accessed 17.5.2022.

# Creating publications

November 16, 2022
Categories: Learners' publishing strategies
Tags: Innovator

Educators can design project-based learning assignments which consist of creating large content entities such as journals, websites, or other digital publications.

The learning process is then long and entails many publishing related procedures such as a content and channel strategy, content creation (see channel strategies), editing, visualization, approval processes, copyright issues, illustration strategies (alt-texts), mastering of publication software (e.g InDesign).

— Tools
Technology to use for creating publication:

- Online Flipbook Maker
- Top 10 Instant Flipbook Alternatives 2022 | G2

— More information
Professional publication edited and illustrated by a master student (in Finnish):
https://www.theseus.fi/handle/10024/745095

# Sharing digital content online

November 16, 2022
Categories: Learners' publishing strategies
Tags: Expert

As part of learning activities, educators can ask learners to share their digital content online in public. Learners should be guided to consider, what kind of content is suitable to share, where and how and what should be taken into account e.g. in terms of copyright and personal data security before sharing their work.

Educatosr can advice students e.g. to add a watermark to their work, provide low resolution versions of their work, store all the necessary information within the files themselves (name, title and date) and hide non-obvious identifying information within the code.

— Tools
Creating and Sharing Digital Content | University of Portsmouth

# Channel strategies

November 16, 2022
Categories: Learners' publishing strategies
Tags: Expert

Publishing content online requires considering the optimal channel(s). This greatly depends on the targeted audience or stakeholder group. Reaching the right audiences may require using many different channels and tailored content for each channel.

Learning activities can encourage students to create digital content in the form of text, images, videos, or audio (see Different Content Formats). Content can be created internally for the learning community or externally for a work-life partner or wider public, such as blogs or wikis.

A channel strategy goes hand in hand with choosing the right content format and style. (See above)

— Tools
Examples of using different channels for content publication:

Blogs to reach out for a professional community.
https://sidlaurea.com/

Students writing news articles and media releases published on the web site and social media platforms (Laurea UAS): https://www.laurea.fi/en/current-topics/

Games for an interested public (see attachment, game created by Prezi)

— More information
Mobile board game for career reflection (created by Legal Design student group 5, Laurea UAS, Fall 2021)



# Programming

November 16, 2022
Categories: Learners' use of different content formats
Tags: Innovator

Educators in higher education can help learners to improve their problem solving skills by acquiring expertise in coding and programming.

Students may often lack problem solving skills and computational thinking training, both of which are important in learning programming language concepts. The way that programming is taught in schools affects how students perceive programming and their later ability to understand and use the programming concepts learnt to solve problems. The way that teaching is realised is important, too. The focus should not be on writing code but on reading code and the focus not on syntax but rather on proper application of the language.

An example of a simple programming task is to use the Pepper robot and create codes /commands for Pepper to do simple activities such as polls or give short guidance.

ℹ — More information

Attard, L. & Busuttil, L. 2020. Teacher Perspectives on Introducing Programming Constructs through Coding Mobile-Based Games to Secondary School Students.
https://files.eric.ed.gov/fulltext/EJ1279547.pdf

# Algorithms

November 16, 2022
Categories: Learners' use of different content formats
Tags: Innovator

Teaching writing algorithms requires specific expertise of the educator.

Algorithm can be defined as a process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer.

“Algorithms are instructions for solving a problem or completing a task. Recipes are algorithms, as are math equations. Computer code is algorithmic. The internet runs on algorithms and all online searching is accomplished through them.” (Rainie&Anderson 2017)

“When well-designed, algorithms amplify human abilities, but they must be comprehensible, predictable and controllable. This means they must be designed to be transparent so that users can understand the impacts of their use and they must be subject to continuing evaluation so that critics can assess bias and errors. Every system needs a responsible contact person/organization that maintains/updates the algorithm and a social structure so that the community of users can discuss their experiences.” (Rainie&Anderson 2017)

ℹ — More information
Rainie L. & Anderson J. 2017. Code-Dependent: Pros and Cons of the Algorithm Age: Experts on the Pros and Cons of Algorithms | Pew Research Center

(Accessed 10.5.2022)

# Digital products and media

November 16, 2022
Categories: Learners' use of different content formats
Tags: Expert

Learning assignments can consist of creating digital products and media such as websites, social media pages, other online media, apps or games.

The learning process is then rather long and entails many publishing and technology related procedures such as a mastering different content management systems or programming. Necessary parts may also be creating a content and channel strategy, the actual content creation phase (editing, graphic design and other visualization), approval processes, copyright issues, illustration strategies (alt-texts).

Creating digital media often requires mastering of image editing and publication software (e.g Adobe Photoshop and InDesign or different content management systems) but easier tools such as Canva can also be used.

— Tools
Canva.com

Adobe Creative Cloud: Adobe.com

— More information
Digital solutions developed for regional partners as study assignments, examples from Laurea UAS, Finland:

- An instructional video for National Courts Administration for witnesses in court – (Accessed 16.5.2022)
- Webpages for a regional partner – (Accessed 16.5.2022)
- Social media marketing in a joint project with IKEA Finland – (Accessed 16.5.2022)

More at: https://www.laurea.fi/en/current-topics/

Mobile App Development (created by Laurea students Fall 2020):



# Video content

November 16, 2022
Categories: Learners' use of different content formats
Tags: Expert

Educator can offer different kind of video content, e.g. educational videos, recorded lectures, interactive videos and animations to support learning, as well as use video as an assignment form. Students can be asked to create e.g. presentation videos of themselves or their project work, submit any assignments in video form, create instructional videos and create self- and peer-assessment in a video form.

Several examples of tools to create video assignments for students as well as to create and share videos are listed below.

### — Tools

Video creation and editing technologies:

- https://www.screencastify.com/
- https://www.techsmith.com/video-editor.html
- https://www.screencast-o-matic.com
- https://www.kapwing.com/
- https://app.biteable.com
- https://flipgrid.com
- https://obsproject.com/
- https://corp.kaltura.com/education-video-platform/
- https://nearpod.com
- https://www.openshot.org/
- https://www.panopto.com/

### — More information

Creating a video assignment for students | Tampere universities (tuni.fi)

Effective Educational Videos: Principles and Guidelines for Maximizing Student Learning from Video Content – PMC (nih.gov)

# Audio content

November 16, 2022
Categories: Learners' use of different content formats
Tags: Expert

There are several ways to use audio content in teaching and learning. Podcast / audio files enable students to listen to lecture content anywhere and anytime they wish. Podcasts can be offered as a substitute for or in combination with written material. Feedback can be given as recorded instead of a written feedback.

Podcasts can be recorded with programs such as Audacity. Once the recording is ready, the audio file is uploaded to an institutional service or service such as Google Cloud or Soundcloud.

Creating informative podcasts for civic partners or for general knowledge sharing can also be given as an assignment for learners.

— Tools
Audio – Teaching in a Digital Age (opentextbc.ca)

Audacity: free and open-source recording and audio editor – https://manual.audacityteam.org/index.html

Soundcloud audio cloud service – https://soundcloud.com/

— More information
Example podcasts created by students (in Finnish):

Theses, target audience UAS students of Laurea: Nuori – Arvostatko Untasi? von Laurea-ammattikorkeakoulu (soundcloud.com)

Agony and stress experienced by students; counseling university pastor as visiting expert: Stream Ammattikorkeakouluopiskelijan ahdistus ja stressi von Laurea-ammattikorkeakoulu

Reflections on Legal Design, master student team: Stream Oivalluksia oikeusmuotoiluopinnoista von LaureaLegal

# Grouping learners using virtual teaching assistant

November 14, 2022
Categories: Virtual assistant in collaborative settings
Tags: Innovator

To support the educators and assist in grouping learners (which can be time-consuming to organise) the virtual assistant overtakes the task. The virtual assistant enables grouping student based on different criteria depending on teacher's pedagogical goals and judgement:

*Example of near future scenario:*
The virtual teaching assistant asks the teacher how to arrange the students for the session: would s/he want grouping to be based on the same ability, mixed abilities, common interests, etc.? The teacher decides on "mixed-ability" groups. Next, the virtual teaching assistant displays the student groupings on the nearest wall. The teacher decides to make some changes, s/he drag one name, then another, to swap two students' placements into different groups. Soon the students are coming through the door. They will each see a specific colour glowing on their personal learning tablet.

ℹ — More information
Source: Vuorikari, R., Punie, Y., & Cabrera Giraldez, M. (2020). Emerging technologies and the teaching profession: Ethical and pedagogical considerations based on near-future scenarios. NEAR-FUTURE SCENARIOS, 4.1.2. Automating administrative tasks and answering common queries, Scenario 2
Find more: https://publications.jrc.ec.europa.eu/repository/handle/JRC120183

*Available today:*
Some educational apps already help educators with grouping a certain number of learners in a group, or randomly grouping them by names.
ClassroomScreen https://classroomscreen.com/
ClassDojo https://www.classdojo.com/de-de/?redirect=true
Moodle https://docs.moodle.org/311/en/Groups#Auto-create_groups

# Audiovisuals in storytelling

November 14, 2022
Categories: Content presentation
Tags: Expert

Telling a story with maps, timelines, audio clips.

🧰 — Tools
Audiovisual Highlights

1. TimlineJS Timeline (knightlab.com)
2. StoryMapJS StoryMapJS (knightlab.com)
3. Juxtapose JuxtaposeJS (knightlab.com)
4. SoundCiteJS Soundcite (knightlab.com)

H5P, if integrated in the LMS, can offer visualisations https://h5p.org/

# Administrative tasks with clerical assistant

November 14, 2022
Categories: Artificial intelligence (AI)
Tags: Innovator

Educators are often overloaded with administrative tasks. Virtual assistants can be created in order to support and take over some routine or administrative processes.

Here one example of application:

The students enter the university room and looking for seats. Once seated, an app on the students' mobile phones is activated and ask them to say their names. The voice-recognition clerical assistant performs the check-in and verifies of the students. After the check-in, successively the students' images appear on the teachers' screen showing their location in the hall with their names.

One other possibilities is that the teacher sees from the clerical assistant that most of the students have completed the assignment or that they watched video lectures or read the content assigned for that day.

ℹ — More information
Source: Vuorikari, R., Punie, Y., & Cabrera Giraldez, M. (2020). Emerging technologies and the teaching profession: Ethical and pedagogical considerations based on near-future scenarios. NEAR-FUTURE SCENARIOS, 4.1.2. Automating administrative tasks and answering common queries, Scenario 2
Find more: https://publications.jrc.ec.europa.eu/repository/handle/JRC120183

Example of software that tracks students' attendance automatically by identifying users faces: Facility Management & Attendance Tracking Smart Cloud Software | SmileMe.In

# Robot assistant

November 14, 2022
Categories: Artificial intelligence (AI)
Tags: Innovator

Provided that sufficient financial resources are available, physical robots can also be realised. Relatively well-known are, for example, Pepper and NAO, two robots that can be used in educational settings. Pepper – Humanizing Robotics & AI

A pioneer in the use of physical robots is Jürgen Handke, who has tested and investigated robots in everyday university life and in higher education teaching at the University of Marburg in various projects (e.g. H.E.A.R.T. – Humanoid Emotional Assistant Robots in Teaching). H.E.A.R.T. – Home (project-heart.de)

ℹ — More information
Robotics in Education | Use and Benefits | Purdue Online
7 Examples Of Robots In The Classroom You Should Know | Built In

# Branching scenario

November 14, 2022
Categories: Self-regulated learning experience
Tags: Expert

Branching scenarios are an interactive form of learning where students are presented with a set of potential actions and choices to go forward. When they choose a particular action, they then discover the consequences and are presented with a new challenge that builds on the initial scenario.

Common Elements in branching scenarios:

- Challenges
- Decision Point
- Choices
  - Desired Behaviour
  - Common Mistake
  - Common Mistake
- Consequences

🧰 — Tools
Branching Scenario | H5P
Branch structures – MoodleDocs
ThingLink Scenario Builder: Build Immersive Learning Scenarios

ℹ️ — More information
Branching scenario explained: branching scenario – YouTube

# Digital personal assistants – daily bots

November 14, 2022
Categories: Self-regulated learning experience
Tags: Expert

The students can be reminded by virtual assitents of appointments, submissions, planned activities, etc. or be invited to take action in the form of a dialogue; such a service can be implemented either individually as a simple bot or university-wide as a digital appointment assistant with a connection to central administration systems.

— Tools
The appointments, tasks and selection processes and decision-making processes can be managed and communicated in the form of Slack bots.
DailyBot | Slack App Directory
GreetBot | Slack App Directory

# Student’s progress notes

November 14, 2022
Categories: Learning reflection
Tags: Expert

In some learning management system (LMS) or in an additional supporting system is possible to create a space for individual progress notes for students. Depending on the features of the LMS these progress notes can be an overview of the points of course activities or an extended space – a private space shared between the teacher and each individual student. Teachers can access every student notebook, while students can only see their own.

— Tools

Use OneNote Class Notebook in Teams – Microsoft Support
Grader report – MoodleDocs
How do I use the Gradebook? – Instructure Community (canvaslms.com)

# Activity report and insight

November 14, 2022
Categories: Monitoring self-regulated learning
Tags: Expert

Activity report is a feature of learning management system (LMS). With this report an educator of a course can have an insight of the student's activity in a course. For instance, it shows what content has been viewed and how many students have seen the content.
Depending on the LMS different insights-elements can be shown.

— Tools
Activity report – MoodleDocs
Educator's guide to Insights in Microsoft Teams – Microsoft Support

# Monitoring progress

November 14, 2022
Categories: Monitoring self-regulated learning
Tags: Expert

Enabling a progress bar in the Learning management system (LMS) the students will be able to monitor their own process of learning. It can show the progress a student is making towards finishing the course according to specific criteria and requirements. The criteria can include meeting an activity's grade level or a manual checking "completed" by either the student and/or teacher or meeting the conditions previously set in the activity settings.

— Tools
Course completion – MoodleDocs
Completion Progress block – MoodleDocs

# Activity completion

November 14, 2022
Categories: Monitoring self-regulated learning
Tags: Expert

Activity completion is a feature in a learning management system that allows teachers to set completion criteria in a specific activity's settings for that and other activities. The completion requirement might be viewing, receiving a certain score or some kind of interaction with that activity. It is also possible that students mark the activity as completed, with this the students are invited to be responsible for their learning process.
By being able to see the activities that are completed or to mark the activities completed, the students are having a certain control over the learning progress.
If the activity completion is set to the whole block of activities the students are experiencing the self-regulated learning process.

— Tools
Activity completion – MoodleDocs

# Netiquetts

November 11, 2022
Categories: Communication
Tags: Integrator

Netiquets are Etiquette in technology.
Netiquette is used to refer to the unofficial code of policies that encourage polite behavior on social media platforms, online chatting sites, web forums, conferences, online meetings and other online engagement websites. It can be a challenging to communicate on the Internet without misunderstandings mainly because input from facial expressions and body language is absent in cyberspace. Therefore, these rules are meaningful especially to be agreed upon together with students.

ℹ — More information
Establishing your course netiquetts: Netiquette examples | Cal State LA

# Social space for students

November 11, 2022
Categories: Communication
Tags: Integrator

Social space for the students is a space for interaction and communication among students and between the educator and the students.
The space for communication can be: a forum, a get together channel. The educator can indicate how much s/he will be or will not be involved in their social spaces.

💼 — Tools
MS Teams Channel, Forum in Virtual Learning Environment (VLE) or other external communication area

# e-communication policy

November 11, 2022
Categories: Communication
Tags: Beginner, Integrator

An e-communication policy gives the students information: when are you available, how can the students contact you personally and through which channels.

*Example:*

You can contact me with _____ (e-mail, FB, LinkedIn, text…)
I will respond to (e-mail, chat, messages) within _____ hours, except on _____ or between _____ (hours)
I am available online (e-mail, Ms Teams, Zoom, Twitter…) _____ on _____ days.
Individual appointments (physical, Zoom, Chat, …) _____ are possible on _____ (day /time)
I accept / do not accept Facebook, LinkedIn … friend requests (until graduation).

(Bowen)

ℹ — More information
Source: E-Communication and Guidelines | Teaching Naked

# Virtual assistant offers orientation

November 11, 2022
Categories: Feedback and guidance
Tags: Innovator

At the beginning of a course in the form of initial orientation and onboarding, a virtual assistant can communicate general information and prerequisites, ask about prior knowledge, expectations and wishes, and answer course-specific questions (assessment criteria, examination modalities, etc.) by means of structured conversation processes. (Raunig 2020)

ℹ — More information
Source: Raunig, M. (2020). Künstliche Interaktionspartner* innen an Hochschulen. BoD–Books on Demand.

💼 — Tools
Conversational AI Platform | Superior Customer Experiences Start Here (rasa.com)
Rasa Open Source „machine learning framework for automated text and voice-based conversations“ consists of an NLU (natural language understanding) component and a core component, which is a “dialogue engine for building AI assistants”.

Build Chatbots | Chatbot for Developers (botpress.com)
Botpress – The open source version contains various basic modules, an NLU module for “understanding” intents and entities or “slots”, a Q&A module for simple question-answer pairs.

# Virtual assistant – reflective conversation

November 11, 2022
Categories: Feedback and guidance
Tags: Innovator

Using virtual teaching assistant: aim of promoting reflection on a specific topic area or on a practical learning task and generally learning reflection as a (learning) competence. To consolidate the learning material of a lecture, a chatbot asks students to explain the core statements of the previous lecture, asks questions and responds to the users' answers (Raunig, 2020).

ℹ — More information
Source: Raunig, M. (2020). Künstliche Interaktionspartner* innen an Hochschulen. BoD–Books on Demand.

Examples:
Are You Talking to Me? Using Chatbots for Coaching and Reflecting – OEB Insights
Rebo at Work – Rebo at Work (know-center.at) – german text

🧰 — Tools
No-Code Chatbot Builder | Landbot
Landbot.io offers structured conversations; no (free) chat text possibilites. Interaction takes place with the help of predefined answer buttons and various question types, which can be used to enter one's own name, e-mail address and other data. The tool offers creating conditions, input user-specific variables, etc. or connection to other web services. Templates available. No coding necessary.

Dialogflow | Google Cloud
"Dialogflow is a natural language understanding platform that makes it easy to design and integrate a conversational user interface into your mobile app, web application, device, bot, interactive voice response system, and so on. Using Dialogflow, you can provide new and engaging ways for users to interact with your product.
Dialogflow can analyze multiple types of input from your customers, including text or audio inputs (like from a phone or voice recording). It can also respond to your customers in a couple of ways, either through text or with synthetic speech."
Dialogflow Documentation | Google Cloud

# Answering common queries – automated reply system

November 11, 2022
Categories: Feedback and guidance
Tags: Innovator

***Artificial intelligence* based Clerical assistant – automated reply system**

Automated reply system answers the frequently asked questions that students post. To answer the questions that students ask, the system needs to build a model of the knowledge of the domain that is taught. This model also includes organisational aspects of the course (e.g. homework assignments and due dates, reading lists). Students who ask questions in the forum should be aware of whether their questions are answered by a machine or human.

**Here an example of a near future scenario:** The teacher is surprised to see that there were plenty of questions on the online forum that is used to support the class. “237 questions”. The clerical assistant replies that it had already checked them, and that the teacher must answer only a small fraction of questions during the class.
By the 4th year of the lecture, the clerical assistant has already learned how to answer them with 97% confidence. These questions are highlighted on the screen and the teacher projects them on a wall for a Q&A session.

ℹ — More information
Source: Vuorikari, R., Punie, Y. and Cabrera Giraldez, M., Emerging technologies and the teaching profession, EUR 30129 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-17302-1 (online), doi:10.2760/46933 (online), JRC120183
NEAR-FUTURE SCENARIOS, 4.1.2. Automating administrative tasks and answering common queries, Scenario 2
Find more: https://publications.jrc.ec.europa.eu/repository/handle/JRC120183

Example: 8 Benefits Of Chatbots In Education Industry – Botsify

# Clear instruction in hybrid setting

November 11, 2022
Categories: Synchronous hybrid setting and HyFlex
Tags: Integrator

The clear instructions communicate to the students the expectations throughout the duration of the class. The students will know what topics are covered, what homework to complete, when assessments happen, and other relevant information.
The clear instructions have to be posted regularly and on a prominent or previously defined place. Use links to make your plans interactive.




Image attribution: Mary Block / Twitter

# Non-verbal feedback

November 11, 2022
Categories: Synchronous hybrid setting and HyFlex
Tags: Integrator

In an intentional setting to protect bandwidth is creating a virtual room where everybody's audio and camaras are off. During such a synchronous session in order to get a verbal answer of students the educator has to wait for everybody to unmute their mics and to talk to, that is often time consuming, especially for short questions and short answer expectations. If the educator needs a quick way to get quick feedback and see it all immediately.

Non-verbal feedback can be repeatedly used throughout the lesson to get feedback from students and to know immediately if the students are following the lesson.

A non-verbal feedback tool can be on-board poll (choose/click an option), the feedback (questions and answers) can be organisational and thematically oriented.

— Tools
Poll applications in the conferencing tool or chat functionalities

# Effective interaction

November 11, 2022
Categories: Synchronous hybrid setting and HyFlex
Tags: Expert, Integrator

There are three different ways that students can interact while studying. Planning effective interactions means considering the technology and media in all three interaction ways.
Hybrid learning gives you a lot of flexibility in how to interact. These different types of interaction fall into the following three categories.

**Student–educator interactions**
Student-educator interactions means developing academic learning, where students are challenged to question ideas, and to acquire deep understanding and can include different communication channels, like emails, announcements, and discussions. The interaction with an educator is a major driver of successful learning but feels more difficult online. In the remote and technology-based communication setting is important to offer more verbal support, feedback and understandings by fostering connections, encourage dialogue, applying humour where possible.

**Student-student interactions**
Student-student interactions include discussions, collaborative group work, peer review activities.

**Learner–content interactions**
Learner–content interactions include activities, like reading content, watching a video, or working through a problem set. Using different technology different interaction can be created, for instance the students cannot progress to the next stage of learning without interacting through a test that ascertains whether they have learned sufficiently or by adding a comment box or by requiring users to enter information or make choices.

ℹ — More information
Find more in the Collaborative learning – EDUdig

# Promoting student interaction

November 11, 2022
Categories: Synchronous hybrid setting and HyFlex
Tags: Expert, Integrator

Creating community through activities that engage all students and connect in-person and remote students with each other. Activities that create a sense of belonging and motivation among all students can be created. Icebreakers are a good way to start whether or not they are in the same room or on the same screen. Pairing or grouping students into baddies can result in solving technical, organisational problems but also can influence the outcomes (pairing according MKO (more knowledgeable other) addressing the heterogeneity in group).
Creating a discussion board (for out-class connections) to help students connect with each to form study groups, whether it's virtual study groups, whether it's we go to the library, sit down and don't talk to each other but hold each other accountable.
Collaborative documents can give in-person and synchronous remote students quick ways to express themselves and work collectively. Questions or provocations posted on discussion boards can help asynchronous students step into the flow of class.
Polls are a good way to see what students are doing and to the possibility to get them engaged, and also to get them interested, because the answers in a poll can change the direction or atmosphere of the session. If students refuse to talk to each other in in-class setting as an alternative a chat and texting can be used as communication way to make them feel more comfortable.
In hybrid/HyFlex settings all students are involved. There are various activities that can be set for online engagement, for instance: quiz tools and games, such as Kahoot!, Quizlet Live, Quizizz, Mentimeter Quiz, and other.
See collaborative activities in online session.

# Inclusive hybrid/HyFlex setting

November 11, 2022
Categories: Individual learning paths
Tags: Expert, Integrator

In well-designed hybrid settings, both groups of students (distance and face-to-face) should be equally able to see and hear the tutor and each other, participate in group exercises, and ask or answer questions. In such a setting, the physical and virtual spaces will become appropriate, inclusive, and welcoming for all students as well as tutors. A tutor will be able to comfortably monitor a class and interact with students.

Holistic well-being support – is promoting, supporting, and prioritizing physical, mental, and emotional health and addressing the negative factors that affect it.

# Home-spot in hybrid/HyFlex settings

November 11, 2022
Categories: Synchronous hybrid setting and HyFlex
Tags: Expert, Integrator

In all settings, but especially in hybrid/HyFlex settings, if there are more systems (communication tool, web conference, virtual teaching environment…) in use, it is recommendable to define one home spot, as a base for all content, instructions and materials. In this home-spot the students will be able to follow and find all instructions, content, activities, dates clearly structured. It is recommendable that the main virtual teaching environment is the home-spot.

# Assign roles to students in hybrid/HyFlex settings

November 11, 2022
Categories: Synchronous hybrid setting and HyFlex
Tags: Expert, Integrator

**Assign rotating student roles**
If the educators are working without teaching assistant/ co-instructor or instructional technologists in hybrid/HyFlex settings, it is recommendable to consider asking students to prove class assistance. Assigning rotating student roles with clear expectation what that role means can help that the class flows as planned. The role of students can include monitor chat, especially the posts form remote students. This role can then be assigned to a new student each class-session, distributing the responsibility and promoting inclusion.

**Pair up students: peer 'buddies'**
Pairing up in-class and remote students is another possibility to promote inclusion and making sure that the synchronous class-sessions will flow as expected. In smaller classes such as seminars, hybrid/HyFlex educators may consider pairing up in-person and remote students into buddies. In such a setting each in-person student is in constant connection with their remote buddy with camera, chat flow, so that remote students can contribute in class-sessions and discussions.

It is recommendable that in-class students use headsets for group or pair communication to avoid unwanted noise in audio background.

ℹ — More information
Source: Hybrid/HyFlex Teaching & Learning (columbia.edu)

# Support in hybrid/HyFlex settings

November 11, 2022
Categories: Synchronous hybrid setting and HyFlex
Tags: Expert, Integrator

In hybrid and HyFlex setting additional organisational requirements have to be taken into account. It is very useful to have support from teaching assistant/ co-instructor or instructional technologists.

This support include:

- Helping the instructor test equipment and software ahead of class.
- Monitoring a live chat session. Assisting remote students and if necessary, offering them help when needed.
- Setting up breakout rooms and visiting them during small group activities, to ensure that remote students are clear about what to do, to answer questions, or to gather feedback to share with the instructor.
- Controlling / moving cameras, if the educator moves around the physical classroom, the supporting person can zoom or follow with camera. Also, assistive cameras (following the speaker movements) can be used.

# Learning materials in hybrid/HyFlex setting

November 11, 2022
Categories: Synchronous hybrid setting and HyFlex
Tags: Expert, Integrator

It is important to make all materials available and accessible that students will need for a synchronous class session and after that for learning. In HyFlex settings, the students can choose to participate fully asynchronously, and they will need to catch up with all content from synchronous classes.

Post all materials: content, recordings, etc., including class agenda, links to collaborative documents, instructions, engagement, and assessment opportunities. Make available all due dates, activity plans, and groups for collaboration.

# Technology in hybrid setting

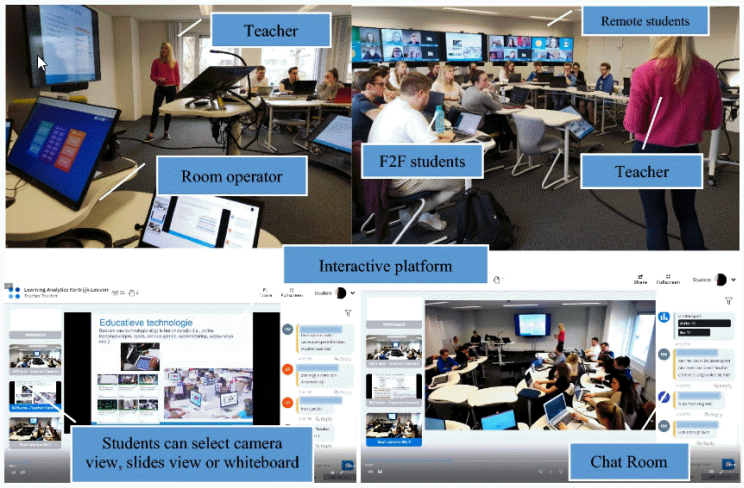
November 11, 2022
Categories: Synchronous hybrid setting and HyFlex
Tags: Expert

The technology in hybrid setting can be new for a lot of educators. It is important to familiarize yourself with the technology in the classroom.

Before the start of the course, visit your assigned classroom and test out the technology available in the room – projector, microphones, audio, adjusting camera(s), connecting your own device(s), and your positioning in the space. It is very important that the remote students can see and hear the instructor and the group. Ask support from the responsible department at the intuitions and look up the written support materials.

Fig. 2

From: A systematic literature review on synchronous hybrid learning: gaps identified




Hybrid virtual classroom including both F2F and remote individual students (upper pictures) and the platform visible for the students (lower pictures)

Figure source: Raes, A., Detienne, L., Windey, I., & Depaepe, F. (2020). A systematic literature review on synchronous hybrid learning: gaps identified. *Learning Environments Research*, *23*(3), 269-290.

ℹ — More information

Source: Raes, A., Detienne, L., Windey, I., & Depaepe, F. (2020). A systematic literature review on synchronous hybrid learning: gaps identified. *Learning Environments Research*, *23*(3), 269-290.

