

WP3

Learning courses

Methodological Guidelines

By



Learningdigital

Learning comes first

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HOW TO USE THIS GUIDE

We wish this guide to be informative by providing you with all the necessary information to develop the e-learning course in an effective manner, ensuring its harmonisation with other courses composing the ENTRnet learning offer. It is of utmost importance that the structure, the content, the activities, assessments and overall pedagogical approach are consistent across the various courses.

At the same time, this guide as well as to be a working tool, allowing exchange and interaction among the extended team of professionals involved in the development of the modules.

Under this perspective, we invite you to use this guide to interact with staff from Learningdigital, as coordinator of this deliverable, as well as with other partners of the project.

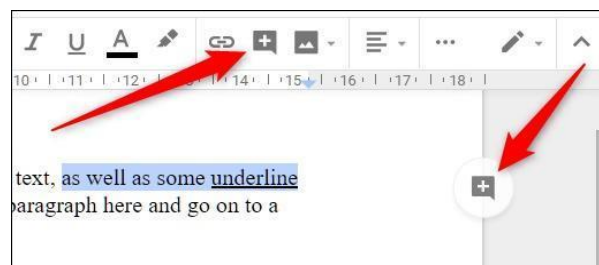
In order to do so, we suggest to use the functionality “comment” and tag us or partners, to exchange views and feedback, or seek pedagogical or technical assistance and advice, during any phase of the modules’ production.

The process is simple:

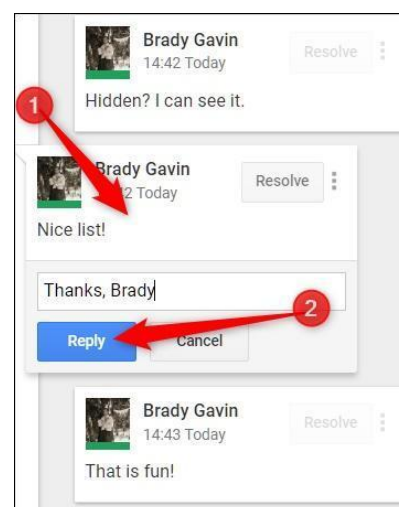
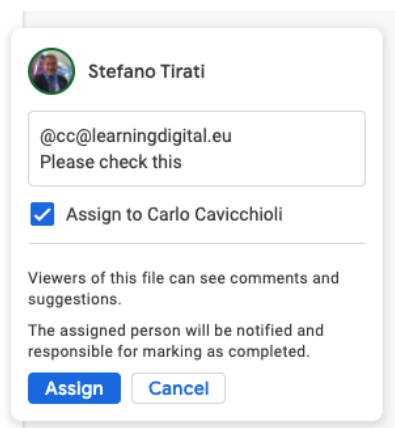
- select text
- click on “Add comment” button
- tag person/s, by “@” + email address
- write comment and save

Our references:

- Carlo Cavicchioli, cc@learningdigital.eu
- Stefano Tirati, st@learningdigital.eu



Here is an example of tagging.



OVERALL AIMS

The learning courses are aimed at promoting effective training on entrepreneurship, building upon ENTRECOMP competence framework, among adult education providers, and thus:

- Enable adult education providers to integrate entrepreneurial education in their training offer
- Empower trainers and educators to deliver effective entrepreneurial education
- Promote key competencies on entrepreneurship among adult learners

The outcomes of this action of the project, under WP3, specifically consist in:

1. One E-learning platform open to the European Adult Education community on entrepreneurial education
2. Six Learning courses on six multiple dimensions, relevant to entrepreneurial education

