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Digital & Entrepreneurial Skills  
for European teachers

# Digital and Multimedia MOOC guide



Editorial  
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Cantabria



LUT  
Lappeenranta  
University of Technology



# DIGITAL AND MULTIMEDIA MOOC GUIDE

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## Introduction. The e-DESK MOOC

As part of the e-Desk (Digital and Entrepreneurial Skills for European Teachers) project, an intervention co-funded by the European Union through the Erasmus+ program, a MOOC (Massive Open Online Course) was developed as part of the Digital Training.

Taking in mind that the COVID-19 not only forced us to change the way we used to learn and teach; this MOOC was building retaking also different pedagogical methodologies taking in mind this new way of living.

e-DESK is a hybrid university education, promoting these digital and business skills of teachers and students, since the pandemic helped to identify or assess the latent need to develop these skills that society demands so much and that must be put into practice for young people in the European Union, specially on the university field.

This document aims to be a guide on how to develop a MOOC course similar to the one that has been carried out through the MiriadaX platform (with two different editions <https://miriadax.net/>) during the implementation of the project, at the University of Cantabria Virtual Classroom (closed platform only available for the staff training for teachers for each partner <https://moodle.unican.es/>), FOI Learning Platform (that it's still open if you want to attend there our MOOC <https://learn.foi.hr/>) and also the contents can still be visited on NAU platform (<https://www.nau.edu.pt/en/course/digital-and-entrepreneurial-teachers-for-a-fast-changing-world/>).

The reader will also find images and examples on how this complete MOOC it's prepare to be replicated on any LMS platform and still continue offering the same quality materials. Also, we are going to try to show some statistical results within Annex I - BRIEF STATISTICAL ANALYSIS resulting from the first execution of this MOOC in the different platforms mention before. The information was collected not only when this first edition of the course had finished, but also while it was undergoing, and the insights provided have been essential to the improvement of this guide.

## OVERVIEW

The e-Desk program includes an online part (in MOOC format) carried out by means of pilot activities at the Universities of Cantabria (UC), Lappeenranta-Lahti University of Technology (LUT), Universidade Nova de Lisboa (UNL) and University of Zagreb (FOI).

In this first implementation, the MOOC has been delivered on two different platforms.

First in University of Cantabria Virtual Classroom (<https://moodle.unican.es/login/index.php>), this for the specific training of the teachers for each partner and facing the Staff training phase.