# Addressing in-person and remote students

November 11, 2022
Categories: Synchronous hybrid setting and HyFlex
Tags: Expert

To Include in-person and remote learners in hybrid setting can be very challenging.

It is important to design and plan the course that takes into account the students that are in-class as well as remote students.

**Netiquettes for hybrid/HyFlex setting can include:**

- guidelines for technology: when to use micro and cameras,
- guidelines for discussion: when and how to participate – chat for all, discussion slots in order to include remote and in-class students. Role of a person for monitoring chat questions.

It can be complex for an educator to balance between the two groups and may ended both groups unsatisfied. To manage this, it can be more open class discussions, lots of collaboration, and various dynamic tasks so students do not lose focus. If the remote group is small, they can be easily combined face-to-face students for group activities.

Some tips:

**Have every student log onto a video call.** This allows remote and in-person students to collaborate in small groups.

**Use chat tools for real-time collaboration and communication**. Tools like Slack, Google Chat, Microsoft Teams and others allow for real-time conversation and collaboration without requiring a video/audio set up.

**Prepare activities collaboration and interactions.** Pre-set up “cohorts” of students (mixing in-person and remote) that stay together over time. Small groups should use technology to document and share their work, making their thinking visible to all students.

Be aware **not to leave students unsupervised for a long time**. Dividing attention between the two groups in class and remote students can make both groups unsupervised and unsatisfied. But to manage this, you can have more open class discussions, lots of collaboration, and various dynamic tasks so students don’t lose focus.

**Pay attention to speaking and pronunciation.** It might be hard for the online students to catch what the in-class students and instructor say. It is often necessary to reformulate what the face-to-face or online students said to make it clear for everyone.

ℹ — More information
Find more: HyFlex_Best_Practices.pdf (luc.edu)

# HyFlex course design

November 11, 2022
Categories: Synchronous hybrid setting and HyFlex
Tags: Expert, Integrator

In the HyFlex course design, students can choose to attend face-to-face, synchronous class sessions or complete course learning activities online without physically attending class. It is important to plan each class session including the course learning objectives, the diversity of your learners, and classroom setup

Plan time for setting-up, how to engage with in-person and remote students, consider pausing to check chat and answer student questions, provide guidance and clear instructions to in-person and remote learners, learning activities.

ℹ — More information
K.Kelly: HyFlex Course Design – Example 50-Min & 75-Min Class Sessions – Google Doc:

# Story experiencing

November 10, 2022
Categories: Narrative methods
Tags: Expert

Students create the stories as a project or group work. The students develop own narrations based on interviews or other materials or data of their research or research questions. In this story they combine the findings and try to express it narratively in order to reach deep level of mastery of the content.

— Tools

**Planing stories:**

- StoryboardThat
- Wisemapping
- Storyline Creator

**Scrollytelling-Tools:**

- Storyform
- Shorthand
- Shorthand Social

— More information

Source: Thier, K. . (2021, 18. October). Storytelling – Vortrag von Dr. Karin Thier . YouTube. https://www.youtube.com/watch?v=RS_4M8iUfPI

# Story listening

November 10, 2022
Categories: Narrative methods
Tags: Expert, Integrator

Learners can be engaged in story listening activity. The learners are listening to the stories that their peers prepared, the stories can be in audio and audio-visual form. In this activity the learners can prepare the stories, that include previous knowledge, own experiences, the experiences that they learned from their peers. It is possible also to include in the story the personal reflection of learning materials or to transfer the learning material to one's own living environment, to real world experience. After the listening the stories, the learners provide feedback or answer predefined questions.

— Tools

**Intergrator**
Free, open source, cross-platform audio software https://www.audacityteam.org/
Voice recorder apps for Android or Apple

**Expert**
Making podcasts with students and make the content available for bright audience
Podcast platforms:

Get your show on Spotify https://podcasters.spotify.com
Podcast Hosting: Easy and powerful tools, with free learning materials, and remarkable customer support – https://www.buzzsprout.com/

— More information

Source: Thier, K. . (2021, 18. October). Storytelling – Vortrag von Dr. Karin Thier . YouTube. https://www.youtube.com/watch?v=RS_4M8iUfPI

# Expectations and prior knowledge

November 10, 2022
Categories: Engaging learners in synchronous sessions
Tags: Integrator

As an activity at the beginning of a seminar in order to activate learners, some previous experiences and expectations of in the course can be gathered in collaborative mind map. The participants consider what they already know about the topic and what they expect from the seminar on the basis of predefined questions. Then they enter their output in a mind map in key words and complete each other's answers.

— Tools
Possible tool:
Simple Collaborative Mind Maps & Flow Charts – Coggle
The Visual Collaboration Platform – Miro
MURAL

# A word or an image

November 10, 2022
Categories: Icebreaker activities
Tags: Beginner, Integrator

This icebreaker activity can be implemented at the beginning of an educational event/session, when the group members still do not know each other.

Each student chooses a word/image that best describes him/her or his/her life and thinks about why. Another option is to have them pick a place in the world that they would like to travel to or that best fits them.

Now students share their answers in chat or on the virtual whiteboard.

ℹ — More information
Source: 21 Free fun Icebreakers for Online Teaching and virtual remote teams (symondsresearch.com)

🧰 — Tools
**Beginner**
Possible tools: OneNote tab in MS Teams

**Integrator**
Applications for collaborative working: Padlet, Miro or a wiki

# Introduce yourself

November 10, 2022
Categories: Icebreaker activities
Tags: Beginner, Integrator

This activity is suitable for getting to know each other, it can be implemented at the very beginning. The students work in groups of two in a breakout rooms. The educator can provide them with a list of questions to ask each other. Each pair of students now interviews each other in e.g. chat..

With smaller groups: When everyone is back in the same virtual room, each student introduces his/her interview partner.

With larger groups: As results, each student posts the introduction (video, audio file, text) of his/her interview partner.

— Tools

**Beginner**
The results can be posted in MS Teams

**Integrator**
The results can be gathered in some app for collaborative working, for instance Padlet
https://padlet.com/

# Two truths and a lie

November 10, 2022
Categories: Icebreaker activities
Tags: Beginner, Integrator

Two truths and a lie activity is a good way to learn fun facts about the learners and they from each other. This game can lead to fun stories about past experiences and silly situations.
Here briefly the steps how to implement the activity:

- If the group of learners is very big, divide the learners in smaller groups. The number of learners in a group will affect the duration of this activity
- Have every person come up with two truths and one lie about themselves. Give the group some time to think.
- Once everyone is finished coming up with their two truths and one lie, each person will read them aloud. The goal is for everyone else to guess what the lie was.

ℹ — More information
Source: 21 Free fun Icebreakers for Online Teaching and virtual remote teams (symondsresearch.com)

🧰 — Tools
**Beginner**
Different tools for online conference rooms, for instance: MS Teams, BigBlueButton, https://bigbluebutton.org/

**Integrator**
Wonder – Virtual Workspace
SpatialChat | Collaborative online workspace
Poll Everywhere
Google Forms
Survey Monkey

# Hometown map

November 10, 2022
Categories: Icebreaker activities
Tags: Integrator

The hometown map icebreaker is a simple but fun conversation starter for a new group of learners. At the beginning of the first lesson the learners can post on a digital classroom as they enter the conference space. They can mark where they were born or where they live. Afterwards a coincidence may happen: some people might have been born in the same place, some might vacation in someone else's birthplace. The point is to start some conversation and eliminate the first day guard.

— Tools
Where Are You From? Icebreaker Template – Mentimeter

# Eight nouns

November 10, 2022
Categories: Icebreaker activities
Tags: Beginner, Integrator

With this icebreaker activity students are asked to generate eight nouns that best describe them on a personal or professional level. These could include personal and professional interests, activities, characteristic that they would like to share. After three minutes of individual reflection, students are encouraged to share why their set of nouns are representative of their personalities and backgrounds.

ℹ — More information
Source: IceBreaker.pdf (uwex.edu)

💼 — Tools
Beginner
Video conferencing
software in a synchronous class, allow students to reflect individually before sharing their ideas with the group

Integrator
RetroTool
Top Hat

# Collaborative resume

November 10, 2022
Categories: Icebreaker activities
Tags: Beginner

The idea of this activity is to get a glance of students' education, work backgrounds, hobbies and more. It's also a very good activity to use during the first week of semester, where students are meeting one another for the first time. Students work together (in groups) to create a group resume. The resume captures what they as a group want to get out of the course – as interests, their current knowledge of course content – as skills, previous related work experiences – as experiences, education and if any notable accomplishments – as education.

A possible framework: Group Resume Outline – Google Docs

How to implement?

- Students are divided into small groups and work in breakout rooms.
- Ask students to engage in a brainstorming session for about 10 minutes, filling in their assignment sheet.
- Ensure one person per group is designated as a team captain to submit the assignment at the end of the exercise to the LMS or an active learning platform of your choice.

ℹ — More information
Source: Top 10 Icebreakers for Hybrid Courses | Top Hat

🧰 — Tools
MS Teams, Zoom or other conferencing tool

# Movie pitch

November 10, 2022
Categories: Icebreaker activities
Tags: Beginner, Integrator

In moviemaking, a pitch is a concise verbal (and sometimes visual) presentation of an idea for a film or TV series generally made to attract the investors. As an icebreaker activity the topic for the movie can be any that the group agree upon. This icebreaker allows learners to develop their collaboration and communication skills. It is advisable to implement this method with learners that have previously met. The learners are divided into groups of five. The educator asks them to come up with an idea (and pitch) for a new movie they would like to hypothetically produce. After several minutes of preparation, the educator asks one or two students per group to share their pitch with the rest of the class. Once all groups have presented their pitches, the remaining classmates will vote on which idea they think deserves funding.

This activity is suitable for the smaller group of learners.

ℹ — More information
Source: 12 Great Icebreaker Games Your Employees Will Actually Enjoy | Elegant Themes Blog

🧰 — Tools
**Beginner**
Breakout rooms MS Teams or Zoom

**Integrator**
Communicational tools: Wonder – Virtual Workspace

# Students creating a virtual assistant

November 10, 2022
Categories: Engaging learners in asynchronous sessions
Tags: Innovator

A project idea:
Engage the students to develop a bot* as a project or final paper and use this performance for assessment. The projects in form of a bot or a virtual assistant seem particularly suitable for content and topics that can be taught in dialogue or question-answer format. (Raunig, 2020)

*Internet bot – Wikipedia

ℹ — More information
Source: Raunig, M. (2020). Künstliche Interaktionspartner* innen an Hochschulen. BoD–Books on Demand.

🧰 — Tools
Landbot.io offers structured conversations The Most Powerful No-Code Chatbot Builder | Landbot

Q&A Maker "Build, train and publish a sophisticated bot using FAQ pages, support websites, product manuals, SharePoint documents or editorial content through an easy-to-use UI or via REST APIs" Microsoft Azure QnA Maker

# Making series

November 10, 2022
Categories: Engaging learners in asynchronous sessions
Tags: Innovator

The students together with educators can be engaged to make a series based on the content of the particular course. This activity is very complex and include thorough preparation and adaptations: planning, defining what content and how will be included, dramatization, script, available tools, dividing roles, development and much more.

## — More information

An example: (PDF) My course is a series, and what is yours? (researchgate.net)

Pauschenwein, J., Kühnelt, W., & Podhovnik, E. (2021, July). My course is a series, and what is yours?. In *7th International Conference on Higher Education Advances (HEAd'21)* (pp. 1393-1400). Editorial Universitat Politècnica de València

## — Tools

Podcasts, social media, video & audio production

# Glossary

November 10, 2022
Categories: Engaging learners in asynchronous sessions
Tags: Integrator

The terms that are important for the project or the course generally can be defined in the joint work where all students participate. The students choose the items that they find important, define, explain them and post them in glossary. Categories of topics or sections can be created in the glossary. The entries can be sorted alphabetically, by category, by date, but also by author.

Here an example for the Glossary activity in Moodle
– Create glossary activity in Moodle.
– Students add the entries.
– The process runs asynchronously during the course or until the set deadline.

— Tools
Glossary activity – MoodleDocs

# Collaborative content collection

November 10, 2022
Categories: Engaging learners in asynchronous sessions
Tags: Beginner, Integrator

The students collect different resources on a topic or block of topics. The resources can be the scientific papers, but also the news or other publications.
It is important to define until when the students can collect the resources and where to store and share the collected content. Then in the next step, the students can structure the collected resources and define criteria for this.

— Tools

**Beginner**
MS Teams – file storage in a channel or a tab

**Integrator**
External tools, such as: Padlet or similar

# Low-stake quizzes to check understanding

November 10, 2022
Categories: Engaging learners in synchronous sessions
Tags: Integrator

Low-stakes quizzes that allow multiple attempts and provide meaningful feedback on students' performance can be integrated in learning process. Offering a low incentive and multiple attempts will help students to remove the pressure often associated with high-stakes quizzes/exams and encourage the learner to focus on the material as opposed to a grade.

ℹ — More information
Find more: Low and High-Stakes Quizzes in Canvas – Center for Excellence in Learning and Teaching (iastate.edu)

🧰 — Tools
On board quiz activities of LMS

Other tools:
Kahoot! | Learning games
Quizlet

# Student tutor

November 10, 2022
Categories: Individual learning paths
Tags: Beginner

This approach is appropriate for heterogeneous groups where students have different prior knowledge and experience. The more advanced students in some areas can get more engaged, bring their own experience and feature as ‘student tutor’ for the peers.

Note for educators:

- Choose some topics of your subject matter and give them as an assignment only to those students who already have deeper knowledge or experience of the topic.
- The students – student tutors – present the content to their colleagues or in small groups. Depending on their own expertise the student tutor can also provide more explanation for the peers if needed.

— Tools
**Beginner**
MS Teams Channel meeting for the small group presentation, or the plenary meeting.

# Students answering questions during the lecture

November 10, 2022
Categories: Engaging learners in synchronous sessions
Tags: Beginner, Integrator

Encouraging students to post the answers or their thoughts on the lesson content in the chat window during the lecture. The educator can ask question(s) orally or integrate them in the presentation of content. This activity works better for smaller groups. The students answer open-ended, content-related question(s) that stimulate the higher-level thinking, such as compare, classify, determine, derive, predict, identify.

Duration about 7 min

If there is one question it is recommendable to stay in the same system (for instance MS Teams chat window) but if there are more questions or the questions and answers will be used for other activities, it is recommendable to use a tool – digital wall or any online board.

— Tools

**Beginner**
MS Teams, Zoom, web conference platform integrated with LMS

**Integrator**
External tools, such as:
Collaboard
Padlet
The Visual Collaboration Platform – Miro
MURAL

# Polls in online teaching

November 10, 2022
Categories: Engaging learners in synchronous sessions
Tags: Beginner, Integrator

Online sessions can be interrupted at regular intervals with short questions about the content in real time.

**Activity 1:**
The students answer the questions by choosing yes/no or A/B/C option. These brief interruptions activate students; they leave passive – listening state and are encouraged to think and act.
There are different tools for online polls to implement this activity.
If there is only one question or one question per time it is meaningful to stay in the same system, where the meeting takes place. If there are more question other tools with more options are possible.
Duration about 1 min per question.

**Activity 2:**
Use online polls to find out about learners' difficulties. Questions like: On a scale from 1 to 10, ten being very difficult:
*How difficult do you find today's topic in class?*

— Tools
**Beginner**
MS Teams in the chat area of the meeting, an MS Form can be added and created immediately.

**Integrator**
Mentimeter: https://www.mentimeter.com
Poll.ly: https://poll.ly/
Sli.do: https://www.sli.do/

# Variety of engagement possibilities

November 10, 2022
Categories: Individual learning paths
Tags: Beginner, Integrator

In order to wake interests of students and so foster the motivation it is important to provide multiple means of engagement. Multiple means of engagement enable diverse ways for learners to be involved with course content, their peers, and the instructor. Variety of possibilities how the learners can be engaged offers the learners to choose the most suitable activity for them, to find personalised path in the learning process.

For instance:

- interview experts,
- role-playing,
- threaded discussions,
- brainstorming activities,
- team inquiry projects,
- online experiments,
- game playing, etc.

# Variety of content presentation

November 10, 2022
Categories: Individual learning paths
Tags: Beginner, Integrator

Multiple means of representation refers to presenting information in multiple ways. Educators can apply more than one way to explain a concept or provide information.

For instance:

- Content presented in video, audio, slide show
- Reading materials at multiple difficulty levels
- Reading materials with supportive resources
- Presentations at variable complexity levels
- On-demand translations for non-native speakers
- Graphic representations such as concept maps and graphic
- Illustrative representations such as diagrams and simulations

# Variety of learners‘ expression

November 10, 2022
Categories: Individual learning paths
Tags: Beginner, Integrator

Addressing the differentiation and personalisation there are multiple means of action or expression that learners can use to show what they have learned. Educators can apply more than one way to assess the knowledge that students have gained in order to address the different needs and different situations.

For instance:

- Tests with different question types
- Multiple choice
- Fill-in-the-blanks
- Short answer
- Analysis questions
- Essay questions
- Jeopardy-style quiz with answers that are presented and students have to find the matching question
- Oral presentations: in person or audio or video recording
- Written essays
- Projects that involve physically constructing something
- Creative assignments
- Assignments requiring fact recollection or application
- Portfolio, Blog, etc

Supportive elements:

- Alternate forms of text input: text, speech-to-text, predict text, touch pads
- Media-based assignments: drawings, maps, diagrams, videos, slideshows, web pages
- Reduced text assignments: outlines, concept maps, tables, graphs, hands-on activities
- Supportive tools: spelling and grammar checkers, drawing programmes, outliners
- Social networking options: blogs, wiki, online chat, instant messaging
- Shared writing and peer editing

# Involving the interest of students in learning

November 10, 2022
Categories: Individual learning paths
Tags: Beginner

To involve students' interest in learning is essential to give them freedom to choose among different activities and topics. This can be done by simply asking them about their interests and then consecutively provide those topics. While the students study the subject or topics in which they are interested, they will be motivated to dig deeper to find more. Different interests of students can be individualised or grouped.
It is also recommendable that the students have control over their learning experience, that they can have their own learning time and place.
The affinities and interests can be asked directly or with an enquiry sent to them to answer until specified date.

— Tools
Different tools for enquiry, polls: MS Forms, Google Forms, or other

# Supporting learners – motivation profile

November 10, 2022
Categories: AI technology in supporting students
Tags: Innovator

Near-future scenario: The university offers a career guidance to all new students in undergraduate programmes. The career guidance focuses in specific interest groups on different job profiles and shows possible career pathways after the bachelor's degree. Students were also told that they could take a motivation test to profile themselves and use it to discuss drivers that motivate them.

The students are asked if they wish to allow the university to use their motivation profile to suggest additional support services and activities, such as personalised time management support while studying. The automated nudges would be sent as reminders about upcoming tests and assignments with hints on study strategies.

The students could get a personalised job ads and be put in a preferential position for those companies who used such databases to call candidates in for job-interviews.
(Vuorikari et. al, 2020)

ℹ — More information
Source: Vuorikari, R., Punie, Y. and Cabrera Giraldez, M., Emerging technologies and the teaching profession, EUR 30129 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-17302-1 (online), doi:10.2760/46933 (online), JRC120183
NEAR-FUTURE SCENARIOS, 4.2.2 Supporting learners' social and emotional learning, Scenario 4
Find more: https://publications.jrc.ec.europa.eu/repository/handle/JRC120183

Existing applications:
https://www.schoolday.com/en/service
https://www.panoramaed.com/social-emotional-learning-sel

# Virtual reality

November 10, 2022
Categories: AI technology in supporting students
Tags: Innovator

Virtual reality (VR), augmented reality (AR) and mixed reality (MR) are emerging technologies that integrate virtual and real-world components that users can interact with.

The AR, VR, MR and wearable technologies can enhance the practice and enable the balance between gaining knowledge and building experience as practical training. These settings can be used for practical skills' assessment, for example how to use particular bits of equipment. The participant can record their best performance in the VR environment, and the software automatically compares it to a modelled performance.
Mixed Reality experiences provide learners with access to visual and audio information through the display, or sound system. For instance, the learners can practice the language skills by pronouncing the terms and concepts correctly.
(Vuorikari et. al, 2020)

ℹ — More information
Source: Vuorikari, R., Punie, Y., & Cabrera Giraldez, M. (2020). Emerging technologies and the teaching profession: Ethical and pedagogical considerations based on near-future scenarios. NEAR-FUTURE SCENARIOS, 4.3.2. Virtual Reality in Vocational Education and Training, Scenario 6
Find more: https://publications.jrc.ec.europa.eu/repository/handle/JRC120183

Existing applications:
Research on virtual internships in VET https://www.ntnu.edu/imtel/virtual-internship
VR in training healthcare professionals https://oxfordmedicalsimulation.com/

# Educational technology supporting language learning

November 10, 2022
Categories: AI technology in supporting students
Tags: Expert

Educational technology can complement educators in supporting the students with diverse background in learning the content in second language. The technology can augment and make language learning more relevant and contextualised for them.

The educator can use activates the use of "Immersive Reader" programme to show breaks of the complex compound nouns between syllables that makes the text easier to understand. At the touch of a button, the student can also hear the whole page read aloud and see the text highlighted at the same time – s/he finds that this helps her/him learn the right pronunciation faster. From time to time, s/he uses Alexa for doing her written homework, too: "Alexa, how do you spell….?".

There are some online translation tools. With entering the text in one language can be translated in different languages. The number of languages ca vary from tool to tool and some languages with smaller group of speakers can be missing. Using these translation apps students can perform a lot of activities, such as doing homework, as well as to keep up with the ongoing programme in the school (Vuorikari et. al, 2020). There are online tools to check language quality.

— Tools
Translate:
https://translate.google.com/
https://www.deepl.com/translator

Correct use of language:
https://www.grammarly.com/

Check language quality:
https://books.google.com/ngrams/
https://en.wikipedia.org/wiki/Google_Ngram_Viewer

Immersive reader:
https://support.microsoft.com/en-us/topic/languages-and-products-supported-by-immersive-reader-47f298d6-d92c-4c35-8586-5eb81e32a76e?ui=en-us&rs=en-us&ad=us

— More information
Source: Vuorikari, R., Punie, Y., & Cabrera Giraldez, M. (2020). Emerging technologies and the teaching profession: Ethical and pedagogical considerations based on near-future scenarios. NEAR-FUTURE SCENARIOS, 4.3.1. Edu-hacks for learning the language of schooling, Scenario 5
Find more: https://publications.jrc.ec.europa.eu/repository/handle/JRC120183

# Visual content

November 9, 2022
Categories: Learners' use of different content formats
Tags: Integrator

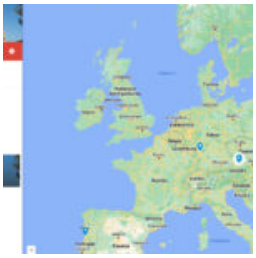
Visual content boosts learner engagement and enhances learning in multiple ways. There are a myriad of ways to create visual content, starting from use of photos, visual illustrations (symbols, icons, graphs, ), use of typography, interactive images (embedded image hotspot, e.g. with H5P or thinglink), screen captures to creating versatile infographics (e.g. charts, graphs).

Likewise, the tools to create them are many. It would be hard to exemplify just a few, thus, we introduce a few links to create visual content and to support students to express themselves visually.

🧰 — Tools
Creating content easily with curated visuals and templates:

- VistaCreate
- Canva.com
- Google Drawings
- Infogram.com (Infographics and reports)
- Piktochart.com (Infographics)
- Thinglink Interactive images
- Visual geographical maps (see example): > New > Google My Maps
- Digifloat: 21 alternatives for visual content with templates and design features
- 10 Types of Visual Content Proven to Boost Learner Engagement
- How to Leverage Visual Content in Higher Education
- How to Create 16 Visual Content Types You Need Right Now
- New Guide: Developing a Visual Storytelling Strategy for Schools and Universities
- Top 8 tools for creating highly visual digital learning content.
- Free image libraries: Freepik, Pexels, Pixabay, Unsplash, Picjumbo,Gratisography, SplitShire ….
- Google Image Search to Find Creative Commons Images

Example visual graphical map:



# Whiteboards

November 9, 2022
Categories: Learners' use of different content formats
Tags: Integrator

Digital whiteboards are good platforms for sharing content, ideating or collaborating with peers.

Whiteboards can be used for meetings (agendas, notes, memos), brainstorming, project planning, problem solving, continuous development or many similar activities.

Examples of digital whiteboards such as Flinga, MS Whiteboard, Miro, Mural or Padlet are listed below.

💼 — Tools
Conceptboard: Free training & first steps | Conceptboard

Flinga tutorial: Flinga Tutorial – YouTube

Google Drawings: drive.google.com > New > Google Drawings

Google Jamboard: drive.google.com > New > Google Jamboard

Miro: The COMPLETE MIRO Board Tutorial 2022 – Beginners to Advanced – YouTube

MS Whiteboard. Tutorial: Whiteboard help & learning (microsoft.com)

Mural online whiteboard: https://mural.co/

# Collaborative files

November 9, 2022
Categories: Learners' use of different content formats
Tags: Beginner

With one shared file, a student group can work together on the same document, see changes, and have real-time conversation.

There are several good options available, including the LMS integrated forums. As part of an assignment, the educator can make different teams to experiment with and compare various collaborative files.

Collaborative files can come in many formats and platforms. Whiteboards and visual mind maps allow joint brainstorming while LMS integrated forums or cloud services enable more robust joint learning documentation.

— Tools

Collaborate on files. Microsoft: Collaborate on files (microsoft.com) – Accessed 18.5.2022.

Top Real-Time Document Collaboration Tools for Team Productivity. BIT.ai Blog: Top 7 Document Collaboration Tools In 2022 (bit.ai) – Accessed 18.5.2022

# Personalized learning paths

November 9, 2022
Categories: Individual learning paths
Tags: Expert

An individual learning path can be a collection of personalized blocks that are grouped together (as modules). These modules ensure that students master a particular topic or program and can continue with the next module in the learning path.

Here some tips for creating personalised learning paths for the students:

**Personal learning goals for students**
The students and educators work in collaboration to develop personal learning goals, that have to be clear, relevant and future oriented. The results, outcomes, and skills, that student will achieve, have to be aligned with the goals planned together and satisfying for the student idea of future.

**Empower your students**
The personal learning path is successful if the student feels that s/he is in control of their online learning experience. The student is allowed to choose which activities (collaborating with peers on specific tasks, identifying apps to support learning) they complete next, assessments they will take, or the way they receive the eLearning content.

**Create progress markers at regular intervals**
The educator and student identify markers that show their progress towards specific learning goals. Creating periodic milestones gives the students a chance to check their own progress along their learning journey and ensure that they are on the right path.
Another benefit of these progress markers is that they allow both educators and students to determine whether any changes are required in the learning path to ensure the accomplishment of each goal.

**Clearly define how the learning will be assessed**
The last step in creating personalized learning paths is clearly defining how learning will be assessed.

# Recorded learning videos

November 9, 2022
Categories: Individual learning paths
Tags: Expert

Providing learning videos can foster individual learning paths. The educator can make the content independent of time and place by recording it and offering the lesson content to the students. With recorded videos, students can work with the learning material at their own pace. There are some tools to quickly record and share a video.
It is advisable to record short videos or videos in sequences regarding one topic.
The videos can also contain some instructions that can explain the students to understand the assignments or frequently asked questions can be answered in videos as well.

— Tools

- **Loom**: Recording of screencasts, optionally with webcam, additional editing of the videos possible. https://www.loom.com/use-case/education

- **Opencast**: Recording of screencasts as video. https://studio.opencast.org/

# Content contains flashing and animation

November 9, 2022
Categories: Creating accessible and inclusive content
Tags: Expert

The content that contains flashing at certain frequencies can cause photosensitive disorder. Instead of viewing the flashing material, the individuals with photosensitive disorder will be able to fully experience the content if the text alternatives are offered.

*Blinking* – the switch back and forth between two visual states – can cause a distraction problem. Blinking can be allowed for a short time as long as it stops (or can be stopped). Blinking usually does not occur at speeds of 3 per second or more, but it can. If blinking occurs faster than 3 per second, it would also be considered a flash.

*Flashing* – a pair of opposing changes in the relative brightness of any point in a colour space, normalized to 0 for darkest black and 1 for lightest white – refers to content that can trigger a seizure (if it is more than 3 per second and large and bright enough). This cannot be allowed even for a second or it could cause a seizure. And turning the flash off is also not an option since the seizure could occur faster than most users could turn it off.

*Animation* – Some content can include animated motion. An element which moves into place or changes size while appearing is considered to be animated. Some users can experience distraction or nausea from animated content. If the content includes animated motions, it is important to enable interaction that user can prevent that animation while navigating through the content.

Source: (WCAG 2.1)

ℹ — More information
Source: WCAG 2.1, Understanding Guideline 2.3: Seizures and Physical Reactions (w3.org)

Source: WCAG 2.1, Understanding Success Criterion 2.3.3: Animation from Interactions (w3.org)

# Plagiarism checkers

November 9, 2022
Categories: Learners' awareness of intellectual property rights
Tags: Integrator

To avoid copyright violations students must be taught how to avoid plagiarism by referring to other texts and use citations correctly.