Specific objectives

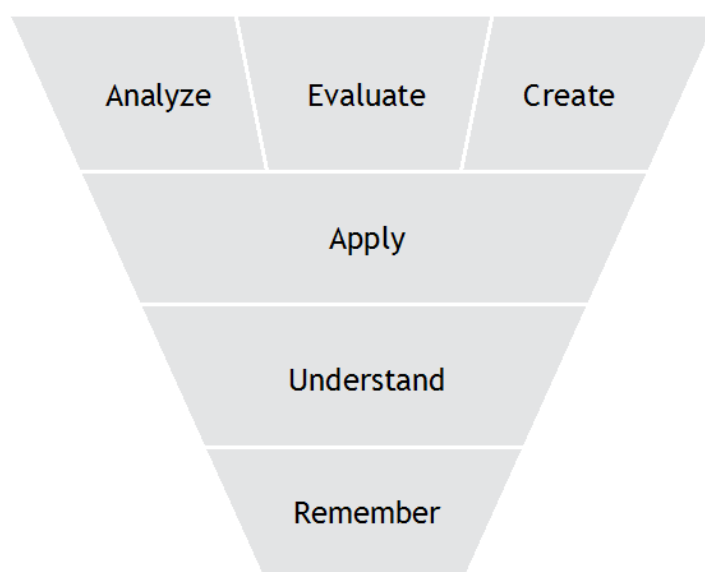
The ENTRnet project foresees the development of the following e-learning courses:

- Intrapreneurship
- Young entrepreneurship
- Green entrepreneurship
- Digital entrepreneurship
- Co-operative entrepreneurship
- Innovation and entrepreneurship

Target groups

The learning courses foresee 2 main target groups:

1. Direct beneficiaries are trainers and educators from adult education providers, being responsible to adopt and use the ENTRnet learning platform and courses;
2. Indirect beneficiaries or end users are adult learners, who may range from young adults (from 16 years old upwards) to active ageing population.



METHODOLOGY

Educational approach

The module's structure and the overall description of learning objectives, activities and assessments, is inspired by the Bloom's taxonomy and its three dimensions:

- Remember
- Understand
- Apply

The overall objective is to guide learners through a learning process which promotes not only theoretical knowledge but also the acquisition of skills and competencies, to be transposed into activities and behaviours.

As detailed below, we adopt a micro-learning approach, where the learning path is articulated in modules, content and activities are conceived as small sized learning objects, and the learner is exposed to a variety of educational resources, which are easy to access and to complete.

Learning outcomes

When describing the learning outcomes, make sure you use active terms such as:
“at the end of this module the learner is capable of ...”.

Given the relevance of EntreComp, we invite you to identify and specify in each module references to this competence framework, as well as, whenever applicable, to other European frameworks, namely:

- ENTRECOMP
- DIGCOMP
- GREENCOMP

STRUCTURE OF THE COURSE

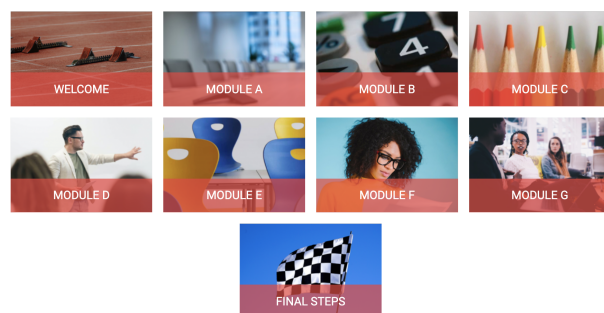
Each e-learning course has an expected duration of 5 notional learning hours and it is articulated in the following components, which in principle are accessed and completed in sequential order:

- Introduction / Welcome
- Module A
- Module B
- Module C (etc.)
- Conclusion / Final steps

Here you may see an example of a graphic representation of a course, composed of overall 9 sections: introduction/welcome, 7 modules, conclusion / final steps.

Introduction/Welcome

The introduction of the course should be composed as follows.