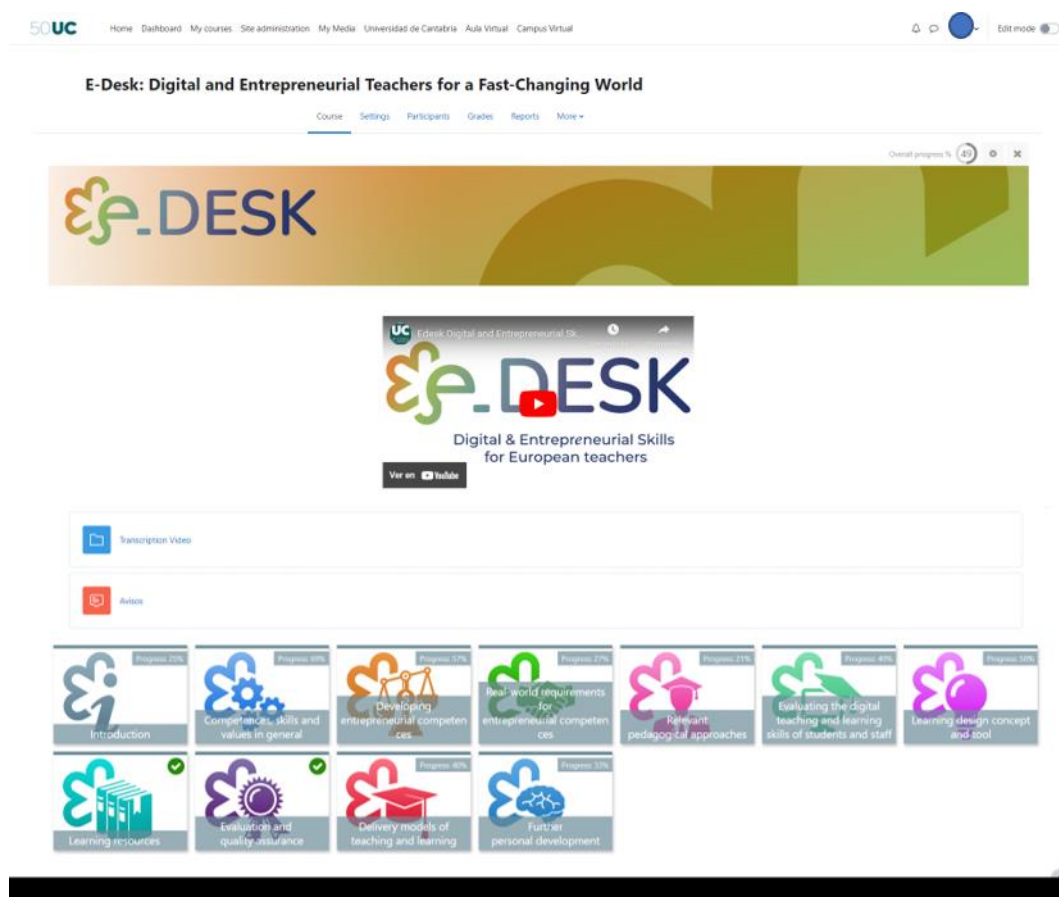


Image 1: MOOC e-Desk on University of Cantabria Virtual Classroom platform (source own elaboration)

This was critic to understand and improve the materials according with this first users experience. The Virtual Classroom of the University of Cantabria is a private platform and it was decided to use it in the first place because this space uses Moodle, like MiriadaX and other associated virtual training spaces, therefore it allows the creation and construction of a course on this platform., test it in a more controlled space with enough permissions to transform the experience, and then port it to any other platform in an easier way.

This helped us to improve the materials and make some changes like distributing the materials differently, cutting some videos according to the explained concept and theme. Improve some peer-to-peer activities and verify the fluency of the test as the users mentioned. With this feedback, the MOOC and materials were improved and that allows to create a course backup flexible and available to add in any other Moodle platform.

The second part of this first phase was to import and implement our Mooc in MiriadaX platform. Miriadax (<https://miriadax.net/>) is a Spanish-speaking platform that offers MOOC-type courses, it has more than 6.5 million users, more than 3,500 teachers and more than 900 published courses. (UNAD, 2022).

This platform was created in 2012 as an agreement between Telefónica (the largest telecommunications company in Spain) and Universia (Educational Foundation of Banco Santander), although now it belongs only to Telefónica, through its subsidiary Telefónica Education Digital (TED). As mention before, now this platform works with Moodle (a personalized an improve version of it) but in the past the platform was developed internally and includes features similar to other platforms such as Coursera, edX or Future Learn; Content pages, integrated videos, evaluation activities, forums, frequently asked questions, questionnaires, etc. Using Moodle MiriadaX allows to use different and enrich activities such H5P, Workshops, etc.

Today, MiriadaX is the leading MOOC platform in the Spanish speaking world. It has 85 university partners and hundreds of courses in Spanish, Portuguese and English. Up until 2018, the platform was only available in Spanish, but it is now also available in English and Portuguese.