Plagiarism checkers can be integrated in the learning platforms or used separately. The checker makes visible the degree of copied texts and possible plagiarism for both the educator and the students.

There are many kind of plagiarism checkers available, for free or as licensed tools such as Ouriginal/Urkund. They offer students an easy way to check their copy but the most advanced tools offer a versatile approach for educators to prevent and detect plagiarism. It is important that the educator can correctly interpret the results of the plagiarism check.

— Tools

Online Plagiarism Checker | Copyleaks

Ouriginal: Guides & tutorials – Ouriginal

Online Plagiarism Checker – 100% Free Plagiarism Detector (rewriteguru.com)

Saint Paul's High School. Plagiarism and Academic Honesty: Types of Plagiarism. Guide to explain what plagiarism is and the consequences. Includes a tutorial and quiz that can be used for classes.

— More information

Eaton, Sarah Elaine. 2021. Plagiarism in Higher Education: Tackling Tough Topics in Academic Integrity. 230 pages.

# Enough time

November 9, 2022
Categories: Creating accessible and inclusive content
Tags: Integrator

Some students with difficulties or impairments will need more time to complete some tasks than the others: they may take longer to respond, they may have low vision and take longer to find things or to read them, or they may be accessing content through an assistive technology that requires more time.

Taking into consideration the possible disorder it is advisable to provide those students with more time.

There are a lot of settings that can be offered for the special uses, here just to mention few: to turn off or adjust the time limit, pause, stop the time, enable interruptions, information about the timeouts that could cause the loss of the data, etc. (WCAG 2.1)

One example for quizzes: it is possible to provide more time in automatically set activities

+ − More information
Source: WCAG 2.1, 2.2 – Enough time, How to Meet WCAG (Quickref Reference) (w3.org)

+ − Tools
Settings in Moodle

The setting option *User override* enables to edit a password, change the quiz begin or end, to adapt the time limit and to edit the number of attempts for one or more students.

Find more about this setting: Quiz settings – MoodleDocs

# Clear and understandable language

November 9, 2022
Categories: Creating accessible and inclusive content
Tags: Integrator

Some of the students that have diverse language backgrounds can have difficulties in understanding the text. Using plain and clear language can help them to read, understand and use the information you are giving them in comparation with the complex, expert language with uncommon words that may be inaccessible to them.

In order to help those persons, there can be available additional or parallel resources that contain:

- easy to understand words
- simple tense
- short blocks of text
- unambiguous content

+ − More information
Some examples:

Source: Use clear and simple language – Federation University Australia

| **Complex** | **Simple** |
|---|---|
| advantageous | helpful |
| ameliorate | improve |
| commence | begin, start |
| due to the fact that | because |
| endeavour | try |
| erroneous | wrong |
| leverage | use |
| optimise | perfect |

| | |
|---|---|
| pertaining to | about, of, on |
| proximity | near |

# Basic knowledge

November 9, 2022
Categories: Learners' awareness of intellectual property rights
Tags: Beginner

All educators and students need to respect intellectual property rights in their content creation. For raising awareness and discussing the topic, educators can refer to existing open educational resources (OER) or other sources of IP principles.

- More information
  - EUIPO European Union Intellectual Property Office: IP in Education – Observatory (europa.eu)
  - Muller, Stan. 2015. Introduction to IP: Crash Course Intellectual Property #1 – YouTube
  - Teacher training. Ideas Powered@school: @SCHOOL | Ideas Powered

# Help learners understand the navigation in the course

November 9, 2022
Categories: Creating accessible and inclusive content
Tags: Integrator

Some students with learning difficulties und disabilities can struggle or be unable to learn the design patterns in the course. Providing some simple and conventional elements, icons and visual patterns can help them to distinguish important parts and structure of the content. It is therefore important when creating the course to have clear structure.

Here some tips:

- Use headers, labels, and other posts in the course to help students know where the important content, activities, and other elements are.
- Use a familiar design
- Use a consistent visual design
- Make the structure of the course simple and clear
- Make each step clear: what to do next

# Meaningful use of social media

November 9, 2022
Categories: Learners' digital identity
Tags: Expert

Social media is a powerful communication tool and educators can have a role in teaching, how to use it meaningfully.

Students should understand how posting and sharing affects their identity. They should be advised to question their content before posting and THINK what they are going to post: “T – is it Truthful?; H – does it Help?; I – does it Inspire?; N – is it Nice or Necessary?; K – is it Kind?”

Social media channels can work as a portfolio by showcasing students aptitude. Educator can guide students to create LinkedIn page that shows e.g. their competencies, interests, passion and accomplishment and can help them to get a job.

Use of social media can be part of teaching and used as learning environments. Educator can e.g. create a blog or a Facebook page and ask student to participate in content creation and discussion meaningfully.

Educator can also guide, which people and organisations are relevant in terms of their studies to follow.

ℹ — More information
25 Easy Tips for Using Social Media Responsibly | SmartSocial.com

# Profile pictures

November 9, 2022
Categories: Learners' digital identity
Tags: Integrator

In most LMS's students can upload and manage their own profile photos or thumbnail pictures.

Profile pictures are a tool to make the course community more welcoming and personal. Profile pictures make it easier for the educator and students to get to know each other and help speed up community trust.

In some cases, real faces, including professional quality pictures, are a must. However, in certain cases or as an educational activity, the educator can opt that course participants can choose another profile picture, such as representing geographic locations, pets, automobiles, caricatures, and avatars.

The representations can be discussed and agreed upon together. The photo or graphic representation cannot contain elements that might be interpreted as vulgar, prejudicial, inflammatory, gang-related, violates copyright laws, or are otherwise found to be offensive to other students or to faculty.

— Tools

- Canvas: Canvas – How to Edit Profile – YouTube
- Moodle: Adding a Profile Picture in Moodle – YouTube
- Microsoft Teams: Profile Picture and Settings in Microsoft Teams – Teams Tutorial Part 2 – YouTube
- Zoom: How to Add Profile Picture in Zoom (No Camera) – YouTube

# Creating professional digital identities

November 9, 2022
Categories: Learners' digital identity
Tags: Beginner

A digital identity is a representation of each user in the educational community. Each digital identity contains an inventory of attributes that represent a person. Digital identities ensure that systems can recognize, protect, and serve users, such as by providing access to the applications each individual needs. A digital identity is also about how the individual feels about or wants to be seen and can manage her/his reputation online.

The nature of online learning provides a structure for digital interactions and a safe environment in which students can develop or enhance their digital identities relative to educational pursuits. Educators are in a position to help students develop a professionally acceptable digital identity and make contributions as citizens in digitally connected democratic societies. This can achieved by developing students' capacities to meet employers' needs, leveraging currently used social media platforms, learning management systems, e-portfolios, and other tools, and by promoting or modeling appropriate engagement through development of digital identity. (Salman, n.d.) One example is creating a LinkedIn profile as a learning assignment.

ℹ — More information

S. Babić, M. Krešić and K. Kucel, 2014. "E-education 2.0: Students' digital identity and online learning activities," 2014 37th International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO), 2014, pp. 756-761, doi: 10.1109/MIPRO.2014.6859666.

Munoz, M. A. 2020. 5 Tips for Building Your Online Identity (linkedin.com)

Salman, T. B. n.d. Who Am I Online? Cultivating Students' Digital Identity Practices: Chap4Advances.pdf (cityu.edu)

# Online projects with public sector

November 9, 2022
Categories: Learners' civic participation
Tags: Innovator

One approach to civic participation is to work with public sector and address their issues by developing solutions to their challenges as learning projects (project based learning, learning by developing.)

Laurea UAS's example of regional development means engaging interaction and collaboration with work-life partners, including the public sectors. The co-operation can involve research, development and innovation activities conducted by students under the educator supervision.

The learning by developing projects are conducted as research-based approaches. The educator's role is to facilitate the process, coordinate the online sessions, provide a theoretical knowledge base, support and guide student groups in online sessions or on the LMS platform.

ℹ — More information
Laurea UAS Work-life partnerships: https://www.laurea.fi/en/key-partners/

# Writing or copyediting an article in Wikipedia

November 9, 2022
Categories: Learners' civic participation
Tags: Innovator

As a course assignment, students can be asked to contribute to Wikipedia collaboratively. They can either copyedit or add content to an existing article or create a new one.

More information
Wikipedia:Contributing to Wikipedia – Wikipedia

# Online petitions

November 9, 2022
Categories: Learners' civic participation
Tags: Innovator

Online petitions are one form of civic engagement. Students can become change makers by discovering unjust or unfair practices which need to be addressed by renewed or updated legislation.

There are several channels for creating an online petition and collecting the needed signatures for it. The process provides an opportunity for students to form their opinions, discuss and align a variety of perspectives, network and have an impact in the society.

ℹ — More information
Open petition by EU: https://www.openpetition.eu/
The world's platform for change: https://www.change.org

# Letters to the editors

November 2, 2022
Categories: Learners' civic participation
Tags: Innovator

As part of the course, students can write a letter to the editor of a national/local/field-specific media of a topical issue. The best ones may be published and all students get experience of how to influence and try to make things better constructively.

The work process might include collaboration in editing, for instance in OneDrive or Google Docs.

### Tools

- OneDrive: https://office.live.com/
- Google Docs: https://docs.google.com/document/

# Blog writing

November 2, 2022
Categories: Learners' civic participation
Tags: Expert

Students can write blog articles as study activities for participating public discourses. A variety of perspectives can be taken, such as a student perspective or a field-specific/professional perspective.

The writing activity may include participation into civic, social or professional activities. For example, participating first to an event and reporting about it in a blog.

ℹ — More information
A service design related blog by Laurea UAS master students: https://sidlaurea.com/

# Volunteering online

November 2, 2022
Categories: Learners' civic participation
Tags: Expert

As part of the course or as an individual project, student's can be asked to take part in volunteering online. There are several possibilities available e.g. editing photos, transcribing documents and proofreading other's work.

Students can be asked to share their volunteering experience to other students e.g. with video, blog or discussion forum post etc.

ℹ — More information
Possibilities for volunteering online: 9 Places to Volunteer Online (And Make a Real Impact) | DoSomething.org

Volunteer Centre of the University of Warsaw – Project "Make it visible":
https://wolontariat.uw.edu.pl/make-it-visible/

# Co-authoring articles

November 2, 2022
Categories: Facilitating learners' collaboration
Tags: Innovator

Co-authoring an article can be a way to deepen the collaboration between the students. Articles can deal with e.g. a project, where students have been working together and it can be part of institutions own series of publication or a journal. Educator can have a role as an active mentor by writing with the students or as an editor.

ℹ — More information
Benefits of Co-Authoring With Students (rapidintellect.com)

# Break-out rooms / team platforms / group spaces

November 2, 2022
Categories: Facilitating learners' collaboration
Tags: Integrator

Breakout rooms are sessions that are split off from the main meeting in Zoom, Teams, Google Meet or similar online platforms. They allow the participants to meet in smaller groups, and are completely isolated in terms of audio and video from the main session. Breakout rooms can be used for collaboration and discussion of the meeting.

💼 — Tools
ZOOM – Enabling breakout rooms.

Flipped Classroom Tutorials: How to use Breakout rooms in Zoom for Teaching and learning.

TEAMS: Use breakout rooms in Teams meetings.

GOOGLE MEET: Flipped Classroom Tutorials: Create Google Meet Breakout Rooms in Advance.

Flipped Classroom Tutorials: How to use Breakout Rooms in Google Meet.

Gharani, L.: Learn ALL about Breakout Rooms in Microsoft Teams (2021).

# Collaborative tools and platforms

November 2, 2022
Categories: Facilitating learners' collaboration
Tags: Integrator

Student groups can be divided to work on their own collaborative online platforms, such as OneDrive Google Drive, iCloud, Miro, Padlet, MS Whiteboard etc.

Train the students first to use the platform. Good formats are a “How to” guide or a short instructional video.

The educator can follow and monitor each group’s progress on the platform. Some of the platforms allow the educator to see different versions, who has contributed or been active.

Wonder.me is an example of a next-generation collaboration platform which makes collaboration a more fun and engaging experience.

- It creates a shared space that connects everyone to their team and the shared mission.
- It makes work and social interactions visible to others who are not immediately participating.
- It makes unscheduled interactions easy for everyone allowing teams to interact with each other in verbal and nonverbal ways.

Hubs Mozilla enables meeting, sharing and collaborating together in private 3D virtual spaces.

💼 — Tools
Examples of platforms and cloud-based services for collaboration

Collaborative documents or white boards:

- OneDrive
- Google Drive
- iCloud
- Miro
- Padlet

Collaboration forums for interaction and networking:

- Wonder.me: https://www.wonder.me/
- SpatialChat: https://spatial.chat/Hubs
- Mozilla: https://hubs.mozilla.com/

# Informal peer community groups

November 2, 2022
Categories: Facilitating learners' collaboration
Tags: Beginner

Yearly intake student groups can be encouraged to form an independent and informal peer group and use it for fast sharing of information, peer support, feedback, etc. This enhances feeling of belonging, supports ‘weak’ learners, reduces misunderstandings in relation to study guidelines and deadlines among other things.

— Tools
Facebook, WhatsApp, etc.

# Course policies for communication

November 2, 2022
Categories: Facilitating learners' collaboration
Tags: Beginner

For students it is important that they know which are the ways for communicating during an online study unit.

For example, the group can be instructed to use a designated forum (such as a discussion forum) for any course related questions: “Before asking a question, read the instructions. Ask your question in the discussion area. One of the other students may have a similar question or be able to answer your question.”

See Effective educator-student communication.

# Intercultural communication

November 2, 2022
Categories: Facilitating learners' interactivity
Tags: Innovator

Educators and students work and learn in increasingly intercultural and inter-generational online contexts. This requires thoughtful accommodations in regard to the challenges of the online medium and language socialization in order to reach positive learning experiences.

Each learning context is different, thus requiring a lot of cultural knowledge and agility from the educator. The educator should be aware of common challenges and barriers to intercultural communication, explore the development of intercultural sensitivity, and learn effective language use strategies for intercultural contexts and the cultural dimensions that may impact intercultural communication.

Some reading tips enable educators to familiarize themselves with this wide area and become aware which intercultural interaction qualities are in need for them personally or for the students. These include elements such as the integrity of formation of personal qualities and abilities, the ability to switch from one culture-specific code to another, taking into account their differences, flexibly vary communication strategies and tactics, maintain a positive attitude; choice of verbal and non-verbal means (Balanaieva & al. 2020).

ℹ — More information

Balanaieva, O. & al. 2020. Development of Skills of Intercultural Communication in the Process of Studying at Higher Educational Institutions. International Journal of Higher Education. Vol. 9, No. 7;

Griffith, R. L., Wolfeld, L. Armon, B. Rios, J. & Liu, O. L. 2016. Assessing Intercultural Competence in Higher Education: Existing Research and Future Directions. ETS Research Report Series.

Gupta, S. & Gupta S. 2022. Massive Open Online Courses: Promoting Intercultural Communication. In: Handbook of Research on Teaching Strategies for Culturally and Linguistically Diverse International Students. Abstract.

Sadykova, G., & Meskill, C. (2019). Interculturality in online learning: Instructor and student. accommodations. Online Learning, 23(1), 5-21.

# Online reflection + presenting team time for feedback

November 2, 2022
Categories: Facilitating learners' interactivity
Tags: Innovator

Holding and following students' or groups' online presentations is often time-consuming. Every student group deserves feedback, yet, giving it in front of the whole group can be tiresome. A good process for presenting and feedback can make the online presentations more engaging to all.

An exemplary process includes well-timed presentation slots, quick instant feedback and an additional group-specific reflection time

**1) Main room for quick and time-limited presentations**:
Presenting 5-15 minutes (multiply by number of presenting students or teams).

**2) Main room**: Short comments and first impressions given by the educator, one peer group or appointed audience members, 3-5 minutes

**3) Break-out / team rooms for feedback reflection and self-evaluation**:
Topic / team specific feedback and discussion 30-60 minutes.
The educator circulates in each break-out room to answer further questions.

**4) Main room**: joint wrap-up 10-20 minutes
Issues raised up in the break-out rooms can be further addressed. Further analysis and next steps.

This process model can be implemented in Teams, Zoom and most LMS's.

# Virtual learning cafe

November 2, 2022
Categories: Facilitating learners' interactivity
Tags: Expert

Wonder.me is an excellent platform to create a well-functioning learning café setting online. It enables participants to join pre-created topic rooms, video enabled interactions and to move freely between topic spaces.

— Tools
Wonder
https://www.wonder.me/about

World Café virtually. worldcafe.eu.
https://www.worldcafe.eu/en/virtual-world-cafe/

— More information
How to organise and facilitate a virtual World Café? – Barbara Covarrubias Venegas (barbaracv.com)
Accessed 25.5.2022.

# Audio discussion boards

November 2, 2022
Categories: Facilitating learners' interactivity
Tags: Expert

Instead of just using written discussion boards, you can let learners to share their voice and video on audio discussion board such as Flipgrid or Padlet.

💼 — Tools
Flipgrid: https://info.flipgrid.com/

Padlet: https://www.padlet.org

# Audio or video feedback

November 2, 2022
Categories: Facilitating learners' interactivity
Tags: Expert

Voice recordings are a nice way to engage students and let them hear the educator's voice with verbal and non-verbal cues.
Students can also be enabled to submit their assignments as voice recordings.

Many LMS's (Moodle, Canvas, Blackboard) enable voice recording for audio feedback.

Showbie is an example of a digital classroom which enable feedback as audio files. Flipgrid is an example of audio discussion boards where students can create and post audio and video recordings, or receive feedback by audio or video.

— Tools
Submitting audio or video feedback in Canvas: Submitting Audio / Video Feedback to a Student | Instructor Guides | Canvas @ Yale

Showbie, a digital classroom enabling audio feedback: https://www.showbie.com/features/

Creating audio discussion boards with Flibgrid: https://info.flipgrid.com/

— More information
Whitaker, Sarah. 2021. Engaging Learners in Online Classes – YouTube – Blackboard Inc.

# Effective educator-student communication

November 2, 2022
Categories: Facilitating learners' interactivity
Tags: Expert

Educators need to adapt their communication for online contexts and have a strategic approach in interacting with students and other important stakeholders online. The baseline is to follow an institutional communication strategy or plan which may, nevertheless, need to be adapted for online study unit specific needs. Communicating with students requires a nuanced, thoughtful approach.

Some good tips are given in Pathify playbook:

- Be selective about the messages sent, via what channel and how often.
- If it's not personalized, it doesn't matter.
- The approach to communication needs to be unified across the institution

ℹ — More information

Mancilla, R. & Hamman, N. 2022. Asynchronous communication strategies for successful learning design partnerships. THE Campus. Accessed 15.5.2022.

Pathify Playbook: How to Effectively Communicate in Higher Ed. 2021. Accessed 16.5.2022.

Sipe, M. 2021. Student Communication Plan Fundamentals for Higher Education. stamats. Accessed 16.5.2022.

Success Strategies for Online Communication. Nova. Accessed 16.5.2022.

# Polls, votings

November 2, 2022
Categories: Facilitating learners' interactivity
Tags: Integrator

Polls and voting activities are one way of keeping students active during online classes.

Polling can be realized with many different technical tools, often integrated in the LMS's or digital classrooms such as Teams or Zoom.

Examples of other voting tools are Kahoot, Miro, Tricider, Doodle. Another simple approach is using a Padlet wall: create posts and allow likes for the posts. The number of hearts shows which idea/topic was most liked.

Polls, questionnaires or small surveys can also be created using MS Forms or Google Forms.

— Tools
Kahoot: Polls and word cloud in Kahoot! | How to fuel audience interaction

Mentimeter: Poll Maker: Create Live & Interactive Polls Online – Mentimeter

Tricider – collecting ideas and voting: Tricider.com

Miro whiteboard has a specific voting function: Voting – Miro Support & Help Center in Miro

Doodle: Polls for appointment scheduling, surveys, questionnaires: https://doodle.com/free-poll

Poll Everywhere: https://www.polleverywhere.com/

— More information
Whitaker, Sarah. 2021. Engaging Learners in Online Classes. Blackboard Inc.: Engaging Learners in Online Classes – YouTube

# Posting opinions in discussion forums

November 2, 2022
Categories: Facilitating learners' interactivity
Tags: Integrator

Learners can be asked to post their ideas or opinions in discussion forum and to comment other learner's posts. In order to enable a good conversation, discussion prompt should be well constructed. Educator should consider e.g. the objective of the discussion, difficulty level of the discussion and the interaction sequence. Educator should also provide detailed instructions about posting and interacting with peers.

Learning management systems such as Canvas offer a possibility to create graded discussions, which allows the educator to assign, follow and grade the discussions.

💼 — Tools
Graded discussions with Canvas: Graded Discussions: Hybrid & Online Teaching Training Course (uw.edu)

# Anonymous questions

November 2, 2022
Categories: Facilitating learners' interactivity
Tags: Integrator

If students are too shy to ask questions (e.g. in a big groups where they do not know each others), the educator can offer a possibility to write their questions anonymously e.g. in Padlet or Miro without logging in.

— Tools

- www.padlet.com
- www.miro.com

# Camera on for XX number of students

November 2, 2022
Categories: Facilitating learners' interactivity
Tags: Beginner

Students are sometimes reluctant to open their cameras during online sessions. Reasons for this may by lacking line capacity, shyness, unpreparedness or anything similar.

At the same time, it is frustrating for educators to speak to a black screen and completely lack vision-based human interaction.

One good practice is to agree with students that in each session certain number of students will keep their cameras on. Students can be made to agree among themselves in the chat or in other channels (e.g. in their team meetings beforehand), which ones are in turn to be visibly present in a given online session.

While speaking, cameras must be on.

# Chat room/box

November 2, 2022
Categories: Facilitating learners' interactivity
Tags: Beginner

Using chat during an online classroom educator can ask learners to show their feelings with emojis, share their comments and ask questions.

💼 — Tools
Zoom, Teams and Google meet have all chat box available.

# Referencing tools

November 2, 2022
Categories: Referencing approaches for learners
Tags: Innovator

Referencing or citation management tools enable a consistent and correct use of a chosen citation style.

💼 — Tools
Good Reference Management Tools for Manuscripts and Theses – Enago Academy

EndNote: A tool for managing and publishing bibliographies, citations, and references.
https://endnote.com/

Mendeley: A tool for reference management and for collaborating and sharing your work.
https://www.mendeley.com/?interaction_required=true

Zotero: A tool for managing and organize different resources and for sharing research.
https://www.zotero.org/

RefWorks: A tool for managing and organizing bibliographies.
www.refworks.com

Citavi: https://www.citavi.com/en

# Referencing standards

November 2, 2022
Categories: Referencing approaches for learners
Tags: Expert

The are several referencing standards, also called citation styles, to indicate the author or source used in the teaching and learning materials.

The citation style depends on the institution and academic discipline involved.

Educating students to learn about and utilize the standard properly can be done in many engaging ways in digital environments.

Examples: tests, quizzes, multiple choice tests

💼 — Tools
What Do You Know About Referencing Styles? Quiz – ProProfs Quiz

Quiz & Worksheet – Formats for Citation | Study.com

Quiz – Harvard Referencing – Library Guides at Victoria University (vu.edu.au)

# Cross-checking information

November 2, 2022
Categories: Organizing, synthesizing strategies for learners
Tags: Expert

Use of multiple methods for searching data will increase credibility of the information and add a variety of perspectives for the topic.

The approach is based on online group work. Each small student group is advised to use a different methodology (e.g. text analyses of different digital sources, an online survey or online interviews). The approach is similar to an interpretive case study.

The results can be discussed asynchronously on an online discussion forum or in a synchronous discussion session online (e.g. Zoom, Teams). For enhanced learning, students from various small groups can be reorganized into different small groups and break-out rooms.

ℹ — More information
Using multiple sources. Lumen Guide to Writing: Guide to Writing (quillbot.com)

Hammond, M. & Wiriyapinit, Mi. (2005). Learning through online discussion: A case of triangulation in research. Australasian Journal of Educational Technology. 21. 10.14742/ajet.1321.

# Information processing

November 2, 2022
Categories: Organizing, synthesizing strategies for learners

Organizing and processing information is a very personal skill and unique to each student. However, the educator can teach about different approaches and platforms to organize, process and synthesize information.

Retrieved information can be stored and categorized based on, e.g. the LATCH technique. LATCH is a model for organizing information according to Location, Alphabet, Time, Category, Hierarchy. The model was created by Richard Saul Wurman in1990 (Information Anxiety).

Many online platforms can be used to organize information. Examples of data storage and management systems are cloud storage services (Dropbox, Google Drive, Cloud storage) or more versatile collaboration and work management tools such as Trello, Airtable, Asana or Miro. These platforms offer many opportunities for team work, project planning, task management, and file management, Many of them offer free educational license.

ℹ — More information

Kashyap, V. Top 17 Trello Alternatives: List of Project Management & Kanban Software. https://www.proofhub.com/articles/trello-alternatives

Malamed, C. 2020. 10 Ways To Organize Instructional Content.Information Architecture for Learning. – 10 Ways To Organize Instructional Content (theelearningcoach.com)

Muchmore, M. & Duffy, J. 2022 The Best Cloud Storage and File-Sharing Services. – The Best Cloud Storage and File-Sharing Services for 2022 (pcmag.com)

GetAppComparison of web-based project management software. https://www.getapp.com/p/sem/project-management-software/

Wurman, R. S The 5 ways to organize information. – https://www.youtube.com/watch?v=Ak6nIJHlRcA

# Organizing information

November 2, 2022

Categories: Organizing, synthesizing strategies for learners

There are plenty of platforms and tools to organize information. The LATCH principle (Location, Alphabet, Time, Category, Hierarchy) provides five methods that we can choose from to organize anything.

One example of organizing information is a mind map. “Mind mapping means the technique for visualizing relationships among different concepts. Mind mapping has been widely used in education in brainstorming ideas, training and development, organizing ideas and problem solving.

Mindmaps are similar to a concept map. Mind maps are also kind of graphic organizer, which is described as two-dimensional visual knowledge representations, including flowcharts, timelines, and tables. They show relationships among concepts or processes by means of spatial position, connecting lines and intersecting figures.” (Guoqing 2014.)

One can also create lists or collections or place priority on key information. (Ho/www.lifehack.org)

Other tools: Trello, Airtable, Google Drive, Padlet, Miro ….

— Tools

Mindmapping tools:

- MindMup
- Mindomo
- Mindmeister
- Mindly
- Popplet

— More information

- Leon Ho: https://www.lifehack.org/854926/how-to-organize-information (10.5.2022)
- Meta analysis 2014 (China): The Effect of Mind Mapping on Teaching and Learning

# Source reliability

November 2, 2022
Categories: Searching, selecting strategies for learners
Tags: Integrator

Being able to search for high-quality online sources requires knowledge of the topic area, field-specific media and the general media landscape. Common source credibility criteria apply, but field-specific criteria may be more critical. Thus, each educator should address this topic of recognizing reliable sources, detecting misinformation, disinformation and fraud news from facts.

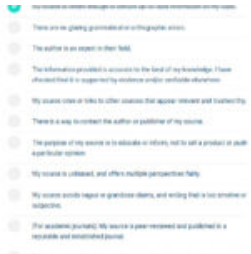
For general source credibility, the educator can create – together with students – a multiple choice test or a check-list as illustrated in the Sribbr example (attachment).

This topic relates to discussing media literacy.

— Tools
**Scribbr**: Credible sources and how to spot them – https://www.scribbr.com/citing-sources/craap-test/

— More information
**BUY Library**: Step-by-Step Guide & Research Rescue: Evaluating Credibility

Checklist source credibility:



# Media literacy

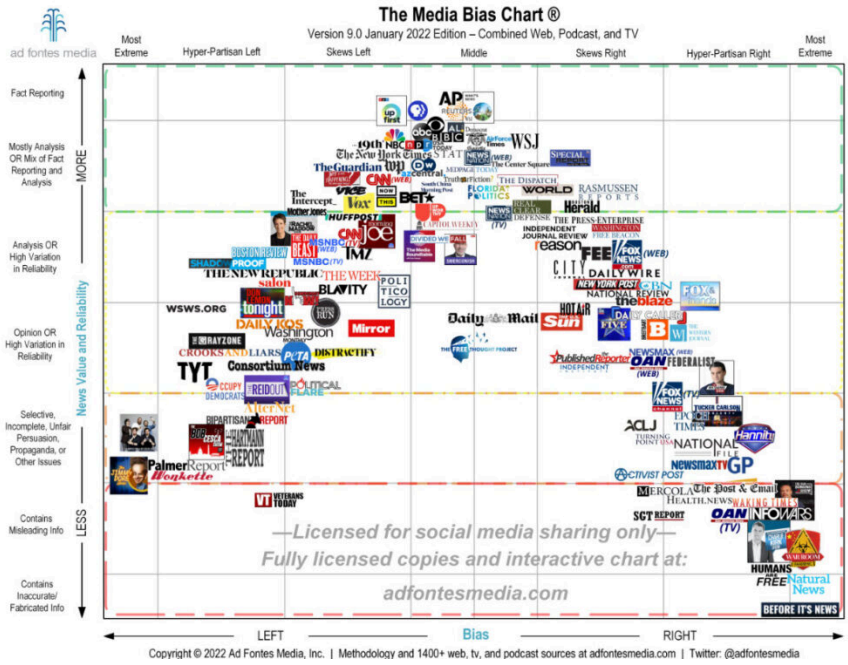
October 29, 2022
Categories: Organizing, synthesizing strategies for learners
Tags: Expert

Information and Media Literacy (the ability to access, analyze, evaluate, create media content) is interdisciplinary by nature. Media literacy represents a necessary, inevitable, and realistic response to the complex, ever-changing electronic environment and communication overload that surround all students.