SECTION	SUB-SECTION	DESCRIPTION	DETAILS
INTRODUCTION	Course presentation	Text presenting the course <ul style="list-style-type: none"> - course description - learning outcomes - Reference to EntreComp competence framework - Reference to other competence frameworks (if applicable) 	10-15 lines text course image 800 x 600 px
		Video presenting the course (same content as above)	Duration 1-2 min. or [audio] slides
	Trainers' corner	Trainers' guide at course level Introduce resources available in the course and how to use them with learners, description of delivery methods (slides accessible only to trainers and educators)	Slides 3-10 slides
	Test	Self-assessment to evaluate prior knowledge, attitudes, predispositions	Questionnaire Word / Google Doc 10-20 multiple choice questions

Module structure

Building from Bloom's taxonomy, each e-learning module is articulated in the following sections:

- Introduction (remember)
- Trainers' corner
- Exploration (understand)
- Action (apply)
- Test (evaluate)

Based on the learning outcomes and complexity of your course, you are invited to develop different modules, which could be around 3 to 5 in total.

Please find below the structure of each module: you are invited to make sure that in each module there is at least 1 learning object as described in the structure below. Please note that you may find additional details on learning objects in the annexes.

SECTION	SUB-SECTION	DESCRIPTION	DETAILS
MODULE	Module presentation	Text presenting the module <ul style="list-style-type: none"> - module description - learning outcomes - Reference to EntreComp competence framework - Reference to other competence frameworks (if applicable) 	5-10 lines text module image 800 x 600 px
		Video presenting the module (same content as above)	Short video 1-2 min. or [audio] slides
	Trainers' corner	Trainers' guide at module level Introduce resources available in the module and how to use them with learners, description of delivery methods (slides accessible only to trainers and educators) Trainers' guide at module level may include: <ul style="list-style-type: none"> - Interactive session with learners: you suggest to trainers how to organise a session with their learners - Interactive session with trainers: : you suggest how to organise a session to train the trainers 	Slides 2-5 slides
	Explore	Videos explaining content of the module <ul style="list-style-type: none"> - micro-learning: split content in order to have one video for each specific content <p>You may use different typologies of videos</p> <ul style="list-style-type: none"> - Record a speaker - Virtual avatar commenting slides - Existing internal / external videos (ensure creative common licence) <p>Formative evaluation: you may develop 1-3 questions for each video, to focus learners' attention on key messages (use separate Google Doc).</p>	Duration 3-5 min. per micro-learning video
		Ice-breaking activities aimed at stimulating interest by	H5P game-based

		<p>game-based simple exercises or activities such as</p> <ul style="list-style-type: none"> - drag & drop text or images - memory game - crossword - find the words 	activity
		<p>Slides explaining content of the module</p> <ul style="list-style-type: none"> - micro-learning: split content in order to have one PPT for each specific content <p>In order to produce audio slides:</p> <ul style="list-style-type: none"> - use keywords and short sentences, images, avoid overcharged / too much text - under each slide, within the “speaker’s note”, add max 2-3 lines of text explaining the slide <p>Formative evaluation: you may develop 1-3 questions for each PPT, to focus learners’ attention on key messages (add additional slides with questions).</p>	<p>Powerpoint or Google Slides using project template</p> <p>5-15 slides per micro-learning PPT</p>
		<p>Reading materials explaining content of the module</p> <ul style="list-style-type: none"> - micro-learning: split content in order to have one Document for each specific content <p>You may use different typologies of reading materials</p> <ul style="list-style-type: none"> - Document using project template - Existing internal / external PDF, articles, documents (ensure creative common licence) 	<p>Word or Google Doc using project template</p> <p>2-10 pages per micro-learning document</p>
	Apply	<p>Hands-on activity aimed at guiding learners to apply knowledge, try to understand and solve real problems, transpose learning in concrete behaviours.</p> <p>Examples of hands-on activities include:</p> <ul style="list-style-type: none"> - checklist - template to fill-in (as a canva or a form) - case study to analyse <p>Formative evaluation: in general, hands-on activities are conceived as “assignments” where learner is given instructions and asked to upload filled-in template or complete online form</p>	<p>Word or Google Doc using project template</p> <p>1-3 pages per hands-on activity</p>
	Test	<p>Questionnaire for a summative evaluation aimed at assessing main knowledge, skills and/or competencies focused by the module.</p> <p>Learning path: access to the next module is conditioned by completion of this test.</p>	<p>Word or Google Doc with 10-20 questions (different type of closed questions allowed)</p>

Conclusions / Final steps

Once completed all modules the learner is granted access to the closing section of the course, which has the following composants.