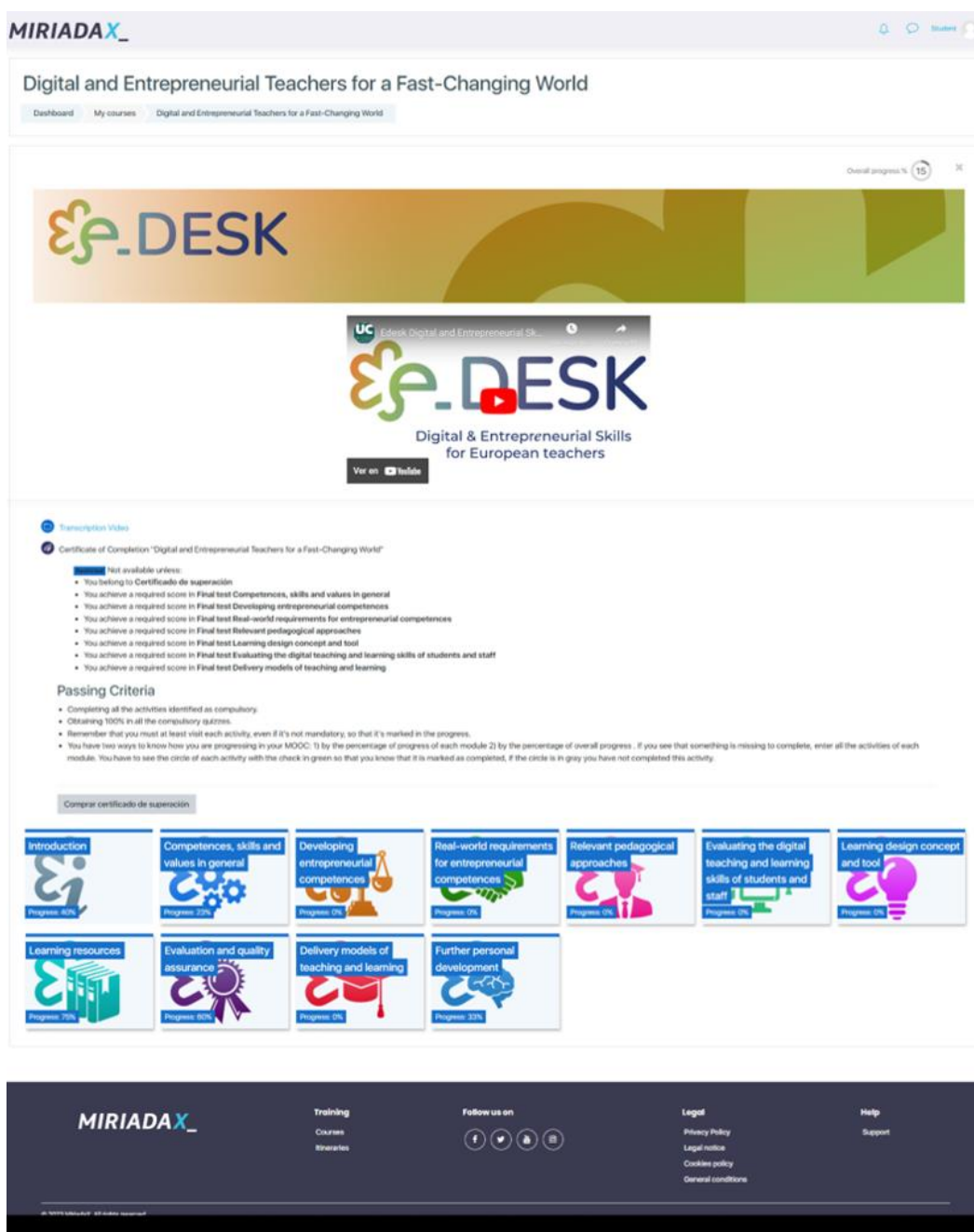


Image 2: MOOC eDesk on MiriadaX platform (source own elaboration)

In this platform this MOOC had two different editions. Once this first phase on MiriadaX finish, the consortium decided to open the MOOC in two other different platforms with the help and support of our partners from NOVA and FOI.

In the case of FOI, the implementation of the MOOC was quick, because they also use Moodle as Virtual Classroom platform, so the steps to replicate the MOOC where:

- Apply a Backup of the MOOC course on the UC platform.
- Once the backup finishes the file was downloaded (on the specific file format for Moodle: mbz).