Digital literacy is essential in online learning. With computers and algorithms mediating many learning activities it is important to develop an understanding of the risks and opportunities of meaningful uses of technology.

To develop the ability to critically approach, filter and assess information, notably to identify disinformation and to manage overload of information can be realized in many ways. A fun way is a form of gamification (see examples).

Another exemplary approach is to create a media bias chart from students' national, regional or field-specific area (see Ad Fontes Media example). This can be first an individual task after which students can compare their charts. The charts can be discussed on online forums or in synchronous learning sessions.




ℹ — More information

Ad Fontes. 2022. The Media Bias Chart. Version 9.0.
https://adfontesmedia.com/static-mbc/

American Press Institute
https://www.americanpressinstitute.org/fact-checking-project/factually-newsletter/factually-games-to-teach-media-literacy/

Foundations of web literacyhttps:
foundation.mozilla.org/en/initiatives/web-literacy/

iCivics Foundation:
https://www.icivics.org/games

4 Games to Boost Media Literacy Skills (2019)
https://shaelynnfarnsworth.com/2019/10/23/4-games-to-boost-media-literacy-skills/

Troll Factory. Yle News.
https://trollfactory.yle.fi/

# Collaborative search of information

October 29, 2022
Categories: Searching, selecting strategies for learners
Tags: Beginner

Collaborative information seeking is a process, where students are collaboratively seeking, searching and retrieving information. The process is interactive and mutually beneficial, and the information is explicitly defined among participants.

There are several reference management tools such as Zotero, EndNote, Mendeley and RefWorks that can be used collaboratively for collecting, organizing, sharing and referring sources of information.

— Tools

- Managing references with RefWorks: https://knowledge.exlibrisgroup.com/RefWorks/Product_Documentation/RefWorks_User_Guide/0400_Managing_References#Working_with_Shared_Folders_of_References
- Mendeley reference manager: https://www.mendeley.com/reference-management/reference-manager
- Zotero reference manager: https://www.zotero.org/
- EndNote reference manager: https://endnote.com/

# Information search skills

October 29, 2022
Categories: Searching, selecting strategies for learners
Tags: Beginner

Information seeking is an important academic skill. It covers topics such as the learning task, / problema, plan and implementation of the search, evaluating the search results, basic techniques and tools of information seeking, how to form search sentences, how to find sources of information, assessing the search results and assessing critically the sources found.

Moreover, as to sources of information, databases are often divided into full-text, fact and reference databases, which may be used with different purposes.

In many institutions, librarians and information specialists provide search guidance for student groups and individuals.

- More information
  - Information search guidance Laurea UAS: https://www.laurea.fi/en/library/information-search-guidance-services/
  - Laurea LibGuides: https://libguides.laurea.fi/en
  - Student's digital skills: information searching: Helsinki University https://blogs.helsinki.fi/students-digital-skills/3-information-seeking/
  - QuillBot, Guide to writing https://courses.lumenlearning.com/styleguide/chapter/advanced-search-strategies/

# Recognition of MOOCs

October 28, 2022
Categories: Individual learning paths
Tags: Innovator

Any competence that corresponds to the learning outcomes of the student's degree can be included in it through recognition and accreditation of prior learning.

There is a large variety of MOOCs offering overlapping or partially replacing knowledge with many study units.

The starting point is competence-based thinking: what matters is the student's competence itself, not how and where it has been acquired it. The procedures for the recognition and accreditation of prior learning are part of institutional and national policies.

ℹ — More information
An example for recognition of prior studies and demonstration of competence at Laurea UAS: Optional ways of acquiring competence
https://www.laurea.fi/en/international/studying/how-to-study/

# Alternative course implementations

October 28, 2022
Categories: Individual learning paths
Tags: Innovator

A study unit/course can be offered as alternative implementations fully online or as blended learning. This allows students to choose their preferred style.

The alternatives can be overlapping (during same semester) or sequential (every other semester as blended learning or as fully online).

This is mostly an institutional decision and relies on the inst. strategy.

# Variety of learning paths

October 28, 2022
Categories: Individual learning paths
Tags: Innovator

Create various types of courses or modules where students can alterate and choose between : MOOCs, semi-automatic , or interactive online courses, and engage in asynchronic or synchronous learning.

ASYNCHRONOUS: Learning can occur in different times and spaces particular to each learner. Educators set up a learning path, which students engage with at their own pace.

SYNCHRONOUS: Learner(s) and educator(s) are in the same place, at the same time, in order for learning to take place. This includes in-person classes, live online meetings when the whole class or smaller groups get together.

* MOOC = a course of study made available over the internet without charge to a large number of people. Anyone who decides to take a MOOC simply logs on to the website and signs up.

* Semi-automatic course or module = student-paced learning with some interactive elements or personal feedback on assignments. Synchronous learning usually taking place only in predefined needs for live discussion or interaction, or as a strategy to build community among learners.

* Interactive study implementation = a digital alternative for traditional in-class teaching. Student presence and interaction needed synchronically.

ℹ — More information
Zitter, L. 2021 The changing face of instruction: ynchronous vs Asynchronous e-learning.

Examples of MOOCs: Coursera, edX or Udacity

The institution can recognize MOOC modules as part of the degree curriculum.

# Assessing student’s prior knowledge at the start

October 28, 2022
Categories: Individual learning paths
Tags: Innovator

Differentiated learning path starts with assessing student’s prior knowledge and skills in the beginning of the course and by setting individual learning goals. This demonstration of competence can be done with multiple choice online test or other suitable methods. Based on the results of the test the content of the course can be differentiated to meet the learning goals of the student.

ℹ — More information
NSW Department of Education, Autralia:
Differentiating learning (nsw.gov.au)

# Self-paced learning

October 28, 2022
Categories: Individual learning paths
Tags: Expert

Educators can enable self-paced learning within study units where certain modules or course sections can be done according to the student's own schedule.

Self-paced learning means that the student can learn in her/his own time and schedule. The feedback and evaluation can be provided at given intervals, for example once or twice during the study period or semester.

The progression on the study unit can contain theory material and testing based on multiple choices or other H5P solutions (see area 5.3)

Alternatively, educational institutions can offer fully or semi-automated / MOOC study units with ongoing enrollment to cater for self-paced studies. (See Alternative course implementations)

ℹ — More information
Example, Helsinki University MOOC:
https://www.helsinki.fi/en/admissions-and-education/open-university/open-online-courses-or-moocs

# Alternative assignment formats

October 28, 2022
Categories: Individual learning paths
Tags: Integrator

An educator should consider in advance for allowing a few alternative assignment formats. Recognizing various learning challenges and addressing learners diverse learning needs enables students to progress flexibly (e.g. students with dyslexia, diverse neuro-psychiatric disorders).

Encouraging students to discuss them proactively with the educators makes it possible to agree upon the best option for each student to show their learning outcomes or expertise.

ℹ — More information
Written assignments, videos, podcasts, oral exams can be options for the same content.

# Inclusive technology

October 28, 2022
Categories: Special support
Tags: Beginner

Inclusive technology means programs and applications that are designed to support students in their studies. Programs can offer tools e.g. for time management, writing, reading, stress management and procrastination.

Educators can make students aware of such programs and applications available.

- More information
  - Imperial college London is offering several programs for their students: https://www.imperial.ac.uk/admin-services/ict/training-and-resources/inclusive-technology/
  - Live seminars available on how to use the technology: https://www.imperial.ac.uk/admin-services/ict/training-and-resources/inclusive-technology/live-webinars/

# Assistive technology

October 28, 2022
Categories: Special support
Tags: Expert

"Assistive technology (AT) is any item, piece of equipment, software program, or product system that is used to increase, maintain, or improve the functional capabilities of persons with disabilities. Assistive technology helps people who have difficulty in speaking, typing, writing, remembering, pointing, seeing, hearing, learning, walking, and many other things". (ATiA 2022.)

One form of assistive technology is screen reader software program (e.g. screen scanners such as MS Lens), which helps blinds and visually impaired people to read the text displayed on the computer screen with a speech synthesizer or braille display.

Educators should be aware of such assistive technologies by making sure that all content in the learning environment is compatible with assistive technology.

ℹ — More information

**ATiA Assistive Technology Industry Association 2022. What is AT.**
https://www.atia.org/home/at-resources/what-is-at/

# Disability simulators

October 28, 2022
Categories: Special support
Tags: Integrator

Disability simulators can help educators to understand students with special needs e.g. how students with dyslexia experience the web.

— Tools
Funkify.org

# Peer support constellations

October 28, 2022
Categories: Inclusion
Tags: Beginner

Buddy programs/Mentor students/Tutor students can be chosen or organised to support individual students or student groups. Especially in the beginning of studies peer support and mentorship can be crucial.

ℹ — More information

Student union of Laurea UAS recruits tutor students for every starting student group. The previous groups' students can apply and act as mentors for the 'freshmen', also digitally which makes it possible to be a tutor student regardless of the place of residence.

# Guidelines for group work

October 28, 2022
Categories: Inclusion
Tags: Beginner

Guidelines for group or team work can help students especially when working online.

Guidelines can be created by institutional level or students can create e.g. a team agreement in the beginning of a study unit.

If the institution has made such guidelines educator should make students aware of those in the beginning of the online study unit.

ℹ — More information
Example of online group-work guidelines:
https://www.plymouth.ac.uk/uploads/production/document/path/2/2436/Online_Group_Work_Guidelines.p

# Policies, codes of conduct

October 28, 2022
Categories: Inclusion
Tags: Integrator

A welcoming learning atmosphere requires transparency and clarity about the course policies. How much flexibility is possible, depends on the mode of the online implementation (e.g. small group virtual course vs. a mooc).

If a reasonable group size, students can be divided in break out rooms to discuss and share their expectations regarding to inclusive practices and even create a study unit policy for inclusion.

A student-driven inclusion policy enables to take into account more effectively diversities represented on a given study unit. A policy drafted by students can be created on any collaborative platform such as Google Docs or Miro whiteboard.

🧰 — Tools

- Google Docs: https://docs.google.com
- Miro: https://miro.com

# Checklists for accessibility

October 28, 2022
Categories: Inclusion
Tags: Integrator

A checklist for accessible curriculum design or study unit planning can be helpful for including students with different learning styles or conditions.

The exemplary checklists (e.g. University of Leicester) provides a good basis for creating or updating similar listings.

- More information
  - Accessibility checklist for Teaching, Collaboration etc. University of Edinburgh: https://www.ed.ac.uk/information-services/learning-technology/accessibility/checklist
  - Inclusive and Accessible Learning and Teaching Checklist. Glasgow Caledonian University: https://www.gcu.ac.uk/media/gcalwebv2/gculead/InclusiveandAccessibleLearningandTeachingCheckl
  - Checklist for accessible content. NSW Government. https://education.nsw.gov.au/about-us/gel/accessibility-basics/checklist-for-accessible-content

# Social space for students

October 28, 2022
Categories: Inclusion
Tags: Beginner

Students should have a space for interaction and communication among peers. Educator should provide students a space for communication (e.g. a forum, a get together channel, teams channel) or encourage students to form their own communities or peer groups (e.g. whatsapp group).

**— Tools**

Channel; Group (in Teams, Canvas, Moodle); a Whatsapp group etc.

# Awareness training for educators

October 28, 2022
Categories: Inclusion
Tags: Beginner

Educators are sometimes not aware of their exclusive practices. Enhance IDM! is an example of a knowledge base for promoting more inclusive practices in Higher Education.

The Erasmus+ co-funded project provides an E-learning entity in Moodle for educators. An additional IDM toolbox provides tailor-made support material structured in accordance with higher education decision-making areas and student life-cycles.

— Tools

- Creating an Inclusive Classroom with Microsoft Tools: https://www.youtube.com/watch?v=K4cvuS6GKM8
- Enhance IDM project introduction: https://enhanceidm.eu/wordpress/
- IDM E-learning entity in Moodle: https://enhanceidm.eu/wordpress/about-the-project/project-introduction/
- IDM Toolbox: https://idmtoolbox.eu/

# Welcoming student diversity

October 27, 2022
Categories: Inclusion
Tags: Beginner

At the beginning or during the study unit, it is important to create a welcoming atmosphere for all kinds of students. This can be done by acknowledging that the educator is aware of the diverse students and is open to hear about their needs and expectations.

How much flexibility is possible, depends on the mode of the online implementation (small group virtual course vs. a mooc).

In order to create a truly inclusive atmosphere, students need to be empowered and enabled to get their voices heard.

For example, students can be divided into break out rooms to discuss and share their expectations in regard to inclusive practices. More examples of activating starter activities are listed under 5.3.

ℹ — More information
Welcoming messages; agreeing on inclusive practices in student driven ways (Break out rooms; discussion forums).

# Robot readers

October 26, 2022
Categories: Flexibility in activities
Tags: Integrator

Robot readers or text-to-speech programs convert written text into spoken words. This enables students with reading or concentration difficulties to deepen into the content in different ways. These programs often enable reading and listening at the same time, changing the robot reading pace or even translate content in different languages.

— Tools

- **Natural reader**
  https://www.naturalreaders.com/online/
- **TTS roBOT**
  http://texttospeechrobot.com/
- **MicroSoft Lens**

# Modular learning units

October 26, 2022
Categories: Flexibility in activities
Tags: Integrator

Clearly structured and modular learning units make learning easier for students. Module learning is a style of learning in which a particular course is broken down into segments or units. This approach allows students to get to grips with the subject by breaking it down into smaller segments, possibly to “bite-size” micro units.

ℹ — More information

Modular Learning: 8 Tips for Effective Online Teaching. Research-based Articles. Accessed 15.5.2022. https://simplyeducate.me/2021/06/22/modular-learning/

Pappas, C. 2015. 7 Tips To Create The Perfect Learning Unit For An eLearning Course. Accessed 15.5.2022. https://elearningindustry.com/7-tips-to-create-the-perfect-learning-unit-for-an-elearning-course

Teaching the modular way? A few notes on modularity in language teaching. Learning Paths. Accessed 15.5.2022. http://www.learningpaths.org/papers/modules.htm

# Optimize individual choice and autonomy

October 26, 2022
Categories: Flexibility in activities
Tags: Expert

Offering learners choices can develop self-determination, pride in accomplishment, and increase the degree to which they feel connected to their learning.
The right kind of choice can accelerate fast learners' studies or support slower learners.

Choices can be offered routinely or based on the student's competence or knowledge tested by e.g. multiple choice tests.

The right kind of choice and level of independence must be optimized to ensure engagement.

Provide learners with as much discretion and autonomy as possible by providing choices in such things as:
– The level of perceived challenge
– The type of rewards or recognition available
– The context or content used for practicing and assessing skills
– The tools used for information gathering or production
– The color, design, or graphics of layouts, etc.
– The sequence or timing for completion of subcomponents of tasks
– Allow learners to participate in the design of online learning activities and academic tasks
– Involve learners, where and whenever possible, in setting their own personal academic and behavioral goals.

ℹ — More information

CAST (2018). Universal Design for Learning Guidelines version 2.2. Retrieved from http://udlguidelines.cast.org

# Hybrid implementations

October 26, 2022
Categories: Flexibility in activities
Tags: Innovator

Hybrid implementations are a flexible way to cater for diverse students needs. A hybrid mode enables e.g. remote participation for students with long commuting or living abroad.

Hybridity can be designed in many ways. Theory parts can be studied online independently, practical parts such as workshops can be organized on campus or online. Lectures can also be given simultaneously online and in classroom.

ℹ — More information

The University of Einburgh, What is hybrid teaching What is hybrid teaching? | The University of Edinburgh

DuPage College: An Introduction to Hybrid Teaching – Learning Technologies. Workbook. hybridteachingworkbook.pdf (codlearningtech.org)

# Balancing synchronic and asynchronic learning

October 26, 2022
Categories: Flexibility in activities
Tags: Beginner

Educators should consider how to use digital technologies effectively without losing the human touch. It is often important for students to interact with an educator online during studies. This can be designed e.g. by joining and commenting on students' online discussions, providing synchronic online lectures with an opportunity to discuss issues with the educator.

# Idea sharing

October 26, 2022
Categories: Engaging learners in asynchronous sessions
Tags: Beginner

Idea sharing online can be implemented in many ways. A simple approach is utilizing break out rooms or chats. More advanced approaches can benefit of collaborative platforms and digital white boards suchFllinga, Miro, Padlet.

— Tools
Padlet, Miro, Mural,

Mindmap programs (mindmaster, bubble.us, ...)

# Simulation systems

October 26, 2022
Categories: Engaging learners in asynchronous sessions
Tags: Expert

Educators can use available training versions of electronic record systems or programs when teaching various contents.

Examples of such simulation systems are enterprise resources planning (ERP systems), Patient management systems, security and crisis simulations.

# Simulation objects

October 26, 2022
Categories: Engaging learners in asynchronous sessions
Tags: Expert

Educators can use various teaching aids in practical workshops. In health care simulations for instance there are patient simulators, interactive manikins, which give nursing or medical students immediate feedback of interventions performed.

An example of a simulations object is SimMan, a fully articulating patient simulator designed for immersive training.

# Case simulations

October 26, 2022
Categories: Engaging learners in asynchronous sessions
Tags: Expert

Case study simulations can be realized electronically in Zoom or similar systems which enable (also multidisciplinary) students working together in groups solving case issues together. Successful learning experience requires good planning and informing the participants in advance of the cases, small group members, schedule, roles, etc.

# Collaborative activities

October 26, 2022

Categories: Engaging learners in asynchronous sessions

Collaborative learning is a set of different ways of learning. A student group aims to achieve the common goal by working and learning together.
Crucial for collaborative learning is that the group members are responsible for the learning of others in the group as well as for their own.

Interaction and dialogical skills develop alongside with the task at hand. Collaborative learning suits well in an online setting.

ℹ — More information

**The International Handbook of Collaborative Learning**

Cindy E. Hmelo-Silver, Clark A. Chinn, Carol Chan, Angela M. O'Donnell

Routledge, 5 Mar 2013 – Education – 528 pages

# Co-creation

October 26, 2022
Categories: Engaging learners in asynchronous sessions
Tags: Expert

Co-creative learning is a strategy that engages students in taking responsibility for their own and fellow students' learning journey.

Co-creating with students gives them agency over their learning and helps to develop self-direction, confidence, creativity and critical thinking skills. This strategy combines students, teacher and area of expertise to share and create jointly knowledge by utilizing collaboration platforms supporting synchronous working.

— Tools

**Examples of platforms supporting co-creation:**

- www.miro.com
- www.airtable.com
- www.padlet.com
- www.trello.com
- www.asana.com

— More information

Bournemouth University. Building learning together. Accessed 16.5. 2022. https://www.bournemouth.ac.uk/about/our-people/centre-fusion-learning-innovation-excellence/tel-toolkit/pedagogical-approaches-tel/collaboration-co-creation

Dollinger, M., Lodge, J. & Coates, H. 2018. Co-creation in higher education: towards a conceptual model, Journal of Marketing for Higher Education, 28:2, 210-231, DOI: 10.1080/08841241.2018.1466756

Katz, S. 2021. Co-creating with students: practical considerations and approaches. Accessed 16.5. 2022. https://www.timeshighereducation.com/campus/cocreating-students-practical-considerations-and-approaches

# Collaborative editing

October 26, 2022
Categories: Engaging learners in asynchronous sessions
Tags: Integrator

Learners can work with their assignment on collaborative files. Educator can see who has contributed to the document, go and see the version history and follow online, who is in the document and how the group is working.

💼 — Tools
Possible platforms for working with files are e.g. Office 365, iCloud, Google docs & Teams.

Collaboration platforms such as Slack, Asana or Trello offer a more versatile collaboration on shared files.

# Learning by developing (LbD)

October 26, 2022
Categories: Learner-driven approaches
Tags: Innovator

Learning by Developing (LbD) is a pedagogical model based on genuine work-life research and development project in collaboration with students , teachers, and working life representatives and other stakeholders, depending on the nature of a research and development project that forms a primary learning environment. Students will learn to apply knowledge and competence to real-life context. In addition, they will learn various transversal skills.

"In a project a teacher has the role of facilitator, partner, developer and researcher. The teacher provides space for students and facilitates their competence- construction processes in relation to practical experiments. As an evaluator, the teacher is involved in assessing the achievements of student's competences as well as the outcomes and the process of the research and development project in cooperation with all the partners involved. Evaluation is seen as a reflective, development-oriented co-operational process between the students, teachers and working-life representatives. The partners' feedback, peer feedback, the students' own self-evaluation as well as teachers' quantitative and qualitative assessments are all important elements in holistic evaluation. Students' competences are identified and credited by comparing them to the learning objectives described in competence-based curricula." (Raij, 2012)

Research and development project can run fully online. Students, teachers, working life representatives and other possible stakeholders can meet online. Teams, Slack etc. can be used for communication, sharing files and creating documents together. Online whiteboards such as MIRO or MURAL can be used for collaboration e.g. in ideation workshops.

ℹ — More information
Raij, K. 2007. Learning by Developing (LbD): Microsoft Word – 853609_sisus.doc (theseus.fi)

Raij, K. 2012. Summarising the basis of LbD for further development – review: Laurea julkaisut 101.pdf (theseus.fi)

Examples of solutions created by Laurea students in LbD based learning settings for varios regional partners:

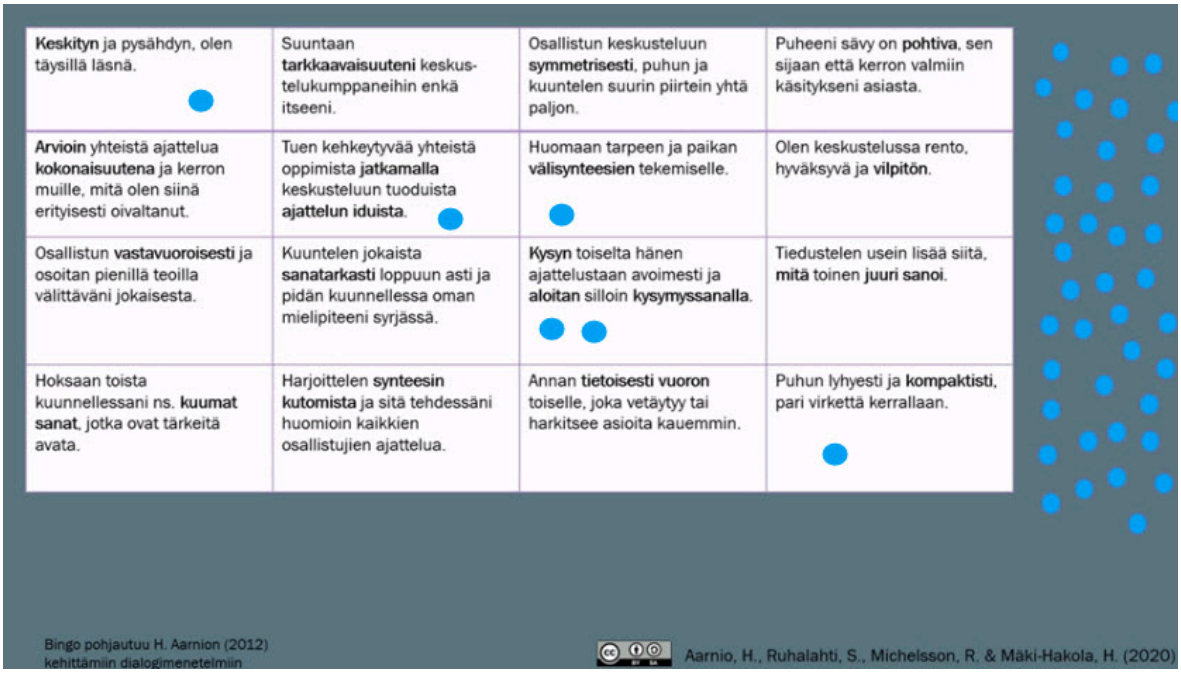
- Student team produced an instructional video for National Courts Administration for witnesses in court – Laurea-ammattikorkeakoulu
- Webpages for a regional partner: https://www.sattvaprojects.com/
- Students develop social media marketing in a joint project with IKEA Finland – Laurea-ammattikorkeakoulu

# Dialogue bingo

October 26, 2022
Categories: Engaging learners in asynchronous sessions
Tags: Expert

Dialogue bingos can be used for ice breakers, as evaluative tasks or as deepening and fun activities during many online sessions.
The bingo can be kept open during the whole session and results studied together for wrapping up topic discussion, or it can be a short, limited activity.

There are many ways to create dialog bingos. E.g. it can be created as an interactive Powerpoint slide where students move dots to mark their choices, using Miro dot voting functionality or by utilizing ready bingo templates online.




🧰 — Tools
Bingo card generator: https://bingobaker.com/

Animated Bingo PowerPoint Template: https://www.free-power-point-templates.com/articles/animated-bingo-powerpoint-template/

# Automatic messages

October 26, 2022
Categories: Engaging learners in asynchronous sessions
Tags: Integrator

Automation on learning platforms can be utilized to engage students in large classes. Timed messages such as reminders, motivational tips, or exam-preparation materials can be sent simultaneously to large number of students.

# Brainstorming and mindmapping

October 26, 2022
Categories: Fostering creativity, criticality
Tags: Beginner

Brainstorming is a method of generating ideas and sharing knowledge to solve a particular problem. The method is very fruitful when diverse learners get together and bring their various ways of thinking into the thinking and decision making process. Digital tools for brainstorming are readily available in the internet.

“Brainstorming may seem to lack constraints, but everyone must observe eight house rules and have someone acting as facilitator.

Set a time limit – Depending on the problem’s complexity, 15–60 minutes is normal.

Begin with a target problem/brief – Members should approach this sharply defined question, plan or goal and stay on topic.

Refrain from judgment/criticism – No-one should be negative (including via body language) about any idea.

Encourage weird and wacky ideas – Further to the ban on killer phrases like “too expensive”, keep the floodgates open so everyone feels free to blurt out ideas (provided they’re on topic).

Aim for quantity – Remember, “quantity breeds quality”. The sifting-and-sorting process comes later.

Build on others’ ideas – It’s a process of association where members expand on others’ notions and reach new insights, allowing these ideas to trigger their own. Say “and”—rather than discourage with “but”—to get ideas closer to the problem.

Stay visual –Mindmaps, diagrams and post-Its help bring ideas to life and help others see things in different ways.

Allow one conversation at a time – To arrive at concrete results, it’s essential to keep on track this way and show respect for everyone’s ideas.” (Interaction design foundation)

🧰 — Tools
Several mindmapping tools:

https://www.mindmup.com/

https://www.mindomo.com/fi/

https://www.mindlyapp.com/

https://www.popplet.com/

https://bubbl.us/

Capterra is a free service that helps organizations find the best software for their needs.
Brainstorming Tools Software – Review Leading Systems (capterra.com)

# Group-to-group assessment

October 25, 2022
Categories: Assessment agents
Tags: Expert

Group-to-group assessment is very similar to peer-to-peer assessment and the assessment instruments to use can be similar. However, group-to-group assessment enhances richer discussions, encouraging groups to clarify and elaborate on perceptions as well as to defend points of view, to judge the other group's accomplishment levels. Thus, this is a powerful tool to support the development and improvement of learners' competences (subject competences; methodological competences; social competences; self-competences).

A special focus of group-to-group assessment may be the learners' social transversal competences, such as, for example, teamwork, communication, and project management.

ℹ — More information

Mellor, T. (2012) Group work assessment: some key considerations in developing good practice. Planet, 25(1), pp. 16-20, https://doi.org/10.11120/plan.2012.00250016

Forsell, J., Forslund Frykedal, K., & Hammar Chiriac, E. (2020) Group Work Assessment: Assessing Social Skills at Group Level. *Small Group Research*, Vol. 51(1), pp. 87–124. https://doi.org/10.1177/1046496419878269

# Peer assessment

October 25, 2022
Categories: Assessment agents
Tags: Expert

Self-assessment and the assessment of others are key for learners to generate and receive feedback and develop evaluation competences.  Peer assessment is an important means of developing and improving learners' competences (subject competences; methodological competences; social competences; self-competences), including that it may allow for spotting sensitive aspects of the learner's learning process, thus possibly supporting the teacher to provide (timely) feedback.

Digital peer assessment tools can vary according to the learning activities defined, e.g. rubrics, scripts, portfolios, journals, etc.

— Tools

- Workshop: Peer review – Moodle

— More information

An introduction to peer and self-assessment

# Self-assessment

October 25, 2022
Categories: Assessment agents
Tags: Expert

The learners' self-assessment can provide valuable insight into their true understanding of content, as well as to their performance in a certain activity. The learners' self-assessment can help the educator to identify gaps that still need to be improved or worked further. By encouraging learners to analyse their own learning process, teachers help them to become increasingly aware of their learning progress; thus, promoting the development of self-evaluation competences (which is key for lifelong learning).