SECTION	SUB-SECTION	DESCRIPTION	DETAILS
Conclusions / Final steps	Test	Self-assessment , the same used in the first section, to allow evaluation of improvements gained by completing the course, in terms of knowledge, attitudes, predispositions.	Questionnaire Word / Google Doc 10-20 multiple choice questions
	Test	Questionnaire , for a final summative evaluation, aimed at evaluating main knowledge, skills and/or competencies focused by the course. You are invited to select and use questions from the modules. Learning path: access to the course certificate is conditioned by completion of this test.	Word or Google Doc with 20-40 questions (different type of closed questions allowed)
	Certificate	Certificate , automatically generated by the LMS, attesting completion of the course.	Provided by the system
	Evaluation	Survey measuring users' satisfaction with the learning process against a set of criteria, including usability, relevance, effectiveness, innovativeness.	Provided by the system

OPEN EDUCATIONAL RESOURCES

In the development of the open educational resources, as specified further below, it is important to consider the following:

- Open Educational Resources (OER) have to be ready-to-use by learners / end users;
- OER should be conceived as small and specific learning objects, enabling micro-learning;
- Differentiated educational materials allow learners to perform better, according to their own learning needs and styles

Trainers' guide

In order to support trainers and educators, at course level, and whenever applicable also at module level, we invite you to create a quick guide, specific for and accessible only by trainers and educators.

The trainers' guide introduces resources available in the course, how to best use OER with the learners, and suggests meaningful delivery methods to be adopted by teachers and trainers with their learners.

Since trainers and educators are our main target group, the trainers' guide is thus an essential component of our training courses, enabling an effective transfer and exploitation of our OER across the European community of Adult Education providers.

Multimedia

Learners and society in general are exposed to images, videos and audio and thus our learning materials should be based on videos, while slides should be accompanied by an audio explanation. Check out annexes to discover specific instructions.

H5P

H5P makes it easy to create interactive content by providing a range of content types for various needs. We selected the most appropriate for the modules, which are also relatively easy to set prepare. Check out annexes to discover specific instructions.

DELIVERY METHODS

We envisaged multiple delivery methods, enabling Adult Education providers and learners to choose from, according to their needs, characteristics and expectations.

Self-paced online learning

Courses are accessible by learners openly and can be completed as self-paced online learning. All OER are made available so that users will be able to register on the platform, start and complete learning in an autonomous manner.

Online courses moderated by trainers and educators

Adult Education providers wishing to do so, are able to invite learners to join online courses in groups, in order to monitor progress, shared dedicated ad hoc feedback to own learners. This is particularly useful when adopting so-called "hands-on activities", which may benefit from and be enriched by a joint reflection and analysis, among peers and/or with trainers and educators.

Hybrid courses moderated by trainers and educators

Adult Education providers may as well be using some of the OER in classroom settings, for example using a video to introduce a specific topic or activity, allowing then learners to access and complete additional resources online.

Interactive sessions for Learners and for Trainers

Within the scope of the ENTRnet initiative, it is envisaged to implement a series of online events/webinars with the following objectives:

- Introduce to trainers and educators specific courses, raising attention on specific topics of the course and stimulating horizontal cooperation among peers, both at national as well as at transnational level, including mobility opportunities
- Introduce to learners ENTRnet training offer, raising its awareness and attractiveness as well as launching transnational learning initiatives, such as hackathons, contests, peer learning

WORKFLOW

In order to ensure efficiency and effectiveness, the development and publication of e-learning modules should follow these steps.