- The file was sent to FOI staff and uploaded to their platform. The only specifications to consider are have the following plugins installed on Moodle:
  - **TILES FORMAT**<sup>1</sup>: That allows to create a specific look alike grid and also allows to show the progress for each tile and for the course in general.
  - **H5P**<sup>2</sup>: H5P allows to create interactive and very complete activities to increase participants engagement. If this tool is running on Moodle old versions installing it as a plugin it is necessary. For Moodle versions 3.9 or newer H5P is part of the core.

Once the course was uploaded and checked, FOI staff allows automatic enrollment for users that only have to register on the platform. In this case is easy to see that the MOOC maintain the same properties as in the other Moodle platforms.

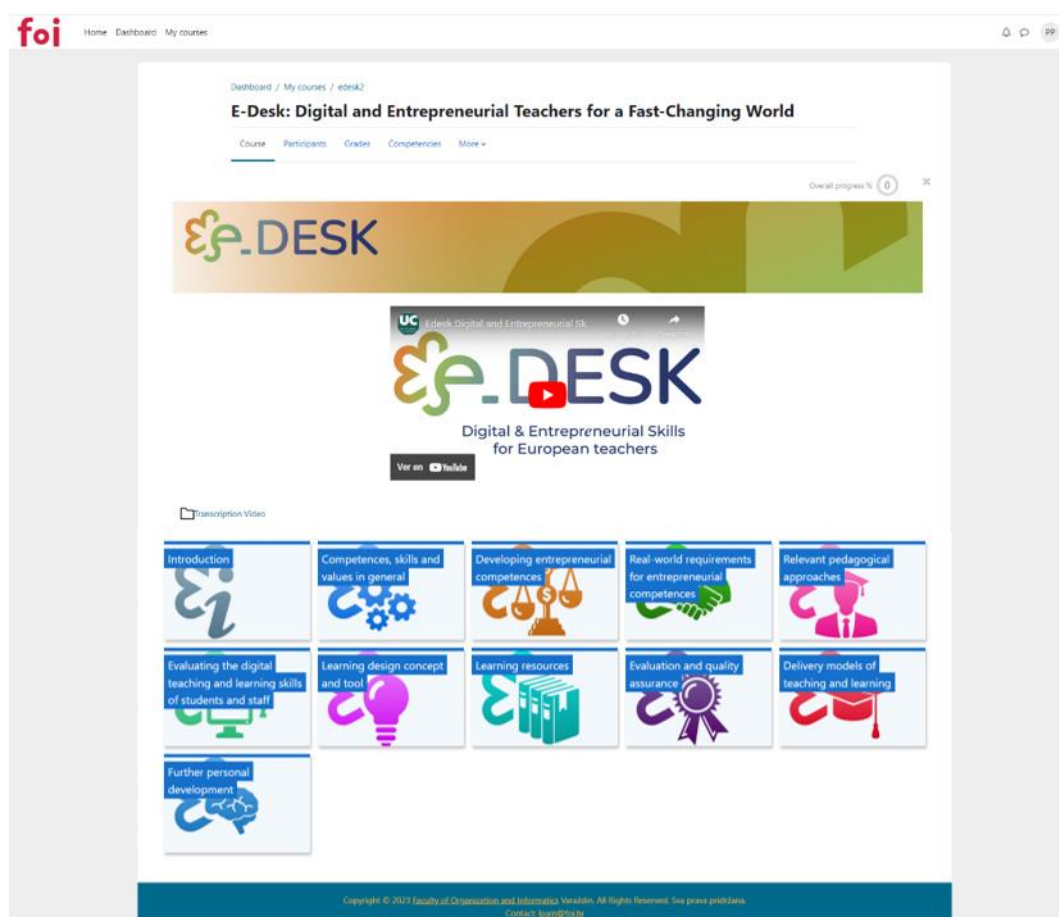


Image 3: MOOC eDesk on FOI platform (source own elaboration)

<sup>1</sup> More information available on: [https://moodle.org/plugins/format\\_tiles](https://moodle.org/plugins/format_tiles)

<sup>2</sup> More information available on: <https://h5p.org/>



For the NAU platform (<https://www.nau.edu.pt/en/>) the process was different. This platform is available on Portuguese and English.