The learners can do their self-assessment using online checklists, rubrics and/or by answering open questions to evaluate/rate their self-perceived performance.

ℹ — More information

- Importance of Self-Assessment

# Defining learning indicators

October 25, 2022
Categories: Assessment criteria
Tags: Integrator

Learning indicators must be designed based on the intended learning outcomes and focus on the learners' accomplishments; in addition, there are learning indicators which focus on the learning process and its preconditions. Each learning indicator should be grounded in specific, observable, and measurable progress made towards achieving an intended learning outcome or realising an intended learning process.

In general, learning indicators should be considered which relate to learning outcomes with respect to intended action competences for the present and the future, the core education ("Bildung") goals. These competences can be differentiated into personality competences consisting of social and self-competences as well as subject competences and methodological competences; presently, all these competencies are affected by digital transformation. Among these learning indicators are those, for example, that have a direct impact on the learners' learning (e.g., integrative and applied learning; problem-solving; information and digital literacy; self-directed learning; reflection/ critical thinking) or their development as citizens (e.g., civic engagement; intercultural knowledge and competence; conflict coping; ethical behaviour).

ℹ — More information

- Competencies: descriptions, indicators and examples
- Criteria and indicators (Politecnico di Milano)
- American Association of Colleges and Universities] (2022): 16 value rubrics. Washington, DC: AAC & U.
- Leiber, T. (2022) The (Future) University as a Strategic Open Republic: Required Quality Literacies in Strategy, Management, Practice and Culture. In: S. Harris-Huemmert, P. Pohlenz & L. Mitterauer (Eds.) (2022) *Hochschulen neu denken! Herausforderungen, Risiken und Chancen*. Münster: Waxmann, pp. 15-47.

# Defining learning criteria

October 25, 2022
Categories: Assessment criteria
Tags: Expert

Assessment criteria provide information about diverse aspects of an assessment task and are used to measure the learner achievement as to the intended learning outcomes; hence, making it clear to learners the factors that will be considered when assessing their learning. After defining the criteria, it is important to clarify the related performance indicators that are going to be considered, i.e., what will be the basis of the judgements of the learners' achievements. Additionally, it may be helpful that educators define a preliminary version of the criteria and then negotiate the performance indicators with the learners within the framework of relevant quality considerations; this may lead to greater engagement of learners in the assessment process.

Teachers can define beforehand the points that correspond to each indicator. Alternatively, the educator can assign a certain number of points for each criterion and score the learner's performance according to the collected evidence (participation in discussion forums, participation in collaborative work, etc.). Assessment criteria should include:

- evidence that is observable in the learner's work;
- characteristics of the learning product;
- essential elements to demonstrate the learner has achieved the learning outcome.

Criteria are essential to design rubrics, which can be integrated into LMS-based activities.

ℹ — More information
- Precision in assessment criteria
- Criteria and indicators (Politecnico di Milano)

# Rubrics

October 25, 2022
Categories: Assessment elements
Tags: Innovator

Rubrics are based on the definition of learning criteria and indicators and can be used by learners to regulate their learning, as well as by teachers to adjust their teaching strategies to the learners' needs, thus making teaching more personalised.

Assessment rubrics can be used for formative, diagnostic and summative purposes. They indicate the learning achievement level according to pre-defined learning outcomes and, therefore, should include the learning product(s) and process(es). They usually imply a compromise between the learner and content to be learned and can also be a means for the teacher to establish learning contracts with the learners.

— Tools

- Rubrics: Useful Assessment Tools
- 7 Steps for Creating Rubrics
- Rubric Making tools

# Online message boards and forums

October 25, 2022
Categories: Assessment elements
Tags: Integrator

Online message boards and forums are online discussion sites where learners can hold discussions in the form of short posts. They allow for learners to collaborate and discuss various themes under varied categories. Besides, learners can also give positive and negative vote on various posts. In some platforms, external selected stakeholders, can be given access to the outputs and permission to comment on them.

Since most LMSs (e.g., Edmodo, Moodle, Canvas and Google Classroom) offer access to built-in discussion forums, teachers can easily use them for assessment purposes. Educators should clearly design the forum's/board's theme (and subthemes) and organise the forum's/board's structure. It may also be advantageous to boost discussion with questions or inspiring/controversial statements.

Tools

- Padlet
- Miro

# Wikis

October 25, 2022
Categories: Assessment elements
Tags: Expert

A wiki is a collaborative digital tool that allows for learners to share, comment and develop content through an open-editing system on a web page. It can be an authentic assessment tool used for collaborative learning. Teachers can set a loosely-defined and open-ended learning activity, and encourage learners to develop a strategy or solution for producing a web page focused on a specific topic.

Educators should set clear rules and expectations, clearly defining the learners' roles and activities, and monitor their progress and provide timely feedback.

— Tools

- MediaWiki
- TikiWiki

# Blogs

October 25, 2022
Categories: Assessment elements
Tags: Expert

A blog can be understood as an online journal, where learners can quickly and easily post their thoughts and interact with other participants. As the posts can be multimodal, integrating written text, image, video and/or audio, it offers learners the opportunity to develop their creativity and digital competence in their academic work.

Blogs can be used for summative and formative assessment to record and/or reflect on individual or group progress in a project. The learners' entries can be read and commented on by external stakeholders (practitioners or experts in the field). Besides providing a record of the learners' development over time, it can also help them to develop their communication and language competences and to create and manage their online identity. In the design of an activity that involves blogging, teachers should provide clear guidance as to what is expected from learners along the process

— Tools

- Blogger

# e-Portfolio

October 25, 2022
Categories: Assessment elements
Tags: Expert

An assessment e-portfolio is a compilation of the learner's work to showcase the learning progression and achievement, i.e., the extent to which the learning outcomes have been accomplished. Thus, e-portfolios evidence learning over time in electronic format, which can be advantageous not only to promote the learner's creativity and digital competences.

Educators can use e-portfolio tools integrated in some LMSs (e.g. CANVAS) and also online rubrics to check if learners have reached the intended milestones. In addition, educators can also have a clearer glimpse over how learning is developed based on the learner's e-portfolios.

— Tools

- UW Stout, e-portfolio assessment rubric

# Online quizzes

October 25, 2022
Categories: Assessment elements
Tags: Integrator

Online quizzes can go beyond the traditional multiple-answer text-based questions. Tools such as, for example, Google Forms or Moodle Tests allow you to include graphics or videos for visual appeal, hence raise the learners' engagement with content and other learning activities. These quizzes (synchronous or asynchronous) can be used for tracking, reporting, and assessing learning progress and outcomes; thus, they can be designed for diagnostic, formative or summative assessment. They can also be dynamically co-created by the teacher and the learners; thus, holding learners responsible for their learning (self-directed learning).

Educators can design a quiz routine, for example, to identify gaps in the learners' learning and provide timely feedback. They can also tie their quizzes to (multidisciplinary) real world scenarios and involve learners in solving authentic cases – thus, promoting learning transfer.

Tools

- Quiz activity

# Technology-enhanced oral presentations

October 25, 2022
Categories: Assessment elements
Tags: Beginner

Effective oral presentation skills are essential in the educational, social, and professional spheres. Depending on the subject area, oral presentations may include reacting to oral prompts, engaging in speed talks, producing pitches, presenting/discussing themes, simulating personal interaction (role-play), etc. Teachers can also video-record oral presentations to provide individual feedback to learners in terms of voice placement/tone, body language, language, etc.

Teachers can design synchronous oral presentations using video-conferencing tools (e.g., Zoom, MSTeams, etc.), ask learners to video-record their presentations or even mix both modalities. In the latter case, the teacher may allow learners to submit a preliminary version that can be commented on before submitting the final version. It is relevant to stress that this feedback can even be provided by the teacher, by peers or even external stakeholders, at various times.

# Written assignments

October 25, 2022
Categories: Assessment elements
Tags: Beginner

Written assignments are usually very useful to develop in-depth reasoning and argumentative skills. Nonetheless, teachers should provide learners with guidance as to how to organize ideas, as well as to develop, elaborate and argue points of view.

Teachers should ensure that the written assignment guidelines are sufficiently clear and detailed, i.e. include descriptions of the learning goals, the task structure, participants, etc. This type of assessment may include: research briefs, written reports, essays, project reports, etc.

- More information
  - Moodle – How to create text assignments for your learners to complete.
  - Assignment in Moodle 3.5.

# eAssessment of/for/as learning

October 25, 2022
Categories: Assessment principles
Tags: Integrator

'Assessment of learning' is commonly used for summative assessment purposes and refers to final outcomes of the learners' learning, e.g. final test results. The concepts of 'assessment for learning' and 'assessment as learning' can relate to formative assessment but also to summative assessment, given that it is grounded in 'feedback' to promote learning. Nonetheless, as to the latter (assessment as learning) the focus is on empowering learner agency by promoting the learners' self-monitoring, self-regulation and accountability towards their own learning.

In digitally-enhanced learning activities teachers should be aware of the positive impact that programmed, actionable feedback may have on the learners' learning. Therefore, learners should be clearly informed from the beginning when they are expected to give/ receive feedback concerning their work and fully understand how to use it. Depending on the activity, there are several online tools that teachers and learners can use for these purposes, for example "Feedback activity" in Moodle.

— More information

- Assessment of/for/as learning
- Feedback activity

# Assessment reliability

October 25, 2022
Categories: Assessment principles
Tags: Innovator

The design of an assessment strategy is usually grounded in the assumption that it will enable the production of comparable outcomes. Thus, assessment reliability refers to the extent to which assessment allows for measuring consistently the performance of different learners' over time.

Specially in time-limited technology-enhanced activities, teachers should acknowledge the need for accuracy and consistency of the interpretations that can derive from the wording and format of the assessment tasks. Peer feedback can help teachers to better perceive learners' interpretation of the tasks, while also helping them to develop peer-assessment competences. This can be carried out as intermediate assessment.

# Assessment equity

October 25, 2022
Categories: Assessment principles
Tags: Innovator

Assessment equity implies that the assessment strategy ensures that the learners' profiles are considered in all aspects of the assessment design, and have played an important role in informing decision-making and action to promote inclusion of all.

Teachers should check for biases and reflect throughout the assessment process to evaluate assumptions and positions of privilege. To overcome some constraints, teachers can resort to a diversified set of data sources to assess learning. Most times, it is advantageous to include the learners' perspectives and act based on the different perspectives.

ℹ — More information
Equity, agency and transparency: making assessment work better for students and academics

# Assessment transparency

October 25, 2022
Categories: Assessment principles
Tags: Integrator

Assessment transparency refers to sharing of clear assessment criteria and indicators with learners, ensuring that they fully understand what is expected from them in terms of learning outcomes. This may promote the learners' accountability for their own learning process and reinforce their engagement.

It is important to note that the criteria and indicators should be timely communicated and can be negotiated with learners. Moreover, they can also be used to carry out peer assessment in specific development phases of an activity or project.

Techniques that educators can use to make assessments more transparent are:

- Clarify and articulate, from the beginning, the knowledge and competences that learners are supposed to develop;
- Double check your alignment between the learning outcomes and the assessment activities;
- Negotiate/ co-construct and clarify assessment criteria and indicators.

Most Learning Management Systems (LMSs) allow educators to add learning outcomes, as well as criteria and indicators, to activities throughout a course.

ℹ — More information
Equity, agency and transparency: making assessment work better for students and academics

# Learner agency

October 25, 2022
Categories: Assessment principles
Tags: Expert, Integrator

Learners tend to rely solely on teachers to answer to their questions and get feedback. It is important to hold learners accountable for their own learning, as well as their peers'. For this, it is relevant to be transparent about what and how they are expected to learn and clarify, from the beginning, how they are to interact with content, the teacher and their peers. In this context, feedback can be assumed as an important means to regulate the learner´s learning agency.

Educators should plan how they are going to monitor the learners' learning and provide them with guidance. In addition, a learning contract can be negotiated with learners involving feedback loops with different agents (teachers, peers, or external stakeholders). Furthermore, accomplishment checklists can be used to ensure consistency and completeness in carrying out learning tasks. This way learners are supported to develop competences for self-directed learning and take on the responsibility for their own learning.

— Tools

- Creating an accomplishment Checklist in Moodle

# Personalising learning

October 25, 2022
Categories: Assessment principles
Tags: Expert

In contrast to the traditional one-size-fits-all approach to education, personalised learning aims at addressing the learners' needs and capitalising each learner's strengths, skills, and interests. In particular when we have a class with learners who learn at a very different pace, it is advantageous to have flexible learning plans. Personalised learning approaches are important to flexibilise learning plans when different learners of learning groups learn at different paces.

Digital technology can be used to leverage and boost the learners learning pace, for instance, by including multimodal (open educational) resources that tackle the learning topics from different perspectives and approach the themes with a more granular conceptual depth. Thus, learners can explore the resources beforehand according to their own learning profile and readiness.

— Tools

- Khan Academy

# Assessing the process

October 25, 2022
Categories: Assessment principles
Tags: Integrator

Assessment is an integral part of every formal educational process, but, typically, tends to focus on learning products, such as final test results. It is also important to rethink the role/function of assessment as an integral part of the learner´s learning process, so that it can go beyond content and integrates the development of different transversal and transferable competences, e.g., teamwork, intercultural communication, digital competence, task and time management, etc.

In this scenario, it is important to diversify the activities defined within a pedagogical strategy as to include the learners' learning process. For instance, using a Learning Management System (LMS), such as, for example, Moodle, teachers can consider the definition of a set of activities resorting to tools as: discussion forums, assignment submission, quizzes, etc. Do not forget to schedule (timely) feedback to support the learners global learning (LifiComp, 2020).

Tools

- Forum in Moodle 3.5
- Assignment in Moodle 3.5
- Quiz in Moodle 3.5

# Sharing videos

October 25, 2022
Categories: Sharing digital resources
Tags: Expert

Given that videos are more and more used to enhance learning engagement and that sometimes these are heavy documents, it is important to be aware of platforms that we can use for sharing video resources.

Teachers should be aware that in these platforms (e.g., YouTube) there are standard licences that allow for embedding and sharing hosted on the platform itself, but there are also Creative Commons CC BY Attribution licence, which allows users to re-purpose and re-use the video. Besides, some video broadcasting services also offer the possibility of building networks of interconnected video hosts.

— Tools

- PeerTube
- YouTube for Education channel

# Sharing digital presentations

October 25, 2022
Categories: Sharing digital resources
Tags: Expert

Digital presentations tend to relay on the integration of visual formats to reach the target audience more effectively. Sometimes it is useful to store your presentations online to create links that are easily shared with learners and to reach a greater audience that's interested in your content; thus, cultivating more professional opportunities.

Besides the possibility of uploading the original documents of presentations to an LMS, teachers can also use Presentation sharing tools. These tools often allow authors to embed YouTube videos as a slide within a presentation or include your live speech to add additional information. Moreover, by using the analytics of the presentation sharing tools, teachers can also keep track of views (and viewers)

— Tools
- Slideshare

# Communal/Peer-to-Peer sharing of digital resources

October 25, 2022
Categories: Sharing digital resources
Tags: Expert

Smart societies rely more and more on community-based and digitally-enabled sharing of information. In Education, the communal (many-to-many/one-to-many) and peer-to-peer (one-to-one) sharing of digital resources is grounded in providing/receiving access to media files such as books, music, movies, games, i.e. information that can be used for learning purposes.

OER sharing seems to have an important role in increasing efficiency for teachers – who can creatively use, customize, and reshare them, and produce derivative resources. In addition, by being openly accessible and not incurring in additional costs, they allow for learners and self-learners to prepare for classes beforehand and navigate them according to their learning needs. Besides teaching/learning-related communities of practice, teachers can also share their OER in other repositories, for instance, Wikimedia Commons, Slideshare and SoundCloud.

— Tools

- Wikimedia Commons
- Slideshare
- SoundCloud
- OER Repositories

# Sensitive digital content

October 25, 2022
Categories: Managing digital resources
Tags: Innovator

It is important to underline that well-protected sensitive data is very important for personal safety reasons and an organisation’s reputation; therefore, particular attention should be given to personal details when creating documents.

It is important for teachers to raise the learners’ awareness as to ways of protecting digital content, e.g., encryption (data encoding for its secure exchange, which may include tokenisation), data rights management (to secure content from unauthorized viewing) and geofencing (for the definition of a region where authors want to provide access to their data).

# Ontologies

October 25, 2022
Categories: Managing digital resources
Tags: Innovator

Ontologies integrate a set of domain-based concepts and categories to describe an object's properties. They are used to capture the relevant objects and properties (relationships and attributes) that can be referred to by people or systems during the management and execution of construction or renovation projects. This includes physical and spatial entities, temporal regions, information contents, agents, activities, and groupings of objects.

There are several methods to describe formal specifications of knowledge representation (taxonomies, thesauri, topic maps, etc.); nevertheless, ontologies allow for expressing relationships and enable users to link multiple concepts. Teachers can work with ontology-driven approaches to search for or filter/present/discuss different overviews of multi-layered structures, e.g., materials that address multicultural and multilinguistic issues.

- More information
  - Digital Construction Ontologies
  - (PDF) An Ontology-Based Approach for Sharing Digital Resources in Teacher Education (researchgate.net)
  - Based_Approach_for_Sharing_Digital_Resources_in_Teacher_Education

# Licensing resources with CC

October 25, 2022
Categories: Open Content
Tags: Integrator

When teachers want their materials in open access, it is important to start with the selection of the preferred Creative Commons (CC) license. This implies that anyone that accesses the document, for instance via a Google search, will clearly see the selected license.

In order to do it manually, teachers have to start by selecting and downloading the intended CC license and then insert a copy of the respective icon in the work (for instance, in the footer). Usaully, write next to the icon, authors add some extra information, e.g.: “This work is licensed under a Creative Commons Attribution 4.0 International License”, and insert a hyperlink to the appropriate license. Alternatively, teachers can also use the CC add-in for Microsoft Office (Word / Excel / PowerPoint).

— Tools

- CC icon download
- OER Commons > How to Use Open Author on OER Commons

# Creative Commons licenses (CC)

October 25, 2022
Categories: Open Content
Tags: Beginner

The Creative Commons organisation provides Creative Commons (CC) licences, which were created to provide a standardized means to content creators to define copyright permissions, i.e., to clarify to which extent others can copy, distribute, and use those works. These licences were designed to be easily apprehended and used internationally through simple wording and self-explanatory, easy-to-understand symbols. The anatomy of CC licenses can include one – e.g. “CC BY” – Attribution, “CC SA” – Share Alike, “CC NC” – Non Comercial, “CC ND” – No Derivative Works, etc. – standing alone or combined.

Educators can find OERs in OER commons but also, in search services provided by other organisations. You can also use Open Author tool on OER Commons to protect and manage the resources created or remixed by you before sharing.

— More information

- OER Commons> How to Use Open Author on OER Commons
- WordPress.org

# Metadata of resources

October 25, 2022
Categories: Describing resources
Tags: Innovator

Metadata refers to the tags or key-words that you define to characterise a certain piece of information or document, which is key to facilitate being found by other potential users. After creating an OER, it is important to make it visible amongst the millions of results in an online search and that's when metadata play an important role. When uploading an OER to a repository, there will be a field in which you are asked to insert a short description and a set of keywords/tags. Given that this information is crucial to boost your OER's visibility, it should be pondered carefully.

Most OER repository also ask to identify the open licence that relates to the OER, which can be used to filter search results.

Teachers should know that if they do not assign good metadata to their OER, it will not be discoverable (and if your resource is not discoverable it may as well not exist, because nobody will find it). But this process doesn't have to be overwhelming or even time consuming. Teachers should put themselves in the shoes of those who may be looking for and a specific OER and think of the words/ phrases might they use – including, e.g., information as to content, format, context, timeframe, open license, etc. Jargon is not something that they should avoid, but simple terms are most times more effective. Moreover, the concept of "too much metadata" does not apply – the more, the merrier.

— Tools

- Bring TED-Ed Learner Talks to Your School | TED-Ed
- Home | Brilliant

# Resources in public domain

October 25, 2022
Categories: Describing resources
Tags: Beginner

Public domain documents are those that are not protected by copyright, given that the rights have expired, have been forfeited, or are inapplicable, i.e., those documents or pieces of information that are free for you to use without having to ask the author(s) for permission. In order for an item to be eligible to be an open educational resource it has to be openly licensed or in the public domain.

How to determine if a work is in public domain., e.g., publications dated before 1923 are automatically placed in public domain.

Teachers should clarify learners that there is a difference between public domain and open license (e.g., Creative Commons licenses) – both imply having free access to the documents or piece of information, but the scope and nature are different. In what concerns Public Domain, copyright ownership is waived and authors give away reproduction and distribution rights to them. As to Open License, copyright ownership is retained, but authors grant specific rights to the public.

ℹ — More information
http://www.openwa.org/module-7-2/

# Creating interactive presentations

October 25, 2022
Categories: Structuring resources
Tags: Integrator

Interactive presentations are presentations in which the target audience is being considered while creating content. Thus, they are a means to create engaging, information-rich and memorable content, i.e. capture the audience's attention. One of the main advantages is that they can be used to boost the learners' engagement and participation, thus, decreasing their passivity and promoting a sense of responsibility to be attentive.

Different activities (such as: role-plays, quizzes, games, etc.) can be integrated into the flow of a presentation. Teachers can also choose to prepare a non-linear presentation (for example, using Prezzi). In this type of presentation, teachers organically flow from one topic to another considering the learners needs at the moment and not according to a predefined sequence. This is expected to increase spontaneity, and learner engagement.

— Tools

- Prezzi

# Creating OERs

October 25, 2022
Categories: Structuring resources
Tags: Integrator

The creation of OERs is grounded in the assumption that authors want to contribute to the development of open learning, by sharing their resources willingly and openly with a global community; thus, becoming community property. By creating resources in open format, potential users are invited to contribute to their refinement and continuous updating, within a specific area or cross-cutting different areas.

Teachers can use their own resources, or those co-created with colleagues, to develop OER-based lesson plans with Moodle. The structuring multimodal OERs according to a courses' syllabus, as well as the chosen learning/teaching methodology, allow for teachers to meet different learning styles and the needs of heterogeneous groups of learners.

ℹ — More information
Developing OER Lesson Plan with Moodle

# Remixing OERs

October 25, 2022
Categories: Multimodality
Tags: Innovator

Even though teachers can select OERs and use them as found, some can also be improved, developed, augmented to better suit teaching and learning purposes. OER remix refers to the possibility that is given by the author(s) to users of adapting or mashing-up OERs to meet specific learning needs, to address particular learning styles, to adjust for the proficiency level, to meet cultural tenets, to correct errors or inaccuracies, update content, among others.

Some possibilities to remix OER include editing, repurposing, merging it with other material, and more. Teachers can, for instance, add a diagram or image to a text-based OER or their own narrative (caption, audio…) to a video-based OER, swap the examples given for more relevant ones (considering the context), etc. Remixing OERs can be very useful for developing complex and interactive digital learning activities, e.g. interactive worksheets, online assessment tasks, online collaborative learning activities (e.g. wikis, blogs), etc.  Don´t forget that you can also repurpose OERs, i.e. use them for learning purposes that were not foreseen by authors beforehand.

— Tools

Remixing OER – Open Educational Resources

# Creating interactive educational materials

October 25, 2022
Categories: Multimodality
Tags: Expert

Interactive learning materials are learning resources designed that may comprise any combination of text, images, audio, video – including screencasts, animations, self-test questions and other activities. The use of these materials imply that learners is not passively skimming through and skipping content. Instead, they have to solve problems, take decisions, pose questions, search for information, test assumptions and take risks.

Teachers can use interactive learning materials in class to forgo the traditional one-way communication in favour of getting learners engaged with the course material. It can also be used for nurturing learning in asynchronous environment. In the mid-term, these resources are time-saving for teachers and very valuable to scaffold learning.

Tools
- nearpod

# Multimodal learning resources

October 25, 2022
Categories: Multimodality
Tags: Expert

Learning resources can rely on different formats to convey information, i.e., a mixture of two or more presentation modes (text, image, audio, video). They can foster meeting the various learning styles of learners, by means of providing support to the visual, auditory, reading and writing and kinaesthetic (VARK).

Learning can be enriched by articulating different resources on the same topic, for instance replicating the pronunciation of a given word, by using the Google pronunciation tool (and simultaneously move one's mouth while learning it) or using visual dictionaries that incorporate text and image.

Tools

- Google Pronunciation Tool
- Meriam-Webster Visual Dictionary Online

# Selecting OERs

October 25, 2022
Categories: Open Educational Resources (OERs)
Tags: Integrator

Selecting OER implies judging whether a certain OER is suitable for use within a specific teaching and learning context.

Teachers can select OER based on the same standards they use to evaluate other course materials. Evaluation areas may include, for instance, content, accessibility, quality and format. Furthermore, personalised criteria and indicators that meet the learning outcomes can also be considered, i.e. if it promotes: cultural awareness and sensitivity, acceptance and respect for others' opinions, self-reflection and self-assessment, etc.

In any case, it is important to identify if the OER are open-licensed and freely sharable, reusable and/or remixable the content, given that it will condition its use.

Tools

- Searching OER Using Google's Advanced Search
- Checklist for Evaluating Open Educational Resources (OER)
- Rubrics for Evaluating Open Education Resource (OER) Objects

# Identifying OERs

October 25, 2022
Categories: Open Educational Resources (OERs)
Tags: Beginner

As defined by UNESCO (2021) "Open Educational Resources (OER) are teaching, learning and research materials in any medium – digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions." OERs are free of copyright content and easy to modify; moreover, they can usually be found in multiple trustworthy locations and are clearly licensed (e.g., through Creative Commons).

There is a huge variety of digital resources available on the Internet that can be reused for teaching and learning, e.g., educational materials (textbooks, syllabi, course activities, readings, etc.), Massive Open Online Courses (MOOCs), among others. Besides being free of charge they can also be found in multilingual format, since they are produced around the world. You can find resources for your teaching in content libraries and collections, using key terms and/or filtering by publication date, language, educational level, etc.

— Tools

- EDUCAUSE library
- TEDEd
- The Community College Consortium for Open Educational Resources
- OpenStax
- Free Online Course Materials
- MIT OpenCourseWare (OCW)
- The Open Course Library
- OER Commons
- WikiEducator
- The World Digital Library (WDL)
- MOOC.org

# Two-way communication – messaging systems

October 20, 2022
Categories: Communication
Tags: Integrator

Messaging systems connect students, teachers and others involved in the learning process. These systems are more than simple text messaging systems, but they offer helpful features such as …

- a feedback system that allows the sender to check how many of the recipients have already read the message.
- a schedule that allows the user to plan the sending of the message.
- private communication between the teacher and a student – this communication remains hidden for the fellow students.

Educators can easily interact with learners in the form of a personal exchange in a two-person setting or in a group setting. Most of these messaging tools offer the feature of seeing only the name of the participants rather than the phone numbers which makes communication more personal and also easier.

🧰 — Tools
Most Learning Management Systems (LMS) offer a two-way communication tools resp. messaging system. Additional messaging systems:

- **Remind**: connect students with people and resources – https://www.remind.com/

# Surveys and quizzes as a feedback system

October 20, 2022
Categories: Feedback and guidance
Tags: Integrator

Use surveys and quizzes as a kind of feedback system. Create surveys and polls to get an overview of the level of understanding.

— Tools

- **Crowdsignal**: create surveys and polls – https://crowdsignal.com
- **Socrative**: simple quizzes can be created. There are three types of answers: multiple choice, true/false and free text entry. The participants also see both the question and the answer options on their screen – www.socrative.com

# Using analytics to forsee the students' needing assistance

October 20, 2022
Categories: Anticipating learners' needs for guidance
Tags: Expert

Built-in analytics tool in the learning management system can indicate those students that need additional assistance. The tool identifies student's status (at risk, normal, ahead), based on their activity in a course. Having the information from analytics tool the educator can reach out the affected students and provide help where needed in order to prevent the negative results and low learning performance.

ℹ — More information
Learning analytics in the learning management system

For instance:

- Moodle – https://docs.moodle.org/dev/Learning_Analytics_Specification
- MS Teams – Educator's guide to Insights in Microsoft Teams

# Short audio explanations

October 20, 2022
Categories: Anticipating learners' needs for guidance
Tags: Expert

Short audio files can be of additional help to students and can contain different type of information. These short files can provide additional explanation that is not part of the input itself, but it can contain organisational assistance as well as some technical details. Audio files can be uploaded to the course, posted in a form or a chat channel or added connected to the relevant content as additional resource. The audio data can be recorded with a smartphone or any other device or the audio and video short explanations can be recorded directly in LMS.

# FAQs – Glossery for students

October 20, 2022
Categories: Anticipating learners' needs for guidance
Tags: Integrator

As the learners often ask the same or similar questions. the educator can create glossary items explaining those unclarities. The FAQs can be answered in a form of a glossary and make available to students for exploring.

— Tools
Glossary in Moodle or similar activities in other LMSs.

Glossary as an activity is integrated in the learning management system Moodle.