WHO	WHAT	HOW	DETAILS
Partner	Define course and learning outcomes	Describe course overall objectives Define specific learning outcomes Populate Course Workflow Template Review with LMS admin	
Partner	Assign work to Content developer	Share and explain course guidelines	
Content developer	Develops first content release	Develop content following the agreed courses structure and guidelines Upload content on shared Google Drive	Template folder
Partner with LMS admin	Review	Analysis of content in cooperation with LMS admin Provide feedback to Content Developer	
Content developer	Develops second content release	Develop content following the agreed courses structure and guidelines Upload content on shared Google Drive	
Partner with	Review	Analysis of content in cooperation with LMS admin	

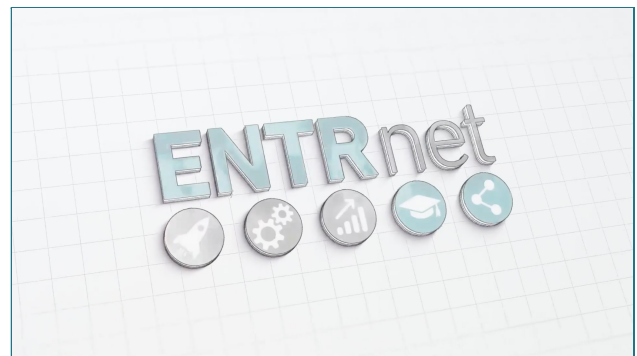
LMS admin		Provide feedback to Content Developer	
Content developer	Finalisation of content	Finalise content following the agreed courses structure and guidelines Upload content on shared Google Drive	
LMS admin	Publication	Editing content whenever applicable Assembling online activities Integration and restriced publication on LMS	
Partner	Test course	Pilot course with 10 learners Collection of structured feedback from learners via survey	
LMS	Finalisation	Apply changes, modifications, integrations Publicly open publication on LMS	

ANNEXES

Annex 1 - Videos

In general terms, we invite you to produce short videos, as detailed in course structure. You are also invited to deliver either:

- a finalised video, with post-production (you may use logo animation and/or shared Adobe Premiere project)
- a semi-finalised video, with speaker's editing accomplished, stating video title, keywords to appear (and when), images and graphics, (we will add intro / outro, background music, words/titles animations, project logo)



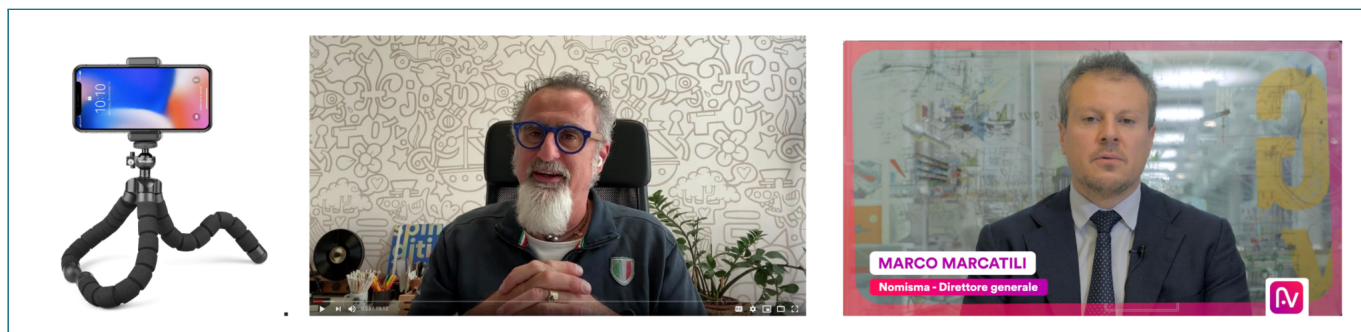
Learning videos can be of various types and origins, below we present 3 different typology of videos.