NAU is an online project, pioneering at Portuguese national level, to support education and training, aimed at large audiences.

The NAU platform is a service developed and managed by the FCCN Unit of the Foundation for Science and Technology (FCT) that allows the creation of courses in MOOC format (Massive Open Online Course), that is, courses open and accessible to all, produced by recognized and relevant entities in society, with the participation of thousands of people.

This platform is part of the transversal actions of the Portugal INCoDe.2030 initiative by promoting digital development, digital inclusion and literacy, education and qualification of the active population. INCoDe.2030 finds in NAU a tool that contributes to greater access to knowledge and to the development of skills, making the population more qualified.

The funding for the NAU project comes from the European Regional Development Fund of the European Union and the COMPETE 2020 Community Operational Program, within the framework of the Portugal 2020 Framework, with project number 02 / SAMA2020 / 2016.<sup>3</sup>

NAU is not Moodle, so this was the first example available to reflect the flexibility and capacity of replicate the MOOC and the contents.

The course was migrated to this platform, transposing only the options that were not available, specifically the per to per activities, which were recreated as a forum to maintain the part of interaction between the participants that was raised in said activities.

Regarding the visual part, the format with which the platform allows you to work was maintained, although it is not in a grid format, it is a fairly clear theme format that allows participants to see the progress and save access points to resume it from where the student finished on their last entry to the course.

The rest of the activities and the essence of the MOOC remain intact and its scope has been increased by being part of this platform.

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<sup>3</sup> More information available on: <https://www.nau.edu.pt/en/about/>