The concepts in the glossary can be structured thematically in categories.

https://docs.moodle.org/311/en/Glossary_activity

# Concept mapping

October 20, 2022
Categories: Structure content
Tags: Integrator

In concept mapping, areas of knowledge are represented in the form of a conceptual network. A concept map describes the meaning of specific topics (concepts) and their relationships to each other. The nature of the conceptual relationships becomes visible through the positioning of the terms in the network (e.g. superior, inferior hierarchy).

The terms are connected by lines. The terms or symbols noted on the line describe the type of relationships (e.g. causal, temporal relationships).

**Learning targets of a concept map:**

- explore how learners structure their knowledge
- structure and understand their knowledge conceptually
- identify missing or misunderstood concepts
- communicate structured knowledge

🧰 — Tools
**Digital realisation of a concept map:**

- Power Point
- Mind Maps (Mindmanager)
- Adobe Illustrator
- Publisher
- Concept map (Lucidchart): www.lucidchart.com/pages/

# Advanced organizer

October 20, 2022
Categories: Structure content
Tags: Integrator

The advanced organizer is a visual learning and orientation tool given by the teacher in advance, which structures new learning content and links it to prior knowledge and competences. The advanced organizer presents the essential new contents of a lesson in a compact and comprehensible way, so that the students get a first overview of the structure and the different contents of the topic even before they start working on the material.

The advanced organizer provides an overview of

- the subject matter of the course,
- the structure of the course
- and, if applicable, subject areas adjacent to the course.

🧰 — Tools
Digital realisation of advanced organizer**:** you can use any visualisation tool to organise and visualise the learning content, such as:

- Power Point
- Mind Maps (Mindmanager)
- Adobe Illustrator
- Publisher

# (Digital) Knowledge maps

October 20, 2022
Categories: Structure content
Tags: Integrator

Knowledge maps visualize areas of knowledge. They are a graphic representation of knowledge and its structure. Knowledge maps give an overview and details of a subject – models, structures and concepts that underlie a subject area can be explored and understood. Knowledge maps offer the chance to make complex topics more accessible in courses.

— Tools

**Digital realisation of knowledge maps:** you can use any visualisation tool to organise and visualise the learning content, such as:

- Power Point
- Mind Maps (Mindmanager)
- Adobe Illustrator
- Publisher

# Chatbot services

October 20, 2022
Categories: Artificial intelligence (AI)
Tags: Integrator

Chatbots are special programmes whose purpose is to communicate autonomously with a (human) counterpart. Most often, the term chatbot is used in the context of a specific communication goal (e.g. chatbots for providing information or ordering a product). Within educational context, chatbots can be used as tutors. By interacting with students, they learn about their needs and questions and know where they need support. The chatbot recognises the user's intention, extracts the relevant data from the request and generates a response.

— Tools
Many education apps have an integrated chatbot functionality. For example, the communication and project platform Slack has an integrated chatbot.

**Slack DailyBot**: daily surveys can be conducted among students to increase motivation and record performance. – DailyBot | App-Verzeichnis von Slack

This bot can be simply installed from the app directory into a so-called Slack workspace that one runs and assigned to the relevant communication channels ("Channels").

# Virtual desk – keep your notes, manage your projects and share your ideas

October 20, 2022
Categories: Self-regulated learning experience
Tags: Expert

Digital tools that enable learners to plan their own learning and keep their notes in an organised place. Use digital technologies to create a digital workspace where learners can not only organise their tasks but also use it like a virtual desk where they can put their work material, plans, ideas, etc.

Some parts of the virtual desk can be private, others public – it is simply a virtual place where knowledge and experiences can be shared in a digital way.

💼 — Tools
**Notion.so**: includes following templates: Meeting notes / To-dos / Weekly agenda / Docs / Roadmap / Design system / Employee onboarding / Product wiki / Content calendar

**Notion …**

- works like a website where you collect and share content. Notes are called “pages”.
- offers the possibility to organise dates.
- records and reviews decision-making processes.
- is an “all-in-one workspace”.
- offers the possibility to create Wikis for your project/organisation.
- offers a public workspace and a private working area.

https://www.notion.so/

**Trello**: is a web programme that functions according to a card index system in which individual tasks can be created and processed one after the other. You can create different boards (projects) and add a series of cards. Each card represents a topic that you and your team need to work on. Add comments or create new cards to organize your work. – https://trello.com

**Evernote**: Software and web application that supports collecting, organising and finding notes, documents and photos in various formats. – https://evernote.com/intl/de/

**Slack**: brings people, to-dos, data and documents together in one virtual place. It is a collaboration platform that helps you to organise your work and to stay connected with people. – https://slack.com/intl/de-at/

**Toggle:** Helps you to plan and organise your to-dos. – https://toggl.com/plan/index

# Individual learning plan

October 20, 2022
Categories: Self-regulated learning experience
Tags: Integrator

A learning plan is an activity plan that helps students organise, achieve and assess their learning goals. In a first step the student defines the competencies he or she wants to achieve. Based on these competencies, he or she selects different study courses, including the specific resources and activities, that supports achieving the selected competencies. The individual learning plan thus represents the student's personal learning path. The plan provides an overview of the identified learning needs and should include all the digital learning resources identified by the student.

The individual learning plan is comparable with the **personal study plan (PSP)**. A personal study plan (PSP) is a plan that students create and work on for themselves. It contains the contents, scope and duration of the study programme. The study plan of the degree programme serves as the basis for this personal plan. The PSP helps students to stay on schedule and to progress in their studies. The plan must be updated on an ongoing basis. The PSPs are created in and supported by various institutional student administration systems.

The difference between an individual learning plan and a PSP lies in the different approach. While the PSP is based on the curriculum, the individual learning plan is based on the predefined competence framework. The development of a competence framework is usually done by the grouping of related domain competencies.

🧰 — Tools
Digital tools supporting the development of individual learning plans are:

- **LMS Moodle:** functionality "create Individual Learning Plan"
- **Airtable –** https://www.airtable.com/
- **ClickUp –** https://clickup.com/

# Joint editing of documents

October 20, 2022
Categories: Collaborative idea creation
Tags: Integrator

Documents, tables, etc. can be edited jointly with the document editing tools. These enable the joint creation and editing of files. In most cases, everyone who is authorised to access the files can edit them simultaneously. The changes made by others are then usually visible in real time, so that one can follow live who is making which change.

Important functions of those tools:

- **Change tracking**: Changes can be tracked, so that it is possible to see who made the changes.
- **Real-time collaboration**: With the help of the tool, you can work together on one or more documents. The changes are synchronised in real time for all users.
- **In-tool communication**: Within the tool, people can communicate with each other communicate – e.g. chat
- **Comment function**: comments can be left when editing a shared document.

🧰 — Tools
Some tools for selection

- **Google Docs**: working together on a document; making changes visible in real time. – https://www.google.com/docs/about/
- **MS Teams**: upload documents on MS Teams and work on them together. – https://www.microsoft.com/en/microsoft-teams/log-in
- **Conceptboard**: you can upload all kinds of documents, integrate different templates (brainstorming, project design, to-do lists, etc.) or design your own discussion structure. All files can be edited together in real time. – https://conceptboard.com/
- **Etherpad**: Etherpad is a web-based, real-time collaborative editor that allows students to edit a text document simultaneously and see everyone's changes in real time, with each author's text displayed in their own colour. There is also a chat box in the sidebar that allows metacommunication. – https://etherpad.org/
- **HackMD**: is a free service that enables the simultaneous editing of texts in the browser. You can create collaborative presentations. – https://hackmd.io/home

# Organisation and conception of joint projects

October 20, 2022
Categories: Collaborative idea creation
Tags: Integrator

To plan, design and realise joint projects, students need an environment that allows for an uncomplicated exchange of ideas, tasks, documents, etc. Instead of sending masses of emails, the organisation takes place via a common platform.

### 💼 — Tools

There exist various online tools that support the organisation and conception of joint projects – just to mention a few:

- **Slack:** brings people, to-dos, data and documents together in one virtual place. It is a collaboration platform that helps you to stay connected with people. –https://slack.com/intl/de-at/

- **Trello**: is a project management tool that helps you to organise your tasks and to work together on a topic. – https://trello.com/en

# Sharing knowledge in teams * BarCamp

October 19, 2022
Categories: Collaborative idea creation
Tags: Expert

BarCamp is a group discussion format where no distinction is made between speakers and audience and where sessions are proposed spontaneously. The focus of a BarCamp is the exchange of knowledge within a defined group of people.

It is not the organiser (or teacher) of the BarCamp who defines the topics, structure or focus of the session, but the participants (or learners) propose and select in a democratic process which topics or questions they want to work on.

The facilitator (educator) assigns a room and a specific discussion time to each selected topic. The participants (learners) then decide which session they want to attend. They can participate in the session because they want to know more about that topic, because they want to share their expertise or because they have specific questions about that topic – there are different roles they can take.

A session usually lasts one hour. 45 minutes are reserved for content, and the participants need another 15 minutes to change rooms between two sessions and to adjust to new topics. Students become experts and contribute their knowledge and experiences. A BarCamp helps to connect a teaching subject with the concrete world of experience of the students. It's a good opportunity for working in heterogeneous groups.

💼 — Tools
You can use various video conferencing tools to realise a BarCamp:

- **MS Teams**: use break out rooms to organise the different BarCamp sessions – Log In | Microsoft Teams
- **Zoom:** https://zoom.us/
- **BigBlueButton:** offers helpful features like personalised rooms, polls, chat, multi-user whiteboard, document upload; GreenLight is a user-friendly interface for the open source web conferencing system BigBlueButton. – https://bigbluebutton.org/
- **Google Meet:** https://meet.google.com

# Idea creation and visualisation in teams

October 19, 2022
Categories: Collaborative idea creation
Tags: Integrator

Use the collective knowledge of the students to work on new ideas and develop new solutions together. Support this creative process of the students by using (digital) tools that help to jointly visualise and develop ideas. Methods that support creative thinking in teams:

- **Mind-mapping**: collection of ideas and visualisation of contexts
- **Concept creation**: developing concepts by using various visualisation formats and business models.
- **Collaborative texting**: exchange ideas in real-time through collective texting.
- **Shared interactive whiteboards**: collect ideas on a digital white board; share the whiteboard via link.

🧰 — Tools
Various tools support the process of idea creation in teams, just to mention a few:

- **Coggle**: tool to organise information in a mind map with colleagues; Coggle includes a messaging panel to add comments and discuss the solution. – https://coggle.it
- **Conceptboard**: offers a big number of templates which help to work on a topic in a structured way; the concept board can be shared with others; one can integrate different media types (videos, pictures) into the concept board. – https://conceptboard.com/
- **Dotstorming**: is a whiteboard tool to collect digital notes and vote on them. This tool supports discussion and brainstorming on different topics and questions. – https://dotstorming.com
- **Stormboard**: not only offers a whiteboard functionality but also various templates that can be used for different requirements (e.g. timetables, mind maps, etc.). – https://www.stormboard.com
- **Padlet**: is a brainstorming tool that provides blank canvas to create ideas and work on collaborative projects. – https://padlet.com
- **Etherpad**: allows you to edit documents collaboratively in real-time. Students can collect their ideas together with colleagues, all working on the same document at the same time. –https://etherpad.org/
- **Google Docs**: Google docs allows you to work on a document together in a team. The changes are documented and saved automatically. Direct exchange is possible via the integrated chat function. –https://docs.google.com/document/
- **Mindmeister**: Online mind map tool that enables collaborative work. – https://www.mindmeister.com/de

- **Jamboard:** Google white board – https://jamboard.google.com
- **Twiddla**: Online Whiteboard (add photos, draw, add text, websites, ..) – https://www.twiddla.com/
- **Miro**: Online whiteboard – https://miro.com/de/

# Explanatory videos

October 12, 2022
Categories: Content presentation
Tags: Expert

These tools enable the creation of (explanatory) videos. They offer large libraries with ready-made clips, pieces of music, sounds and animations. Available features of those tools:

- **Greenscreen templates**: Video templates in which an area (i.e., face or screen) is backed by a green screen so that your own content can be placed there.
- **Instant sharing**: Created content can be shared via the respective tool on specific platforms.
- **Voice-over**: Voice recordings can be created or uploaded and be used in a presentation or an explanatory video.

💼 — Tools

- **Explain Everything**: create editable whiteboard video lectures. Record and share feedback, pre-exercises, instructions or lesson summaries – https://explaineverything.com/
- **Moovly:** Explain educational topics with videos. Create your own videos for projects, lessons or presentations. Engage your students with video assignments. You can explain topics in many ways: combine images, footage, text, drawings, sound and voice to share your content – https://www.moovly.com/education

# Understand and consolidate learning content

October 12, 2022
Categories: Content presentation
Tags: Integrator

Methods that support the understanding and remembering of learning content. Tools that facilitate the reproduction and mapping of existing knowledge.

- Tools
  - **AnswerGarden**: is a web tool for collecting short answers, ideas, and feedback from learners. The teacher shares a link, and the learners enter individual terms or groups of words. The display of the entered terms appears in real-time in the form of a word cloud – https://answergarden.ch/

# Interactive online visualization formats

October 12, 2022
Categories: Content presentation
Tags: Integrator

Online visualization formats/tools support an interactive knowledge transfer and offer possibilities to visualize content in an understandable and creative way. There are a variety of ways to visualise content and lectures. Just to mention a few …

— Tools

- **Wortwolke**: is a word cloud and tag cloud generator. It's a creative possibility to visualize key elements of a learning topic – https://www.wortwolken.com/
- **MS PowerPoint** – Microsoft PowerPoint Slide Presentation Software | Microsoft 365
- **MS Visio** – Visio in Microsoft 365 – Diagram and Flowchart Creator | Microsoft 365
- **Google Drawings** – Google Drawings – Chrome Web Store
- **Bubbl.us**: is a mind mapping tool – https://bubbl.us
- **Lucidchart**: is a diagramming application – https://www.lucidchart.com

# Online presentation formats

October 12, 2022
Categories: Content presentation
Tags: Expert, Integrator

Online presentation formats offer teachers the opportunity to present their teaching material to students in an understandable and creative way. These presentation tools are intended to enrich teaching through visual inputs, i.e. in the form of alternative types of presentation.

— Tools

**Integrator level:**

- **Easel.ly**: use visual elements to explain content and make your presentation livelier – https://www.easel.ly/
- **Infogram**: create infographics and reports; visualization tool which helps to create informative content – https://infogram.com/

**Expert level:**

- **Prezi Video**: allows you to interact with your presentation and visual aids on the screen. You can create interesting visualisations and then appear on the presentation screen to share them. One can also record a video to share it later. It is a good way to maintain an interpersonal relationship during online sessions – https://prezi.com/

# IMS content package

October 12, 2022
Categories: Content presentation
Tags: Innovator

An information management system (**IMS**) content package consists of files packaged according to an agreed standard of data representation for reuse in different data and information management systems (e.g., IMS, LMS), without the need to convert the material into new formats.

IMS content packages can be uploaded as a ZIP file by the IMS content package module and added to an LMS course (e.g. Moodle course) as a resource. The IMS content package in Moodle provides various options for displaying content based on a navigation menu or buttons etc. Two relevant usages of IMS content packages are the presentation of multimedia content and animations.

— Tools
IMS content package in Moodle – IMS content package – MoodleDocs

# Whiteboard in online sessions

October 12, 2022
Categories: Content presentation
Tags: Integrator

Virtual whiteboards allow one or more users to write or draw images on a simulated canvas. Virtual whiteboards can be used in virtual meetings and collaboration, instant messaging applications, conferencing tools and apps.

— Tools

- MS Teams whiteboard – Digital Online Whiteboard App – Microsoft Whiteboard
- Zoom whiteboard – Sharing a classic whiteboard – Zoom Support
- Lucidspark – https://lucidspark.com

# Creating presentations easily

October 12, 2022
Categories: Content presentation
Tags: Beginner

The presentation of a content offers different visual and audio elements to tell a story. The presentation tools offer easy-to-use, customizable templates to create the content from a scratch, add text, images, art, and videos, add transitions, animations, and cinematic motion.

The presentations can be used to accompany the live presentation of an educator or independently for asynchronous learning. The easy-to-use presentations can be adapted for different purposes and therefore are very common for content presentations in educational settings.

— Tools

- PowerPoint – PowerPoint for Windows training (microsoft.com)
- Canva – https://www.canva.com/
- Google slides – Google Slides: Online Slideshow Maker | Google Workspace
- Keynote for Mac users – https://www.apple.com/keynote/

# Screencasting

October 12, 2022
Categories: Content presentation
Tags: Expert, Integrator

A screencast is a digital recording of the computer screen, also known as a video screen capture or a screen recording. The screencast often includes an audio commentary that can help demonstrate and teach different content. This form is especially interesting for the content that includes a demonstration of a process, instruction for use or any other explanatory content.

— Tools

- Screenrec – https://screenrec.com/
- Camtasia – https://www.techsmith.de/camtasia.html
- OBS Studio – https://obsproject.com/
- Active presenter – https://atomisystems.com/

# Authoring software

October 12, 2022
Categories: Content presentation
Tags: Expert, Innovator

Authoring software is a common name for all different products that offer some pre-programmed elements for the development of interactive media content. When creating the learning materials the software offers elements for interactions, audio/video recording, storyboarding, possibility to integrate tests/assessments that can be included into the learning material in order to offer a full learning experience. The finished product can be saved, exported and embedded in LMS, or other platforms.

— Tools

- Articulate Storyline – https://articulate.com/
- ISpring Suite – https://www.ispringsolutions.com/ispring-suite
- Adobe Captivate – https://www.adobe.com/products/captivate.html
- Xyleme Studio Authoring System – https://xyleme.com/

# Interactive images

October 12, 2022
Categories: Content presentation
Tags: Integrator

ThingLink is a tool that enables the creation of interactive posters with images, videos and 360° media to explain complex ideas and context. The content can be created to improve online learning, training and virtual experiences with interactive scenarios that can be easily embedded into any platform.

— Tools
ThingLink – https://www.thinglink.com/

# Digital game-based learning

October 11, 2022
Categories: Collaborative aproaches
Tags: Expert

Digital game-based learning (DGBL) is a method in which (mainly) digital games are used to deepen a topic through playful learning elements.

*„In the field of education, game thinking means solving problems with game-like concepts, looking at how learners can be motivated to create engaging learning environments and supporting students in their learning process. "* (Bovermann, Bastiaens 2020)

As games are primarily played in teams, DGBL can be perfectly used for collaborative learning initiatives.

**Game elements:** Game-based learning uses game-like elements such as leaderboards, progress bars, points or badges in online learning environments to foster students' motivation to reach a defined (learning) goal – i.e., students get an "expert badge" when they complete a pre-defined number of learning tasks or interactions.

**Motivational aspects:** The four identified needs that are essential for (intrinsic) motivation, autonomy, competence, relatedness, and purpose, define the motivational basis for the game mechanics. Direct feedback through game elements/mechanics (i.e., badges) can increase students' motivation in (online) learning.

🧰 — Tools
There exist various complex game-based learning tools. The following tools only use simple game elements like points or rankings:

**Kahoot**: creating quizzes (single playing or team playing); teacher defines questions including time limits. Speed of answering and correctness of the question determine the number of points. It's a live quiz (synchronous use).

https://kahoot.com/

**Quizalize**: create quizzes or use existing quizzes from Quizalize library. Assign follow-up activities to any quiz. Play in-class games or assign as homework. Visualize student performance and monitor improvements.

www.quizalize.com

ℹ️ — More information
Reference: Bovermann, Klaudia; Bastiaens, Theo J. (2020): Towards a motivational design? Connecting gamification user types and online learning activities. In: *Research and Practice in Technology Enhanced Learning* 15 (1), S. 1-18.

# Stump your partner

October 11, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Integrator

Stump your partner activity can be used as a review or consolidation, i.e. when students have already learned the content. Students take one minute to create a challenging question based on the content of the lecture so far and ask the question to their partner in breakout rooms.

The activity can be performed using the regular features of the learning system, such as breakout rooms or some tools for group communication.

🧰 — Tools

- **Slido**: https://www.sli.do/
- **Retrotool**: https://retrotool.io/
- **SpatialChat**: https://spatial.chat/

# Cumulative brainstorming

October 11, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Expert

Cumulative brainstorming – this collaborative activity promotes deep learning by encouraging students to build on or critique each other's ideas. The students work in group. Each group get a different topic, question or problem and has about five minutes to write down some ideas about the topic. After that the group get another topic, continue and accumulate the ideas that previous group has already started.

In this setting the groups are working separately but the ideas have to be accessible immediately to other groups. It is recommendable to use groups (e.g. breakout rooms or channels) and one collaborative space – whiteboard (for instance MS Teams), padlet, miro or similar with distinguishable areas of topics.

🧰 — Tools
For grouping: e.g. breakout rooms or channels.

Collaborative space (whiteboard, pinboard):

- Miro: https://miro.com/
- Padlet: https://padlet.com/

# Guided analysis

October 11, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Integrator

Guided analysis activities take students step-by-step through the process of analysing a complex situation.

- Special features: This technique helps students develop their analytical skills in each area by using an example to observe their analytical skills in action.
- Setting requirements: group work and collaborative editing.
- Tools used: breakout rooms and office sharepoint; google docs.

Time required: 30-50 minutes

— Tools

- https://www.office.com/
- https://docs.google.com/

# Case study in live session

October 11, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Integrator

A case study is an active learning activity in which students read a predefined data set, scenario, or application. The case study is accompanied by a list of questions that asks students to think about the information and formulate a response.

Create four to five case studies with a similar level of difficulty. Students work in groups of 4 or 5 in breakout rooms about 10-15 minutes (or enough time) to work through the cases.

— Tools

- **Breakout rooms** – i.e. via MS Teams
- **Mural**: https://www.mural.co/
- **Miro**: https://miro.com/
- **Conceptboard** – using a suitable template: https://conceptboard.com/
- **Spatial.Chat** – enables grouping in a space: https://spatial.chat/
- **Retrotool** – enables a notes-preparation area – students can put their thoughts in a private space before sharing them with others: https://retrotool.io/

# Fishbowl debate

October 11, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Expert

In a fishbowl discussion, students sitting in the “fishbowl” actively participate in a discussion by asking questions and sharing their opinions. This strategy is particularly useful when you want to ensure that all students participate in a discussion, when you want to help students think about what a good discussion looks like.

- In the presence setting, the students who are not sitting in the “fishbowl” listen attentively to the ideas presented. Students take turns in these roles so that they practice both contributing and listening in a group discussion.
- It is possible to adapt this activity to online setting as well by using the following online functionalities/tools:
  - breakout rooms
  - Chat – enables spontaneous grouping in a space
  - Retrotool – enables a notes-preparation area – students can put their thoughts in a private space before sharing them with others.

💼 — Tools

- **Breakout rooms** – i.e. MS Teams
- **Spatial.Chat**: https://spatial.chat/
- **Retrotool**: https://retrotool.io/

# Catch up

October 11, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Integrator

Catch up is an active learning technique that allows students to take short breaks during the lecture to clarify, assimilate and retain the information previously presented. This is a great strategy to help students review, reflect and consolidate their notes. In addition, it only takes a few minutes in class and can greatly increase student learning.

Duration approx. 4 minutes.

— Tools
**Spatial.Chat** – in a space the students can gather (in pairs) to compare the answers and share them with the whole group

https://spatial.chat/

# Student response approach

October 11, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Integrator

As an educator, you work hard to motivate students to engage. The student response approach includes different methods to encourage students to actively participate. In this context the use of so-called student response systems (SRS) is helpful. Student response systems (SRS) are systems that enable the simultaneous collection of individual feedback. Educators can easily pose questions and gather students' responses in real-time.

SRS can be used even in large groups. The primary goal of SRS is to increase the interactivity between the lecturer and his/her audience (students). SRS helps to actively ask for feedback and to motivate students to participate in class, i.e. via quizzes and polls.

These systems offer support on various levels:

**Activate listeners**

- speed control: ask students whether the lesson should be speeded up or slowed down.
- generate focus and activate listeners: i.e., open the lesson with a start question and reflect on the answers.

**Content reflection**

- content reflection: check understanding and identify knowledge gaps.
- collect opinions: easily check different opinions on a topic.

**Peer discussion**

- peer discussion**:** students answer the same questions before and after a peer discussion – reflect on the different results.

**Course management**

- course management**:** involve students in the design of the course through collecting feedback on open questions/issues.

**Student generated content**

- develop questions for future use in the SRS: Students generate questions, answers and explanations on specific topics of the course. The lecturer acts as a project supervisor who analyses the questions to make a suitable selection of them available to the students in the next semester.

SRS offers teachers the opportunity not only to teach their content to the students but also to test and promote their understanding of the content through SRS questions. Regardless of whether it is

a small group or a large audience, teachers can design their lessons in an active and feedback-oriented way

💼 — Tools
SRS are integrated in the teaching and learning systems of your institution – f.e. MS Teams, Zoom, Moodle.

Possible Student Response Systems (SRS) are:

- **ARSnova** from Particify: https://particify.de/en/
- **eduVote** is an application for smartphones; it can be integrated into power point presentation; anonymous participation is possible: https://www.eduvote.de
- **feedbackr**: no app needed; anonymous feedback possible: https://www.feedbackr.io/education/
- **FreeQuizDome**: no app needed; picture response possible; drawings on virtual whiteboard: https://freequizdome.com/index.htm
- **Tweedback**: quizz; chatwall; panic button: https://tweedback.de
- **UniDoodle**: draw questions and answers: unidoodle.com
- **Wooclap**: 20 different interaction options; synchronous/asynchronous learning; anonymous participation; share content: https://www.wooclap.com/de/
- **GoSoapBox**: it can be used anonymously for the students, but teachers can still see who is answering; it includes a 'confusion meter' that indicates how well the students have understood the topic: https://www.gosoapbox.com
- **Mentimeter**: interactive polls, quizzes: https://www.mentimeter.com
- **Quizizz**: quizzes: https://quizizz.com

# Virtual spaces for collaboration

October 11, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Expert

Open virtual spaces for discussion and collaboration. Use a virtual space like a regular classroom or meeting room, where you can not only present your materials but also offer different ways (virtual spaces) to get in contact and to exchange opinions.

— Tools

**Wonder.me**: Video conferencing solution which, in addition to lectures in the plenum, also allows discussions in several groups in parallel in the same room. As admin you can customise the room. Each participant is represented through an avatar (photo). By moving and clicking the left mouse button, you navigate your avatar in the room. If two or more people come close to each other, a video chat window opens and the conversation can begin.

https://www.wonder.me/

**Gather.town**: interaction tool for group discussions. In the form of an avatar, people enter a virtual space where they can join different groups or enter rooms. As people get closer virtually, a video, audio and written chat begins

https://www.gather.town

# Students proposing topics

October 5, 2022
Categories: Fostering creativity, criticality
Tags: Integrator

Text-based chats (any LMS's*) or audio or video enabled chats can be used in versatile ways for learner-driven approaches.

Students can, for example, propose topics and areas which they wish to get discussed. Students can also comment on each other's chat entries or video clips.

Flipgrid is an example software that enables exchange of short videos.

*Learning Management System

— Tools
Flipgrid by Microsoft

# Poll activity

October 5, 2022
Categories: Fostering creativity, criticality
Tags: Integrator

Polls and voting activities are one way of keeping students active during online classes.

Polling can be realized with many different technical tools, often integrated in the LMS's* or digital classrooms such as Teams or Zoom.

Examples of other voting tools are Kahoot, Miro, Doodle.

*Learning Management System

💼 — Tools

- Polls and word clouds in Kahoot!
- Voting in Mentimeter
- Voting in Miro
- Doodle Polls for appointment scheduling, surveys, questionnaires
- Poll Everywhere
- Slido

ℹ️ — More information

Whitaker, S . (2021, April 27). Engaging Learners in Online Classes . YouTube. https://www.youtube.com/watch?v=_B0oUIZKE8s

# Flipped learning

October 5, 2022
Categories: Fostering creativity, criticality
Tags: Expert

FL is a pedagogical approach that helps educators prioritize active engagement during class and give the materials to be viewed in advance outside the class.

FL can be implemented digitally as well as face-to-face.

ℹ — More information
An Introduction to Flipped Learning

# Starter activities

October 5, 2022
Categories: Fostering creativity, criticality
Tags: Integrator



Examples of starter activities:

- → Based on pre-reading the students answer a set of multiple-choice questions in pairs and decide together which answer is the correct one. (Break out rooms)
- → The students can be asked to list as many lessons as they learnt in a previous class of the course. This will have them tune in on the topic at hand. (Chat; digital white board)
- → The students can be polled during the first session that has them ponder their previous experience with and knowledge of the topics studied, or their expectations for the course.
- → Short revision questions for groups to discuss. For example, they can be asked to define new terms or produce a list of five key points on the basis of the answers they produce to the revision questions. (Break out rooms)
- → Students can be grouped in groups of 3-4 students and given a list of some key terms from a previous class(es). The teams explain the terms in an online learning collaboration tool, such as Padlet or Miro. Once all the teams have defined their terms, other teams study the definitions and try to identify which terms have been explained. The teams that explained the terms can then give the correct term next to each term once they have been named correctly by other students. The link to the online tool can be saved in the virtual learning environment of the study unit for all students, who can go back to the terms and definitions even later on to refresh their memory or when studying for an exam for instance. (Break out rooms)

— Tools

- Breakout rooms
- Padlet
- Miro
- Polls
- Multiple choice tests

# Extended reality

October 5, 2022
Categories: Fostering creativity, criticality
Tags: Innovator

Augmented reality (AR) refers to an interactive experience in which technology infuses digital information into a user's perception of the real world. That input — usually visual or auditory — appears essentially seamless to the user. Access to this world can be via head-mounted or hand-held equipment designed specifically for AR, or through a computer monitor, special eyeglasses, gaming devices, or even a smartphone.