1. *Record a speaker with video camera or mobile phone*

If you plan to make "home made" videos, please follow these simple instructions:

- draft a list of questions, relevant to explain your content and stimulate curiosity
- make short clips, split the concepts in multiple videos;
- before starting each clip state the question you are going to answer
- start recording and wait a few seconds before start talking, to make editing and video cuts easier
- when you end recording, please use same attention, when you have finished your speech wait few seconds and then end recording, this helps us to have a good cut at the end
- keep the phone still, for example, by placing it on the desk; tripod is best but not necessary
- record half-body (preferably while standing), more or less as in the screenshot below;

- use a quiet room, try to eliminate as much as possible any background noises; eventually use earphones (only if you have bluetooth earphones)
- ensure good lighting, make sure you have the light source in front of you, not behind you



2. Virtual Avatar commentings slides

There are several online tools which allow videos to be obtained from slides and text (e.g. Synthesia).

The following elements are needed to make this type of video:

- Slides (PPT or Google Slides), use keywords and short sentences, images, avoid overcharged / too much text, allow some space for the avatar
- Under each slide, within the “speaker’s note”, add max 2-3 lines of text, explaining the slide



3. Existing internal / external videos

If you dispose or identify relevant existing video resources, you are more than welcomed to use them, subject to the following

- From within your organisation, please share on Drive the video in .mp4 format
- From the web, need to make sure we dispose written authorisation to use the video, for instance with an explicit licence (ex. creative commons); also in this case, it is preferable to download the original video file and share it on Drive in .mp4 format.

Annex 2 - H5P for videos and Ice-breakers

H5P allows different types of questions to be assembled into a single object, enriching them with multimedia elements and continuous interaction and feedback.



H5P offers various types of gamified activities and exercises you may choose from, to implement ice-breaking activities or to enrich other learning content, such as videos or slides presentations.

We present below a non exhaustive selection of examples, and invite you to check H5P official website.

Link to a demo: <https://h5p.org/column>

H5P Interactive video

Videos produced as described above can be further supplemented with interactive elements, such as questions, activities or additional information.



It is an HTML5-based interactive video content type allowing users to add multiple choice and fill in the blank questions, pop-up text and other types of interactions to their videos using only a web browser

The following elements are needed to make an interaction video:

- accessible link of the basic video (without restrictions)
- list of interactions you want to insert
- minutes of insertion points
- poster image (opt)
- text for subtitles or captions
- data required for each interaction (varying according to the type of interaction).

Link to a demo: <https://h5p.org/interactive-video>

Drag the Words

This is a very simple way to make and allows an activity which is 'physical', giving it a kinaesthetic characteristic that favours learning.

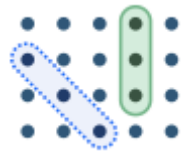
To build a drag the words activity you need to collect the following elements:



- Text or paragraph of 40 to 60 words
- Select 5 to max 10 words which are univocally located inside the text
- Highlight the words with * before and after, as below
 - *This is a very ***simple*** way to make and allows an ***activity*** which is 'physical', giving it a kinaesthetic ***characteristic*** that favours learning.*

Find the words

It is a word search activity that allows authors to create a list of words that will be drawn in a grid. The learners' task is to find and select the words in the grid.



To build a find the words game we need of only two elements:

- A short text for the task description
- A comma separated list of max 10 words

Link to a demo: <https://h5p.org/find-the-words>

Drag & drop

It is a mode that makes an activity more 'physical', giving it a kinaesthetic characteristic that favours learning.



To build a drag and drop activity you need to collect the following elements:

- Background image
- Drop zones
- Droppable elements (text or foto)
- Logical sequence and matching among droppable elements and drop zones

Link to a demo: <https://h5p.org/drag-and-drop>

Memory game

It is a very easy-to-do activity that allows the learner to recognize and remember concepts by a gallery of images.



To build a memory game activity we need the following elements:

- a certain number of pictures, example 6
- the corresponding set of images
- an audio file for each pair of images (optional)
- an optional short text that will pop up once the two matching cards are found.

Link to a demo: <https://h5p.org/memory-game>

Crossword

You can make a crossword game to fix concepts and guide some reasoning.