A simple example of AR might be the projection of numerical data via Google Glass to inform a surgeon of a patient's vital signs during a procedure.

Virtual reality (VR), can be defined as immersing a user in an entirely simulated environment.

Mixed reality (MR) takes technology further, blending real and virtual worlds in ways through which the physical and digital worlds can interact. One way to think about this difference is that while AR essentially creates a virtual overlay on top of the real world, MR does more to integrate virtual objects and input into the physical world. Thus, MR takes the user deeper into immersive learning.

A close cousin of MR, AR, and VR are sometimes grouped under the umbrella term XR, or eXtended reality.

ℹ — More information
Augmented and Mixed Reality in Higher Education – PDF

Exploring the Future of Extended Reality in Higher Education

Virtual reality workspace

# Students as discussion facilitators

October 5, 2022
Categories: Fostering creativity, criticality
Tags: Integrator

This method is close to collaborative learning. One team or an individual student is assigned to moderate the discussion of a group or a set of groups. For instance, if there are x amount of themes to be discussed the moderator(s) facilitates, takes notes, drafts a summary and reports the core outcomes of the discussions to the rest of the class. The learner gets experience as a facilitator and credits for the work.

The discussions can be realised in a digital setting's break out rooms for instance, if there are several simultaneously ongoing group discussions.

— Tools

- MS Teams
- Zoom

# Interactive presentations

September 30, 2022
Categories: Fostering creativity, criticality
Tags: Expert

An interactive presentation is one that has some content objects the student can interact with:

- hotspots
- navigation
- pop-up boxes
- polls etc.

These features help grab the students' attention and boost learner engagement.

Several techniques can be used on many levels. On the easiest level, a PowerPoint presentation can be designed to be interactive or be complemented by any whiteboard such as Flinga, Padlet, Miro, or Google Jam Board.

Alternatively, there are presentation tools that can be used for adding activating questions, polls, or quizzes, e.g. nearbod.com.

Thinglink is an example tool for making interactive images.

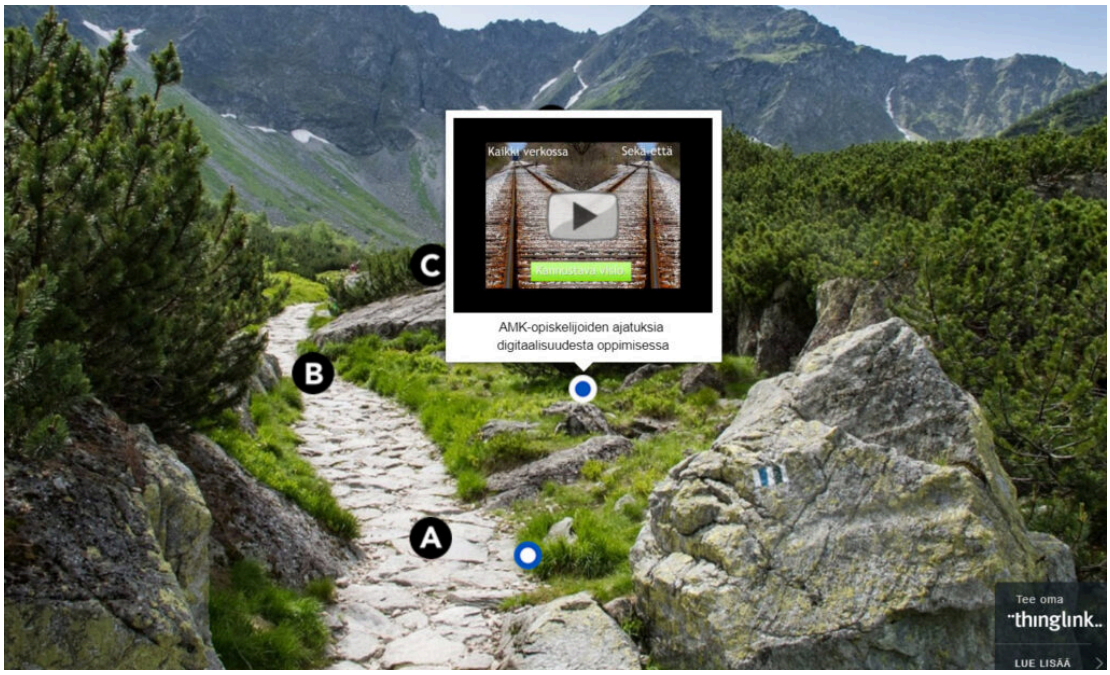



Image: Tuija Marstio. (2016). thinglink. https://www.thinglink.com/scene/708968005551259649

— Tools

- 12 Interactive presentation software – Website
- Whitaker, S. . (2021, April 27). *Engaging Learners in Online Classes.* https://www.youtube.com/watch?v=_B0oUIZKE8s
- Flinga
- Mentimeter

- Miro
- Padlet
- Nearpod
- Peardeck
- Prezi
- Thinglink

# Interactive assignments

September 30, 2022
Categories: Fostering creativity, criticality
Tags: Expert

The use of activating assignments such as quizzes, drag and drop tasks, fill in blanks, finding hotspots, image sequencing, multiple choice tests etc. will make the learning engaging.

H5P content can be easily shared across multiple learning management systems (e.g. Canvas, Moodle, Blackboard).

There are many alternative technologies. For example, Quizlet or Mentimeter which enables activities such as multiple choice tests, word clouds, open ended questions, scales, or rankings.

🧰 — Tools
**Interactive images and videos:**

Mentimeter

Thinglink

- Tutorial Thinglink:
  Blakemore, T. Interactive ThingLink Tutorial And Ideas For Teachers. Accessed 25.5.2022. https://www.youtube.com/watch?

Quizlet

- Tutorial Quizlet:
  Quizlet. (2021, April 19). *How to use Quizlet – Official tutorial for new users* . YouTube. https://www.youtube.com/watch?v=c0VkeDUeehE

ℹ️ — More information
**H5P introduction, examples and tips:**

- H5P Website
- H5P Moodle examples (Google, videos)
- H5P Canvas examples (Google, videos)
- H5P Content Types and Applications
- Sarja, J. H5P – Interaktioita helposti (in Finnish)

Singleton, R., & Charlton, A. (2020). Creating H5P content for active learning. *Pacific Journal of Technology Enhanced Learning*, *2*(1), 13-14.

# Educational animations

September 30, 2022
Categories: Fostering creativity, criticality
Tags: Expert

With the aid of computer animations, learning and teaching might become easier, faster and motivating. They are an excellent aid to educators for explaining difficult or complex subjects.

Animations can be created with many software such as Powerpoint or Canva. There are plenty of free or licensed tools to create educational videos and animations.

— Tools

- **PowerPoint:** Guidance videos for creating animations with PowerPoint
- **Canva:** Tutorial for creating animated pictures in Canva
- 8 Best educational animation software for school
- Animaker
- Powtoon
- Renderforest
- Doodly
- Vyond

— More information

**An example animation:**

EnhanceIDM!. (2020, May 27). HEAD Wheel . YouTube. https://www.youtube.com/watch?v=yuQEZ93knrs

# Collaborative process analysis

September 28, 2022
Categories: Fostering creativity, criticality
Tags: Innovator

Any work process can be made transparent and visible involving all learners and relevant stakeholders, using a digital tool. The step by step method results in a co-created solution, which reveals the weak links of the process and offers the learners an opportunity to resolve the problems creatively.

Describing work processes analytically may uncover hidden challenges to surface, help recognizing them and improve the learning by tackling the problems.

— Tools
Several online tools can be applied, for example Miro or Padlet.

— More information
Process Guide is an example of a tool for co-creating a process description, involving all actors of the chosen process. Suits well for quality management and development.

- Process Guides: Effective Guidance for Process Participants (researchgate.net) – PDF

# Visualization

September 28, 2022
Categories: Fostering creativity, criticality
Tags: Integrator

There are multiple ways of visualizing education.
Good examples are:

- Timelines
- Charts
- Image juxtapositions
- Collages
- Flash cards
- Image hotspots
- Visual pro's and con's by voting
- Mindmaps
- Process illustrations

Many of these can be created manually with specific tools (e.g. Powerpoint, Excel) or implemented as H5P tools in the LMS*.
H5P stands for HTML 5 Package. This technology enables educators to create interactive and engaging HTML5 content without knowing HTML 5 or Javascript.

Multimedia based visualizations can be applied on many levels, varying between the proficiency levels from A1 to C2.

*Learning Management System

🧰 — Tools
**Software tips:**

- MS PowerPoint
- MS Visio
- Google Drawings

**Online software examples:**

- H5P – Create, Share and Reuse Interactive HTML5 Content in Your Browser
- bubbl – Mind Mapping Online
- Lucidchart – diagramming application

ℹ️ — More information
- H5P – Create, Share and Reuse Interactive HTML5 Content in Your Browser
- Zentner, A., Covit, R. & Guevarra, D., 2019. Exploring Effective Data Visualization Strategies in Higher Education – SSRN Electronic Journal.

# Gamification of learning

September 28, 2022
Categories: Fostering creativity, criticality
Tags: Innovator

Gamification of learning is an approach for increasing learner's motivation and engagement by incorporating game elements into an educational environment. Game elements can be classified into three categories: mechanical, personal and emotional.

## Mechanical element

- means e.g. systems showing incremental progression with goals, challenges and quests
- using visible symbols of achievement such as badges
- use of tutorials for onboarding and increasing accessibility
- responsiveness by giving instant feedback.

## Personal element

- means e.g. visible status, collective responsibility and leaderboards or rankings showcasing the distribution of points total

## Emotional element

Emotional element refers to the mental state called "flow", where the learner has total focus on the task at hand.
There are three conditions that are necessary for flow to be achieved:

1. a clear goal, or set of goals for adding structure and direction to the task
2. clear and immediate feedback for helping people to adjust their performance to meet any changing demands
3. balance between challenge and skill so that the challenge level is appropriate in order to avoid to be bored or anxiety

🧰 — Tools
Gaming elements such as leaderboards, rewards and badges can be added to a Learning Management Systems. Gamification can be involved in a particular activity e.g. with use of tools such as Kahoot, Mentimeter etc. or a whole course can be gamified by using variety of game elements.

ℹ️ — More information
- 50 Great Sites for Serious, Educational Games – Center for Online Education
- Gamification and the Future of Education – Publication
- Gamification and Game-Based Learning – University of Waterloo
- How to Use Gameplay to Enhance Classroom Learning – Edutopia, Hoa P. Nguyen
- Minecraft for Education – Minecraft Education Edition
- Games for creating activating teaching resources – Wordwall

# Educational videos

September 28, 2022
Categories: Fostering creativity, criticality
Tags: Expert

Videos help students learn more efficiently and have the potential to increase engagement and memory retention.

Read about 10 methods of improving video usage and student engagement

🧰 — Tools
**Software for video creation:**

- Screencastify
- Screen Recorder and Video Editor
- Biteable
- Flip
- OBS Studio
- Nearpod
- Kapwing
- Kaltura Education-Video-Platform

ℹ️ — More information
**YouTube:**

- Greg Martin: How to create online video teaching content (content length, eye contact, cameras, mics, lightning) – YouTube
- Trefir Bazett: How to make education videos (backgrounds, cameras, mics, remote clicker, PowerPoint) – YouTube
- Andrew Borne: How to make lessons videos, screen recordings with Screencast-o-matic and Powerpoint / OneNote – YouTube
- Mr. H. Khan Academy style video (plain black or whiteboard) using Quicktime and Sketchbook (free) – YouTube
- Sam Kary. How to Make Video Tutorials with Screencastify – YouTube

**Teach with Technology Starter Kit:**

- New EdTech Classroom

# Learning by doing

September 26, 2022
Categories: Fostering creativity, criticality
Tags: Innovator

Learning by doing is a pedagogical approach, where practical problem solving and theoretical teaching go hand in hand. Instead of teacher directed lecture focus is more on “making, producing, practicing, and observing” in collaboration with other learners. The goal of this teaching approach is for learners to construct mental models that allow for applied problem solving and transfer of information and skills.

ℹ — More information

Learning by Doing, A Guide to Teaching and Learning Methods by Graham Gibbs

# Awareness of a variety of activities and flexible learning tools

September 25, 2022
Categories: Flexibility in activities
Tags: Beginner

Instead of traditional lecturing, educators can used alternative methods for knowledge sharing. For example, presentations given by students of flipped learning.
Educators can refer to recommended books, existing knowledge bases and websites or let students choose freely their sources.

More information
IDM-Toolbox

# Case simulations

September 25, 2022
Categories: Equitable access
Tags: Expert

Case study simulations can be realized digitally in Zoom or similar systems which enable (also multidisciplinary) students working together in groups solving case issues together. Successful learning experience requires good planning and informing the participants in advance of the cases, small group members, schedule, roles, etc.

# Simulation objects

September 25, 2022
Categories: Equitable access
Tags: Expert

Educators can use various teaching aids in practical workshops. In health care simulations for instance there are patient simulators, interactive mannequins, which give nursing or medical students immediate feedback of interventions performed.

ℹ — More information
SimMan is **a wireless human patient simulator that represents an average-size adult patient.** As a high fidelity mannequin SimMan can teach core skills in airway, breathing cardiac, and circulation.

Birmingham City University. (2013, 11. June). Faculty of Health Simulation Mannequins: Sim Man . https://www.youtube.com/watch?v=PmIrIasBYqs



**Faculty of Health Simulation Mannequins: Sim Man**
https://youtube.com/watch?v=PmIrIasBYqs


3G SIM MAN
CANNULA I.V FLUIDS
CONVULSIONS
HEART RATE
OXYGEN STATS
BLOOD PRESSURE
SIMULATES HEART ATTACK

# Simulation systems

September 25, 2022
Categories: Equitable access
Tags: Expert

Educators can use available training versions of electronic record systems or programs when teaching various contents and processes.

ℹ — More information
Examples of systems that can be simulated:

- Apotti is an electronic social and health care record that combines data from social and health care into a single, unified record.

Similar systems are in many fields, such as Security management systems and software; IT system management; Hotel reservation systems.

# Special educational needs arrangements

September 25, 2022
Categories: Special support
Tags: Beginner

This approach enables a student in need of special educational arrangements to have her or his needs met. It also removes the need of the student having to explain the array of issues to each teacher multiple times.



## Tips

- → Once a student has met a special needs teacher or a student counselor and the need for special educational and digital arrangements has been clarified, the arrangements the student would benefit from are listed.
- → A document template or an app can be developed for this purpose.
- → The list gives the arrangements the student needs.
- → When the student starts a new course, s/he can present the list to the educator in charge of the course. The educator then knows by studying the document what arrangements will need to be seen to so that the student can be successful and benefit from the course to the fullest.
- → The list should not give any diagnoses.

The special arrangements can include:

- **Time:**
  Upon request, certain students are given an extended time limit for assignments or online examinations (e.g. dyslexic students may be given extra time for online examinations).
- **Room/space arrangements:**
  A student is given an opportunity to utilize campus spaces or special arrangements for assignments and examinations (e.g. improved lightning for vision impaired; quiet room for students with attention disorders).
- **Technology:**
  A student is given an opportunity to use special devices for assignments and examinations (e.g. software for dictating machines; special screens).
- **Materials:**
  Access to audio books, course resources made available to the student(s) prior to them being covered in a class.
- **Mode:**
  Oral exams over written exams (a possibility to complement an exam in speaking) or any other arrangements that will see the student flourish in studies.

# Screen reader

September 25, 2022
Categories: Special support
Tags: Integrator

Screen reader, read-a-load or narrator functionalities are functionalities that convert text into voice reading, often similar to immersive readers.
Many LMS's* have in-built screen readers.

Narrator is a built-in screen reader in Windows that reads all text on the screen aloud and describes events like error messages so you can use your PC without a display. The software uses the voices already installed on your computer. Once selected, Narrator will start automatically each time you log on.

*Learning Management System

🧰 — Tools

- Use a screen reader with Immersive Reader in Microsoft Lens
- Using Screen Readers in Canvas
- Edge Browser Read Aloud & Immersive Reader Accessibility Features

# Content translators

September 25, 2022
Categories: Special support
Tags: Integrator

Text translators (often with an immersive reader functionality) can help non-native speakers or students with reading difficulties to understand content better. They are also a handy tool for language learning.

— Tools

- Text-to-Speech-Robot
- Google translator
- MS Lens
- DeepL

# Immersive readers

September 25, 2022
Categories: Special support
Tags: Integrator

Immersive Reader is a tool to assist with reading and comprehension. The student can improve focus on the text by changing font size and style, text and line spacing and background colour. These can all make documents easier to read. Immersive Reader can also read text aloud or translate it (e.g MS Lens).

— Tools
OneNote – Learningtools

# PDF scanners for notetaking

September 25, 2022
Categories: Special support
Tags: Integrator

PDF scanners such as Microsoft Lens can be a handy note taking tool for students with reading difficulties or when manual notes are not possible or practical.

MS Lens activates the phone camera and scans the content. Text can be handled as pictures but also transformed into editable text versions or listened to as audio content.

— Tools
MS Lens – support microsoft

# Virtual networking

September 25, 2022
Categories: Inclusion
Tags: Integrator

Wonder is an example of a virtual workspace for creative collaboration and networking. It enables large group interaction, topic specific areas as well as one-on-one discussions. It can be used as a virtual alternative for cocktail parties and similar networking events.

— Tools
Example: Wonder

# Fostering sense of community

September 25, 2022
Categories: Inclusion
Tags: Expert

Online programs can combine virtual social events with optional in-person gatherings. Educators can host online events that promote course rituals and traditions for online students, or encourage online students to visit in-person gatherings where they can meet each other.

Students can also be encouraged join student organizations and affinity clubs virtually.

— Tools
Example of a virtual networking platform:
Wonder

# Accessible learning materials

September 25, 2022
Categories: Equitable access
Tags: Expert

Learning materials such as documents, videos and audios should be accessible for all and compatible with assistive or adaptive technology (e.g. screen reading program) as well as with learning methods used by students with special needs.

For making the documents such as word and pdf-files accessible requires checking e.g. the reading order of the text (avoid horizontal scrolling), headings, tags, alt-texts and document name. Headings should be short and provide clear outline of the content. All images and visual should have informative and meaningful alternative text so that the importance of the content becomes understandable also for the people who can't see the screen. (W3C 2022; Microsoft 2022.)

Adobe Acrobat and Microsoft Word provide tools for creating accessible documents and reviewing the content and flagging the possible accessibility issues. Accessibility of the PDF-documents can be checked with Accessibility Check Tool in Adobe Acrobat Pro (Adobe 2022). Accessibility of the Word documents can be checked with Accessibility checker. Accessibility of the documents can be also tested with immersive reader to check how it sounds like. (Microsoft 2022.)

Adding subtitles or captions for the online lectures and other video material makes them more accessible by providing a possibility to see the dialog and other sounds. Subtitles are used for transcribing or translating the speech when the sound is available but the dialogue is not understood e.g. because of a foreign language. Subtitles do not include important sounds, only the dialog. Captions are used for transcribing or translating the speech or other important audio elements when the sound is not available or audible e.g. for people who are hard of hearing. Captions can be visible only when the user requests them. If video includes visual information that is needed to understand the content,there should be a transcript including description of the visual information as well as audio description of the visual information. (W3C 2021.)

Audio only files such as podcast and audio lectures should include text-transcript or other text-based material of the content. Media player used should be operable by keyboard so that buttons such as play, pause, stop and rewind are accessible. Controls should be clearly labelled so that they are easy to understand with screen reader. (Steenhout & Egert 2022.)

Books required as learning material e.g. for exams should have e-book or audio book alternatives.

### — Tools

- Step-by-step instructions for making accessible documents
- Guide to captioning and subtitleling
- Canvas guide for adding captions
- Live captions in Teams
- Microsoft accessibility fundamentals course
- Laurea UAS guidelines in Finnish: personalised needs on digital platforms (yksilölliset tarpeet digialustoilla)

### — More information

Adobe 2022. Create and verify PDF accessibility (Acrobat PRO) https://helpx.adobe.com/acrobat/using/create-verify-pdf-accessibility.html

Microsoft 2022. Make your Word documents accessible to people with disabilities. https://support.microsoft.com/en-us/office/make-your-word-documents-accessible-to-people-with-disabilities-d9bf3683-87ac-47ea-b91a-78dcacb3c66d#PickTab=Windows

Steenhout, N. & Egert, E. 2022. How to implement podcast accessibility. https://podcast-accessibility.com/how/

W3C 2021. Making Audio and Video Media Accessible. https://www.w3.org/WAI/media/av/

W3C 2022. Writing for Web Accessibility. https://www.w3.org/WAI/tips/writing/

# Hand singal

September 25, 2022
Categories: Inclusion
Tags: Integrator

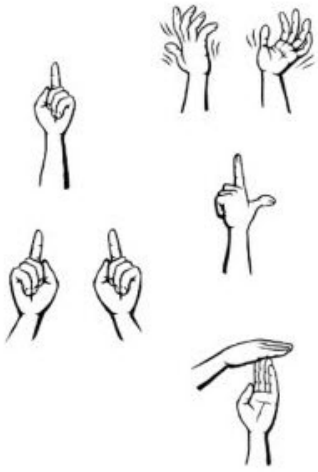
Hand-signals are a technique that can make online lectures or workshops run more smoothly and help the facilitator see emerging agreements and common ground.

The hand signals can be digital (using the platforms existing icons) or physical, using the web cameras.

Hand-signals may also help diverse students to get their voice heard during the learning conversations. The basic concept is that people use different gestures or shapes with their hands, to communicate some basic ideas in a non-verbal way (e.g. “I want to speak”, “I agree”, “I don’t understand”).

Forefinger: wish to speak.
Two forefingers: direct response to a point
Wiggling hands: silent applause
L-shape: language issue
T-shape: technical issue.

Read more about the hand signal technique in the attachment or invent similar gestures to your teaching needs.



# Accessible online learning environment

September 15, 2022
Categories: Equitable access
Tags: Expert

Educators can check their web content accessibility with tools, software programs or online services that help to evaluate if the web content meets accessibility guidelines.

Many LMS's* offer built-in accessibility checkers or widgets to detect issues in regard to usability and accessibility of the online content.

*Learn Management System

🧰 — Tools
**University of Illinois – useful tools and resources for accessibility check:**

- **Tools for accessibility check**

**Other tools:**

- **Canvas LMS**
- **Moodle Accessibility**
- **Creating an inclusive classroom with Microsoft tools – YouTube**

ℹ️ — More information
- Web content accessibility guidelines
- Web accessibility evaluation tools list
- Accessibility of teaching. University of Helsinki / Moodle.
- How to use the immersive reader in Canvas for students – YouTube

# IT-support

September 15, 2022
Categories: Equitable access
Tags: Beginner

Educators can advise students about the support and guidance available with IT software and tools as well as free software for students to use.

IT support can be offered e.g. via service portal, chat, zoom, using IT virtual agent, by phone or by email. There can be also support clinics available for students.

— Tools

- Laurea Service desk
- IT Support University of Newcastle

# Device loans

September 15, 2022
Categories: Equitable access
Tags: Beginner

Educators advise students in advance to get needed technical resources. The institution can have a device or equipment library for loaning technical devices for students who do not own them or just need them temporarily. For example, laptops, cameras, microphones, headphones, recorders, cameras etc. The device loans can be part of library services, student support services or based on a peer loan program.

ℹ — More information
Examples:

- UCL Laptop loans
- UW Seattle The Student Technology Loan Program

# PechaKucha presentation format

September 15, 2022
Categories: Content presentation
Tags: Integrator

PechaKucha is a 20×20 presentation format that shows 20 selected images, each for 20 seconds. The lecturer has 400 seconds to tell the story, with the images providing the framework. It is a good way to share an idea or topic in a short format.

— Tools

PechaKucha

How to do:

- create a presentation with 20 images – each picture is shown
- for 20 seconds
- record the audio
- share the presentation

# Learning reflection and evidence – ePortfolio

September 14, 2022
Categories: Learning reflection
Tags: Expert

Collecting evidence of completed learning interventions (e.g. essays, posters, videos, artwork) through an ePortfolio. An ePortfolio can be described as a digital collection of results, performances, or creations. In an academic setting, an ePortfolio is also used to represent a learning process and to enable students to reflect on their learning.
An ePortfolio can be customised by the student and can also include extracurricular experiences like volunteering activities or work experiences. It should provide a good picture of the student's learning progress and competencies.
ePortfolios give students a virtual space to critically evaluate their learning outcomes, reflect on this work and make connections between different courses and other (extracurricular) activities. They make invisible learning visible!

— Tools
Digital tools for the storage of performance records and visualisation of learning process/output/progress:

**Mahara:**

This tool offers students and teachers the possibility to visualise individual learning processes and acquired competences not only for themselves but also for others and to enrich them with multimedia content (photos, videos, voice recordings, presentations, etc.). In addition to the function of a personal digital folder, "Mahara" also allows the simultaneous keeping of several learning journals in the form of blogs, which can be shared with different target groups.

— More information
ePortfolios Explained: Theory and Practice

# Think-Pair-Share

September 14, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Integrator

Think-Pair-Share is a learning method to promote cooperative learning and consists of three phases:




The educator asks a question, the learners take a few minutes to think, compare answers with their partner and share these results with the whole group. This method can be used to activate prior knowledge, as a revision exercise or to actively engage students with a topic.

## Tips

- → Duration approx. 5-10 minutes
- → Implementation:

- breakout rooms
- or tools for communication such as:
  **SpatialChat** – in a space the students can gather (in pairs) to compare the answers and share them with the whole group.

🧰 – Tools
Braekout rooms or a tool for communication

SpatialChat

https://spatial.chat/

# Student feedback platform

September 14, 2022
Categories: Feedback and guidance
Tags: Expert

A student feedback platform is a (digital) place where educators guide students through the process of learning and understanding by actively asking questions. The environment provides the opportunity to engage with learners in an individual and collective way.
An essential task for teachers is to prepare questions and set the timing for feedback. The regular use of feedback loops allows teachers to gain insight into the level of understanding and to identify those students who are struggling. Teachers use the results of the feedback loop to adjust their learning materials and processes.
Using student feedback platforms enables educators to create a culture of reflective learning and helps them to get to know their students better and build positive relationships. It gives all students, even the shy ones, the opportunity to share their opinions.

🧰 — Tools
Digital tools that offer the possibility to ask for feedback are:

### Ziplet

You can set up a digital classroom where you can:

- ask for feedback, check wellbeing and understanding
- review responses and respond to students
- compare responses over time and use this as a basis for adjusting teaching and learning
- use question templates to ask for feedback
- export response data in a spreadsheet

### Kaizen

Tool for providing students with real-time feedback. Teachers can give verbal feedback and attach reusable resources to student work.

# Chat rooms

September 14, 2022
Categories: Communication
Tags: Integrator

A chat room is a digital space where learners and teachers can get easily in touch. Both teachers and learners can ask different types of questions and the answers can be given in real time. Through the questions of the learners, the teacher gets a good impression of the level of knowledge and understanding. In addition, some of the chat room tools provide a mood barometer that teachers can easily use to check the level of “well-being” of their students.
With regard to the guidance of the students, chat rooms are possibly the digital equivalent of classrooms where people meet and talk. These virtual spaces should provide a welcoming culture where every participant is treated with respect and every question is valued.

🧰 — Tools
Most Learning Management Systems (LMS) and online lecture platforms (teams, Zoom) offer a chat. Additional tools that offer the possibility to virtually meet in a (chat) room are:

### Backchannel Chat

Is a discussion tool with the following features:

- Live Chat (no page refreshment needed)
- Teachers can add files to the chat
- The chat is saved via transcript
- Teachers can send private messages to students and vice versa
- Students can vote on messages

### PALMS Backchannel Chat (YoTeach!)

Teachers can create chat rooms, post questions, moderate discussions and delete responses. Additional features: teachers can submit a drawing, create a poll or use the voting feature.

### Mattermost

Is a browser-based open-source chat software. In addition to private and open channels, private messages can also be sent.

# Storytelling

September 14, 2022
Categories: Teaching methods
Tags: Expert

Storytelling is the social and cultural activity of sharing stories, sometimes with improvisation, theatrics or embellishment. This can be used as a method in transmitting the content to the learners.
Educators can provide anecdotes, metaphors (making complex understandable), (authentic) stories of experience (lessons learned, best practices), fictional practical examples (transfer of contents). All this stories can be implemented as digital content.

🧰 — Tools

**Planing stories**

- StoryboardThat
- Wisemapping
- Storyline Creator

**Scrollytelling-Tools**

- Storyform
- Shorthand

# Interactive content

September 14, 2022
Categories: Content presentation
Tags: Integrator

The H5P activity module enables creation of interactive content such as interactive videos, question sets, interactive books, presentations and much more.
In addition to being an authoring tool for extensive content, H5P enables you to import and export H5P files for effective reuse and sharing of content.
The H5P can be integrated in Canvas, Brightspace, Blackboard, Moodle and other systems that support the LTI* standard. Furthermore, H5P has plugins for WordPress, Moodle, Drupal and several other publishing systems.