To build a crossword game we need of several elements:

- Clue that should point to the answer.
- Answer to the clue.
- Extra clues like text, image, audio or video.
- Overall solution word (opt)
- Background image

Link to a demo: <https://h5p.org/content-types/crossword>

Course presentation

It is a very effective way to animate a presentation as you may add interactivity to your slides by integrating multiple elements such as questions, videos, drag and drop activities, and more.



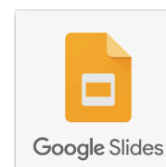
To build an H5P course presentation you need:

- Slides
- Closed questions

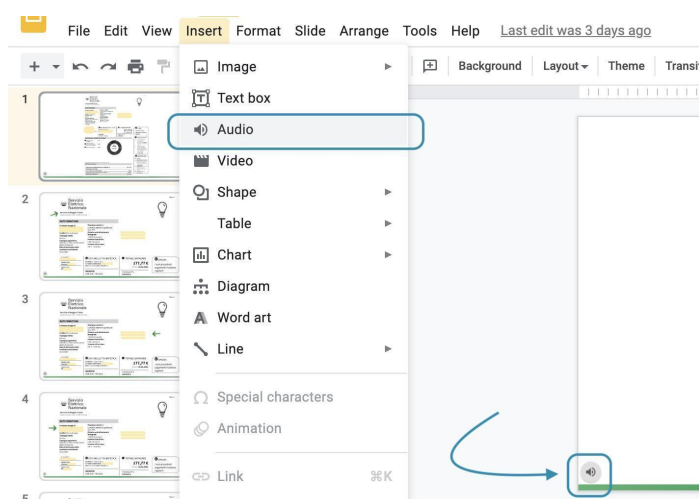
Annex 3 - Slides with audio

We recommend adopting the following instructions:

- Whenever possible, use the project template for slides
- On either PPT or Google Slides, use keywords and short sentences, images, avoid overcharged / too much text
- Under each slide, within the “speaker’s note”, add max 2-3 lines of text, explaining the slide



Audio files can be then generated using specific software (e.g. Speechelo), and added to the slides.



Audio files can be added directly to the powerpoint or google presentation slides, or added to the course presentation component of h5p.

Annex 4 - Self-assessment

This is an activity in which the user fills in a questionnaire to assess prior knowledge, skills, attitudes or predispositions.

Self-assessment is used before accessing the contents or the lessons, as well as afterwards, once completed the training, to assess improvement obtained by the training.

This is a series of questions that can be proposed for different reasons:

- to collect data without generating a score (no right or wrong answers)
- to check the level of preparation (yes right or wrong answers)

- to stimulate curiosity and interest in a fun way

Example of self-assessment questions, [click here](#)

Annex 5 - Hands-on activity

Hands-on activities are key at guiding learners to apply knowledge, try to understand and solve real problems, transpose learning in concrete behaviours. Examples of hands-on activities include:

- checklists
- template to fill-in (as a canva or a form)
- case study to analyse

Hands-on activities, thanks to trainers and educators feedback, provide for a formative evaluation where learner is given instructions and asked to upload filled-in template or complete online form.

Assignments

Conceived as “assignment”, you are invited to produce the following:

- Short instructions for the learners, to explain purpose and what they are expected to do
- Template in Word or PDF to be used / filled in by learners
- Criteria to be used for the evaluation

Case studies

Conceived as “assignment”, you are invited to produce the following:

- Short instructions for the learners, to explain purpose and what they are expected to do
- Slides / reading material in Word or PDF to describe concrete challenge / use case / problem be analysed by learners
- Questions to be answered / solutions to be found by learners

Annex 6 - Test for summative evaluation

The quiz is a tool that provides a wide set of question types and allows a very precise refinement of the learning assessment.



It should be carefully designed by choosing the most appropriate question types and providing timely information about the overall feedback and for each answer.

Typology of closed questions include:

- yes / no
- multiple choice with one correct answer
- multiple choice with more correct answers