*Learning Tools Interoperability

— Tools
H5P module

# Design for All

September 14, 2022
Categories: Equitable access
Tags: Beginner, Expert, Integrator

"Design for All" (DfA) is also called "Universal Design" or "Inclusive Design". It describes a design process that aims to achieve accessibility, usability and experience ability for as many people as possible. Universal Design for Learning (UDL) helps to design inclusive learning environments.

## Three principles form the UDL framework

1. Provide multiple means of engagement – the **WHY** of learning: provide options for self-regulation, recruiting interest or sustaining effort. Strategies to keep students connected.
2. Provide multiple means of representation – the **WHAT** of learning: provide options for perception, language, mathematical expressions, and comprehension.
3. Provide multiple means of action and expression – the **HOW** of learning: provide students with multimodal ways to express themselves; provide options for physical action, expression, communication etc.

Teachers can use the UDL framework to design lessons that integrate inclusive strategies and tools.

Ad

## Why

a) Provide choice of homework type (read book, produce video, work on case study …) to address learners diverse learning needs, interests, and levels.

b) Make goals and define work packages of the lesson available (i.e., checklists, bulletin/pinboards) to make different learning paths visible.

c) Differentiate level of difficulty.

d) Invite students to reflect on the learning process (comprehensibility, speed …).

Ad

## What

a) Customize the display of information: use different media to present content (text, video) and make it accessible: provide descriptions for images; provide transcripts for videos; use text to speech functionalities; increase copy size.

b) Offer different ways to organize/visualize ideas and to support understanding: use digital graphic organizer to visualize ideas; use screencast tools to record the screen and to add messages to the learning material considering the different levels of proficiency.

Ad

How

a) Provide opportunities for students to demonstrate what they have learned in different ways; consider possible accessibility problems and respond to them by customising the way knowledge is presented.

🧰 — Tools
Different digital tools support the UDL process – to name just a few:

Ad 1) - WHY

**a) Todoist:**

Provide online checklists with daily/weekly assignments or step-by-step instructions (asynchronous communication).

*Proficiency level: B1 (Integrator)*

**b) Padlet:**

Provide online bulletin boards to give an overview of the course content.
(asynchronous/synchronous communication)

*Proficiency level: B1 (Integrator)*

**c) Audience Response System (ARS):**

Use ARS to ask for feedback and to check understanding.
Tool suggestions see: Student response approach (link to item “Student response approach”)

*Proficiency level: B2 (Expert)*

Ad 2) - WHAT

**d) Read and Write for Google Chrome:**

Reads a written text.

*Proficiency level: Beginner*

**e) Voice Dream Reader:**

Students can use this tool to better read or listen to handouts.

*Proficiency level: Beginner*

**f) Popplet:**

Using digital graphic organizers to brainstorm and organize information and use multimodal elements (graphics, audio) to illustrate the content.

*Proficiency level: Integrator*

**g) Screencastify:**

Digital tool to record the screen, add information/questions and share it with others; students could use the learning material whenever they want.

*Proficiency level: Expert*

Ad 3 – HOW

**h) Voicethread:**

Is a media player that offers an interactive discussion space; upload documents or pictures, record comments and add questions; teachers and students can present the content in an interactive way.

*Proficiency level: Expert*

**i) Pictochart:**

Use tools like Pictochart, which is a visual content maker, to present learnings in different ways.

*Proficiency level: Integrator*

ℹ — More information
UDL guidelines

The guidelines are explained by Center Director David Rose on the video:
https://youtu.be/wVTm8vQRvNc

# Motivation-Bots

September 14, 2022
Categories: AI virtual assistants for personalisation
Tags: Innovator

Artificial intelligence could be used to personalise learning. Here is an example of how the support could be developed to foster the motivation.
Motivational bots can help students achieve their learning goals by praising and encouraging them. With the goal of promoting student retention and preventing dropouts, motivational bots can help alleviate typical activity problems in courses or during the semester.
The motivational bots can be implemented in learning management system as a plugin or can be combined with gamified elements, where the progress and participation ca be monitored (Raunig, 2020).

ℹ — More information
Source:
Raunig, M. (2020). Künstliche Interaktionspartner*innen an Hochschulen. BoD-Books on Demand.

Fine more:
Talk “Bots in der Lehre” an der RWTH Aachen – Online By Nature (german text)

# Offering choice

September 14, 2022
Categories: Individual learning paths
Tags: Integrator

Providing students with reasonable number of choices for the content that they learn or the tasks that they can complete leads to increases in autonomy and therefore the learners are more motivated for learning and performing tasks with better results.
They can choose to engage in the task themselves, for some personal interests and motivations. When students choose their topic or select how to present their work, they are more likely to take ownership over their work and/or feel confident demonstrating their knowledge. To maximize the benefits, teachers should offer students a limited number of options, too many choices can overwhelm the students.



## Tips - how to offer a choice

- → Assign students to complete five out of ten potential homework problems
- → Create a short list of project topics and let students select which one they want to pursue
- → Provide a handful of different options for students to present their work - e.g., essay, presentation, blog post, etc. and a tool (digital realisation) of the chosen option
- → Provide some choice in the questions students answer on assessments (e.g., answer 15 out of 20 items, choose between different question types)
- → Present the choice-making process as part of the assignment — dedicate time for students to research potential topic options, and help students make connections between topics and their own values

(Robinson, n.d.)

ℹ — More information
Source:
Robinson, C. (n.d.). Does offering students a choice in assignments lead to greater engagement?. Retrieved September 14, 2022, from https://researchmap.digitalpromise.org/ask_a_researcher/offering-students-choice-assignments-lead-greater-engagement/reater-engagement/

# One-minute paper

September 14, 2022
Categories: Engaging learners in synchronous sessions
Tags: Integrator

The method “One-minute paper” summarises an important question after the teaching session.

- → What was the most important concept of this lecture?
- → What was the most difficult point of this lecture?

Students get a minute or two to think about the topic and a minute to write the answer.

## Implementation

- → MS Teams

Create an open-ended (text) question type in MS Forms to share your question the students.

- → Moodle

Create an open question with the activity Feedback.

In the activity, set the time until when you will accept the answers, e.g. until the end of the teaching session or maximum 5 minutes after the teaching session.

The educators can use the answers gotten from the students as feedback for reflecting the session.

🧰 — Tools
**MS Forms:**
Introduction to MS Forms
Create a form with Microsoft Forms

**Moodle:**
Activity: Feedback or other similar activities from other LMS

# Promoting discussion and dialogue

September 14, 2022
Categories: Fostering creativity, criticality
Tags: Integrator

Discussions and guided dialogues are a good way to activate learners and foster their creative engagement with a subject matter. During the exchange of opinions, students learn to open up to other point of views, to actively listen to each other and to express themselves. Use methods or tools of dialogue and discussion to help students to develop transversal skills and work together to solve complex problems.

— Tools

**Kialo**
Platform for online discussions and collaborative debates. It enables students to demonstrate their knowledge in discussions, to form and express their own opinions and to consolidate what they have learned.

**Slido**
Real-time poll

**Mentimeter**
Real-time poll

# Peer feedback activities

September 5, 2022
Categories: Engaging learners in asynchronous sessions
Tags: Integrator

Peer assessment is an assessment method in which students actively participate and evaluate the submissions of their peers (possibly their own). If all participants work on the same task, the whole process is comparable and at the end the participants can generate or receive constructive feedback.
The assessment process is carried out according to predefined criteria and an objective procedure is conducive.

Advantages:

- → Participants take a close look at their own work and the performance of their colleagues.
- → The participants understand the assessment criteria better.
- → Participants learn to formulate and accept critical feedback.
- → It enables the participants to learn better by recognising the weaknesses of their peers
- → The participants train their judgement and responsibility.

— Tools
Workshop activity in Moodle

— More information
- There is a peer assessment activity (workshop) in Moodle. You define the assessment sheets and you can choose from four different formats.
- Students can share written work, videos, presentations or other assignments for mutual feedback. Providing feedback expectations or a rubric is helpful.

# Same and different

September 5, 2022
Categories: Icebreaker activities
Tags: Beginner, Integrator

The learners get to know each other through commonalities in a live online session or get to know each other even better in an existing team and improve communication (Symonds, 2022).
Here briefly the activity steps:

- → Divide the learners into groups of 3.
- → Each group should make a list of interesting commonalities (avoid general ones like gender etc.!).
- → In addition, have each learner find a uniqueness about themselves and write it down.
- → There will be 5 minutes for this task.
- → After the 5 minutes, each team shows their list/results to everyone else on an online whiteboard (Padlet, Lino).

(Symonds, 2022)

💼 — Tools
Padlet

Lino

ℹ️ — More information
Source: **Symonds, V. (2022, July 22)**. *21 Free Fun IceBreakers for Online Teaching, Students & Virtual and Remote Teams*. https://symondsresearch.com/icebreakers-for-online-teaching/

# Story creating

September 5, 2022
Categories: Narrative methods
Tags: Expert

Engaging the learners with an activity in which they create the stories. The learners develop stories from tasks, exercises, or transfer the practice experience in the form of a story. It is possible to use the learning content itself and transfer it to a concrete application in narrative form (FH Oberösterreich, 2021).

— Tools

**Planing stories:**

- StoryboardThat
- Wisemapping
- Storyline Creator

**Scrollytelling-Tools:**

- Storyform
- Shorthand
- Shorthand Social

— More information

Source: Thier, K. . (2021, 18. October). Storytelling – Vortrag von Dr. Karin Thier . YouTube. https://www.youtube.com/watch?v=RS_4M8iUfPI

# Accessible visual presentation of text

September 5, 2022
Categories: Creating accessible and inclusive content
Tags: Integrator

The visual presentation of blocks of text is presented in such a manner that the layout does not interfere its readability.
It can happen that people with some cognitive, language and learning disabilities and some low vision users cannot perceive the text and/or lose their reading place if the text is presented in a manner that is difficult for them to read.
It is necessary that:

- → Foreground and background colours can be selected by the user.
- → Width is no more than 80 characters or glyphs.
- → Text is not justified (aligned to both the left and the right margins).
- → Line spacing (leading) is at least space-and-a-half within paragraphs, and paragraph spacing is at least 1.5 times larger than the line spacing.
- → Text can be resized without assistive technology up to 200 percent in a way that does not require the user to scroll horizontally to read a line of text on a full-screen window.

ℹ — More information
Source: **W3C, n.d.:***Understanding Success Criterion 1.4.8: Visual Presentation*.https://www.w3.org/WAI/WCAG21/Understanding/visual-presentation.html .

# Images of text

September 1, 2022
Categories: Creating accessible and inclusive content
Tags: Expert

In some cases, it is possible to use images of text for visualisation, for instance where a particular presentation of text is essential to provide the information, for instance type samples, logotypes, branding, charts, screenshots and diagrams, etc. Images of text may also be used in order to use a particular font that is either not widely deployed or which the author doesn't have the right to redistribute (W3C, n.d.).

Below is an example of "images of text" and "common text".

> *All that we are is the result of what we have thought. What we think we become.*
>
> *Buddha*

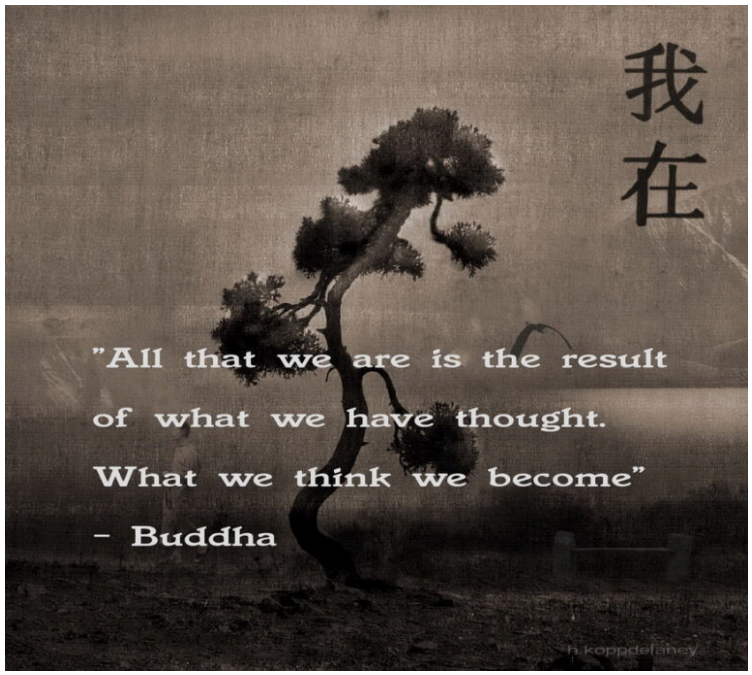



Image: "Buddha Quote 6" by h.koppdelaney is licensed under CC BY-ND 2.0.

## Tips

- → It is advisable if an author can use text to achieve the same visual effect, s/he should present the information as text rather than using an image.
- → If for the reasons mentioned above, the author cannot format the text to get the same effect, then an image of text can be used.

- → When using images of text to achieve desired visual presentation, it is important to consider that some persons will need adaptations to be able to receive the information:

- text in a particular font size
- foreground and background colour
- font family
- line spacing or alignment to be able to receive the information from the image

(W3C, n.d.)

ℹ — More information
Source: **W3C, n.d.:** *Understanding Success Criterion 1.4.5: Images of Text*. https://www.w3.org/WAI/WCAG21/Understanding/images-of-text.html#dfn-image-of-text .

# Use of colours

August 31, 2022
Categories: Creating accessible and inclusive content
Tags: Integrator

The colour is an important factor in the creation of web content as it contributes to its appearance, usability and accessibility. However, some users with impaired vision, have difficulty perceiving colours.
It is important to ensure that colour is not the only visual means of delivering information, indicating an action, prompting a response or distinguishing a visual element. It advisable to supplement the information the colour transmit, with some other visual means, for instance a textual description, images, icons or other highlights and contrasts (W3C, n.d.).

— Tools
**Vischeck:**
http://www.vischeck.com/
Vischeck is a way of showing you what things look like to someone who is color blind.

**AWARE Color Laboratory:**
http://colorlab.wickline.org/colorblind/colorlab/

— More information
Source: **W3C, n.d.:** *Understanding Success Criterion 1.4.1: Use of Color*.
https://www.w3.org/WAI/WCAG21/Understanding/use-of-color.html .

Find more:
Wikipedia: Color Blindness

# Social robot

August 29, 2022
Categories: AI technology in supporting students
Tags: Innovator

Supporting autistic children in learning and applying skills in one setting (e.g. in speech therapy) and transferring them successfully to another relevant setting or situation (e.g. home) is a great challenge and requires special education stuff team (Vuorikari et. al, 2020).

Near-future scenario

The new robot assistant is trained to work with children diagnosed with ASD* and helps to increase the attention and engagement of a child who follow mainstream education. At the same time, it reduces anxiety and disruptive behaviours. It can also help situations in the classroom by mediating between the child and others, if needed (Vuorikari et. al, 2020).

Main function

The pedagogically-oriented interventions are at an early development stage but the main function is focusing on the robot in assisting and supporting the child with ASD* with social and emotional skills, helping them to stay focused on the working task (Vuorikari et. al, 2020).

*Autism Spectrum Disorder

ℹ — More information
Source:
**Vuorikari, R., Punie, Y. and Cabrera Giraldez, M. (2020):** Emerging technologies and the teaching profession. Publications Office of the European Union.
https://publications.jrc.ec.europa.eu/repository/handle/JRC120183 .

**Existing applications:**
In-home use of socially assistive robots for children on the autism spectrum:
Helping children with Autism grow (Autism Spectrum Disorder) | Science Nation – YouTube

# Inclusive space for the students

August 29, 2022
Categories: Inclusion
Tags: Integrator

An inclusive space for students is a virtual space, a forum or a channel where the students feel invited to interact and communicate with each other and with an educator. This space, a get together channel or forum should be the place where students interaction goes beyond the subject content, it is a welcoming place, where learners feel comfortable to find information and interact with their peers. The educator can indicate how much s/he will be or will not be involved in their social spaces.

ℹ — More information
Forum of an Learning Management System (LMS) or a Channel in MS Teams, Zoom or other conferencing platform.

# E-Communication variety

August 25, 2022
Categories: Inclusion
Tags: Integrator

Effective e-communication is an important means of securing accessibility and inclusion of learners in their desired learning worlds. A variety of ways of e-communication should therefore be provided for learners which should be based on educators' e-communication policy. This policy informs learners about the educators' availability with respect to time schedules, physical spaces and virtual spaces and channels.

Special attention should be given to the chosen media: commercial services (which require user registration) versus open systems/systems provided by the higher education institution; security and privacy aspects.

An e-communication policy gives the students information:

- → When are you available?
- → How can the students contact you personally?
- → Through which channels?

Example

You can contact me with _____ (e-mail, social media, text...)
I will respond to (e-mail, chat, messages) within _____ hours, except on _____ or between _____ (hours)
I am available online (e-mail, Ms Teams, Zoom, Twitter...) _____ on _____ days.
Individual appointments (physical, Zoom, Chat, ...) _____ are possible on _____ (day /time)
I accept / do not accept Facebook, LinkedIn ... friend requests (until graduation).

ℹ — More information
Finde more: E-Communication and Guidelines

# Text – resize and spacing

August 13, 2022
Categories: Creating accessible and inclusive content
Tags: Integrator

Resize text

Text can be resized without assistive technology up to 200 percent without loss of content or functionality. Ensure that visually rendered text, including text-based controls (text characters that have been displayed so that they can be seen ) can be scaled successfully so that it can be read directly by people with mild visual disabilities, without requiring the use of assistive technology such as a screen magnifier. Users may benefit from scaling all content on the Web page, but text is most critical.
Images of text do not scale as well as text because they tend to pixelate, and therefore we suggest using text wherever possible. It is also harder to change foreground and background contrast and colour combinations for images of text, which are necessary for some users.
Resources are for information purposes only, no endorsement implied (W3C, n.d.).

Spacing

Ensure that content is still readable and operable when users override text spacing, set by the author, to enhance their reading experience.
In content implemented using markup languages that support the following text style properties, no loss of content or functionality occurs by setting all of the following and by changing no other style property:

- → Line height (line spacing) to at least 1.5 times the font size;
- → Spacing following paragraphs to at least 2 times the font size;
- → Letter spacing (tracking) to at least 0.12 times the font size;
- → Word spacing to at least 0.16 times the font size.

(W3C, n.d.)

ℹ — More information
Source:
**W3C, n.d.:** *Understanding Success Criterion 1.4.12: Text Spacing*.
https://www.w3.org/WAI/WCAG21/Understanding/text-spacing.html .

Finde more:
Cascading Style Sheets:
https://www.w3.org/TR/CSS2/fonts.html

CSS 2 Font Size Property:
https://www.w3.org/TR/CSS2/fonts.html#font-size-props

# Audio control

August 13, 2022
Categories: Creating accessible and inclusive content
Tags: Expert

Persons who use screen reading software can find difficult to hear the speech output if there is other audio playing at the same time, especially if the screen reader's speech output is controlled with the same volume control as the sound playing in background (W3C, n.d.).



## Tips

- → Therefore, it is important that the user can turn off the background sound.
- Having control of the volume means being able to reduce its volume to zero.
- → If any audio on a Web page plays automatically for more than 3 seconds, it has to have available mechanism to pause or stop the audio, or a mechanism to control audio volume independently from the overall system volume level.
- → It is advisable that the user initiate the sound after they reach the page (especially if they last more than 3 seconds), rather than to require the user to stop the sound after they land on the page.
- Playing audio automatically when landing on a page may affect a screen reader user's ability to find the mechanism to stop it because they navigate by listening and automatically started sounds might interfere with that navigation.

(W3C, n.d.)

ℹ — More information
Source: **W3C, n.d.:** *Understanding Success Criterion 1.4.2: Audio Control*. https://www.w3.org/WAI/WCAG21/Understanding/audio-control.html .

# Colour contrast

August 13, 2022
Categories: Creating accessible and inclusive content
Tags: Expert

People with low vision often have difficulty reading text that does not contrast with its background. This can be exacerbated if the person has a colour vision deficiency that lowers the contrast even further (W3C, n.d.).

## Tips

- → Providing a minimum luminance contrast ratio between the text and its background can make the text more readable even if the person does not see the full range of colours.
- It also works for the rare individuals who see no colour.
- → The visual presentation of text and images of text has a contrast ratio of at least 4.5:1.
- → Large-scale text and images of large-scale text have a contrast ratio of at least 3:1.

(W3C, n.d.)

— Tools
**Contrast checker:**
https://webaim.org/resources/contrastchecker/
**Snook:**
https://snook.ca/technical/colour_contrast/colour.html
**Contrast ratio calculator:**
https://www.msfw.com/Services/ContrastRatioCalculator

— More information
Source: **W3C, n.d.:** *1.4.3 Contrast (Minimum) Level AA*. https://www.w3.org/WAI/WCAG21/quickref/?showtechniques=128%2C124#contrast-minimum .

# Adaptable content

August 13, 2022
Categories: Creating accessible and inclusive content
Tags: Expert

Creating the content that can be presented in different ways (for example simpler layout) without losing information or structure (W3C, n.d.).



## Tips

- → Ensure that information and relationships that are implied by visual or auditory formatting are preserved when the presentation format changes.
- For example, the presentation format changes when the content is read by a screen reader or when a user style sheet is substituted for the style sheet provided by the author.
- → When the sequence in which content is presented affects its meaning, a correct reading sequence can be programmatically determined.
- → It is important that instructions provided for understanding and operating content do not rely solely on sensory characteristics of components such as shape, colour, size, visual location, orientation, or sound.
- → Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is essential.

(W3C, n.d.)

ℹ — More information
Source:
**W3C, n.d.:** *How to Meet WCAG (Quickref Reference), Guideline 1.3 – Adaptable*.
https://www.w3.org/WAI/WCAG21/quickref/?showtechniques=128%2C124#adaptable .

# Audio / video content

August 13, 2022
Categories: Creating accessible and inclusive content
Tags: Expert

To make audio and/or video content inclusive and accessible it is necessary to provide descriptions of the whole content or fragmentary. It is also important to add captions and subtitles to video content. Captions not only include dialogue, but also identify who is speaking and notate sound effects and other significant audio (W3C, n.d.).

Sign language

If you are making videos consider providing a sign language interpretation. The sign language interpretation provides the ability for intonation, emotion and other audio information and therefore offers richer and more equivalent access to synchronized media (W3C, n.d.).

Audio control

If any audio on a Web page plays automatically for more than 3 seconds, it is important to provide a mechanism to pause or stop the audio, or a mechanism to control audio volume independently from the overall system volume level (W3C, n.d.).

— Tools
**Create subtitles:**
matesub – Create better subtitles, faster

**YouTube support, Use automatic captioning:**
Use automatic captioning – YouTube Help (google.com)

— More information
Source:
**W3C, n.d.:** How to Meet WCAG (Quickref Reference), Audio-only and Video-only (Prerecorded). https://www.w3.org/WAI/WCAG21/quickref/?showtechniques=124%2C128%2C129%2C121#principle1 .

# Text-based content

August 13, 2022
Categories: Creating accessible and inclusive content
Tags: Expert, Integrator

Some people will need to use assistive technology in order to be able to get the information from the text-based content. If the text-based content contains the elements that are non-text content* it is advisable to provide text alternatives so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.

*Non-text content is “any content that is not a sequence of characters that can be programmatically determined or where the sequence is not expressing something in human language”
(W3C, n.d.)

🧰 — Tools

**Integrator Level**

Text-to-speech

- ReadSpeaker
- Text-to-Speech

**Expert Level**

Online Braille generator

- Online Braille Generator
- Braille Translator

ℹ — More information

Source:
**W3C, (n.d.):** *Understanding Success Criterion 1.1.1: Non-text Content.* https://www.w3.org/WAI/WCAG21/Understanding/non-text-content .

# The case of hearing loss in regular classroom

August 13, 2022
Categories: AI technology in supporting students
Tags: Innovator

**Near-future scenario:** The educator does not need to have a degree in special needs education, in order to create a fair, inclusive atmosphere where learning can flourish, even if one of the students is diagnosed with hearing loss or other impairments. The educational institution provides an opportunity to the interested educators to participate in a mentoring programme to teach hearing impaired students.
The innovative technologies adapted for hearing loss and impaired students enables the connection of hearing aids to smartphones wirelessly. Using this technology, the sounds from the environment can be classified as “background noise” or “important noise” and so support the learners with hearing loss in distinguishing the information and encourage them to fully participate in the learning process with other learners (Vuorikari, R. et. al, 2020).

ℹ — More information
Source:
**Vuorikari, R., Punie, Y. and Cabrera Giraldez, M. (2020):** Emerging technologies and the teaching profession. Publications Office of the European Union.
https://publications.jrc.ec.europa.eu/repository/handle/JRC120183 .

EU project EweDraw: multisensory games for teaching and learning arithmetical and geometrical concepts with primary school children, suitable for visually im-paired children and those with dyslexia: https://www.wedraw.eu/

# Preventing (cyber)bullying and conflict resolution skills

August 13, 2022
Categories: AI technology in supporting students
Tags: Innovator

Bullying is aggressive and typically repeated behaviour or action that is intended to cause harm, fear or distress to another individual, including physical, psychological, social or academic harm, harm to the individual's reputation or harm to the individual's property. Cyber-bullying is bullying by using different electronic means to impersonate another person as the author of content or messages posted on the internet or to communicate, compromise – embarresse or incriminate – material about someone and posting such material on internet that may be accessed by one or more individuals.

In future scenarios, cyber-bullying prevention may be supported by chatbot software which is embedded into computer-based interfaces. Such chatbots could detect words and tones reflecting violence in discussions and message communications, for example, anger, disgust, fear, sadness, aggressiveness, and racist slurs both in groups and among individuals. If a bullying incident occurs, in a game-style, the chatbot software prompts guided chat between those involved in bullying as perpetrators and victims, as well as several classmates, challenging them to support the victim with the aim of ending the bullying. Educators, principals or educational guidance counsellors are involved in mediation, too, which in many cases also involves parents. (Vuorikari, R., et al., 2020).

ℹ — More information
Source:
**Vuorikari, R., Punie, Y. and Cabrera Giraldez, M. (2020):** *Emerging technologies and the teaching profession.* Publications Office of the European Union.
https://publications.jrc.ec.europa.eu/repository/handle/JRC120183 .

Project example:
ENCASE (Enhancing security and privacy in the Social web)

# Provide additional support for text-based content

August 13, 2022
Categories: Special support
Tags: Integrator

It is advisable to provide support for different ways of understanding the content. Since only text-based content can be overwhelming for some learners. If possible, provide extra help and support.



## Tips

- → graphics
- → summaries of long documents
- → icons with headings and links, and
- → alternatives for numbers
- → short audio explanations
- → explain choices to help the students successfully complete their tasks
- → provide a different communication channel so that they can contact you for more information

# Help learners focus

August 13, 2022
Categories: Special support
Tags: Integrator

Distraction can be a big problem for some learners in completing the tasks. Once users become distracted, they may find it difficult to remember what they were doing. Then they can no longer complete their task. This is especially problematic for users with both impaired attention and impaired memory and other disorders.

## Tips

- → Avoid using any content or elements that distract users or interrupt them.
- → Provide clear headings.
- → With the navigation of the LMS the students can be reoriented and refocused if they lose focus.
- → It is also helpful to additionally explain what information they may need to prepare at the beginning of the task, so that they can collect all required information before starting.

ℹ — More information
Find more: 8 Focus Challenges of Distance Learning

# Content on hover

August 2, 2022
Categories: Creating accessible and inclusive content
Tags: Expert

The content on hover is the content that appears and disappears in coordination with keyboard focus or mouse pointer. This activity can sometimes cause accessibility issues, such as:

- the user may not have intended to trigger the interaction
- the user may not know new content has appeared
- the new content may interfere with a user's ability to do a task

Using the content on hover can be accessible if it is dismissible, hoverable or persitant

**Dismissible**

A mechanism is available to dismiss the additional content without moving pointer hover or keyboard focus unless the additional content communicates an input error or does not obscure or replace other content.

**Hoverable**

If pointer hover can trigger the additional content, then the pointer can be moved over the additional content without the additional content disappearing.

**Persistent**

The additional content remains visible until the hover or focus trigger is removed, the user dismisses it, or its information is no longer valid.

+ − More information
Find more: Understanding Success Criterion 1.4.13: Content on Hover or Focus (w3.org)

# Brainstorming

July 20, 2022
Categories: Collaborative activities in (a)synchronous sessions
Tags: Expert, Integrator

Brainstorming is an activity that enables students to think freely and creatively when trying to come up with ideas. This approach can shift perspective, facilitate team collaboration and refine initial ideas into something even better. It is possible to perform this activity in an online setting: the students are divided in groups, for instance in breakout rooms and are invited to post their ideas on a digital whiteboard.

— Tools

**Integrator**
Whiteboard in MS Teams, or in learning management system

**Expert**
Miro
Padlet
MURAL
RetroTool