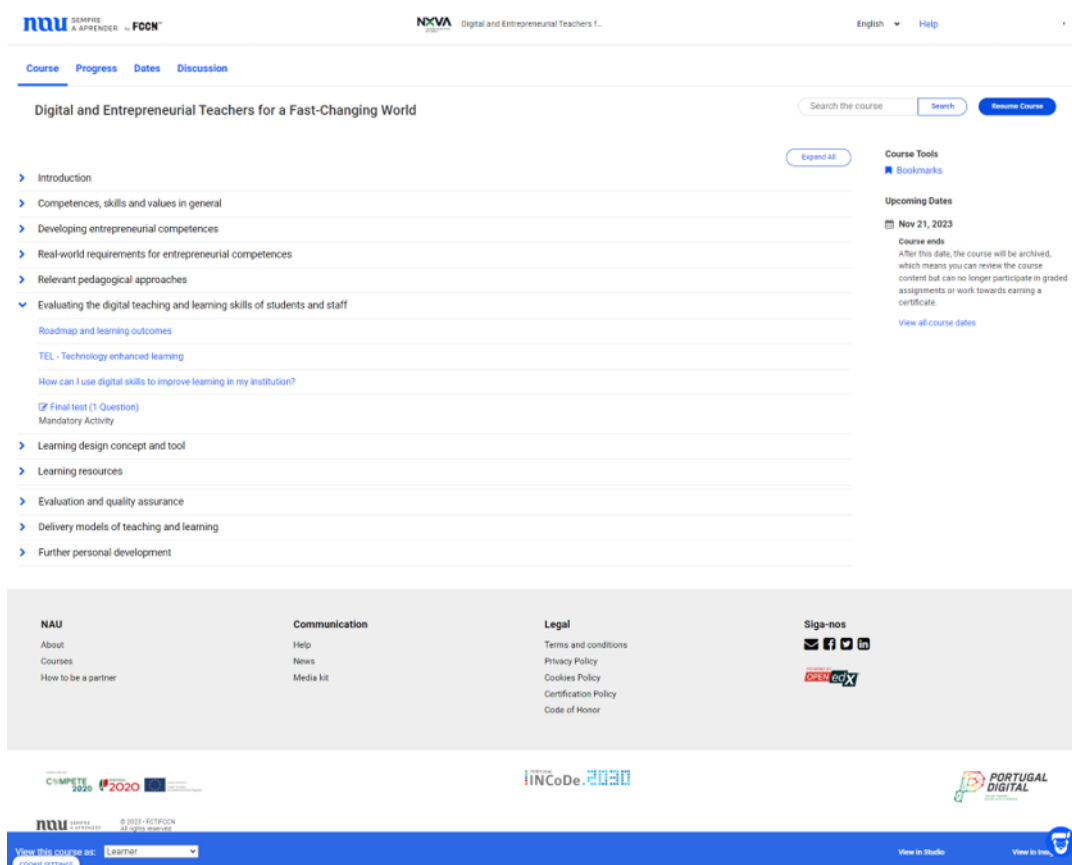


Image 4: MOOC eDesk on NAU platform (source own elaboration)

Once this first phase is concluded, the contents of the MOOC have been made alternatively available for consultation and/or reutilization on the e-Desk project webpage following the same structure described below. <https://edeskeurope.eu/e-desk-mooc/>

Also, the MOOC it ´s still available on FOI and NAU platforms.

The proposed MOOC course for the e Desk project consists of 10 modules with content, plus an introductory module 0.

The MOOC in its entirety is designed to be carried out autonomously and involves between 20 and 30 total hours of work. It is important to clarify that all modules have been fully available to students from the first to the last day of the MOOC. The only requirement to be able to complete the MOOC it´s to complete the activities mark as mandatory, in this case the different test available at the end of each module.

These total hours consider not only reading the information contained in the modules and watching the video pills, but also the complementary readings and videos proposed, carrying out the evaluation activities (test) and participating in the forums.

For show the main structure of the MOOC we are going to use the Moodle platform images as an example of how to implement this course.

## STRUCTURE OF THE MOOC

As mention before, this MOOC was designed to be flexible and replicable for other institutions / organizations and this part of the Digital Guides how the order and the materials used to create this MOOC.

The platform could change but each institution needs to maintain the essence of this MOOC and follow the steps recommended in this document.

### MOOC Entry Page

As we mention the platform could change but we recommend to have an entry page where the participants could find the basic information before the enrollment step.

For this we recommend to add essential information of the MOOC like:

- Title of the MOOC
- Brief description
- Duration: Could be the total or divide by hours for materials and for the effort.
- Dates: For enrollment, course duration
- Languages available
- Introduction video for the entire MOOC
- Learning Outcomes
- Format
- Prerequisites (if needed)
- Assessment and certification
- Course Map
- Course TEAM
- Organizations Involved
- Type of license

You can see an example of this MOOC entry page on NAU platform:

Training and Education


**Digital and Entrepreneurial Teachers for a Fast-Changing World**

Ref. DETFOW

Duration: 20 hours    Effort: 20 hours    Pace: Self paced

This course is designed to help higher education educators develop entrepreneurial and digital skills, as well as providing resources for the implementation of hybrid and blended methodologies.

381 already enrolled!



f t in

Enrollment

From May 2, 2023 to Nov 7, 2023

Course


From May 2, 2023 to Nov 21, 2023

Languages

English

Go to course

You are enrolled in this course run



Ver on YouTube

What you will learn

After completion of the MOOC learner/teacher (MOOC participants) will be able to:

- ✓ L01 - describe pedagogical approaches, teaching and assessment methods that enhance students' engagement to develop students' entrepreneurial competences in online learning environment
- ✓ L02 - identify needs to assist students in the real-world context to spot opportunities where value can be generated to others, to address needs that have not been met as well as seize and shape opportunities to respond to challenges to generate value to others.
- ✓ L03 - analyze various ideation methods and be able to assess their use in different learning environments
- ✓ L04 - analyze consequences and impact of ideas, opportunities, and actions and be able to assess their value regarding the context, using different applicable methods in different learning environments.
- ✓ L05 - select sources and information in order to support students' approach to ethical and sustainable thinking
- ✓ L06 - evaluate individual and group strengths and weaknesses of students and staff regarding hybrid and digital teaching and learning about entrepreneurial competences.
- ✓ L07 - integrate the material available in the MOOC with other appropriate resources to improve teaching and learning practice
- ✓ L08 - design an interactive pedagogical session in selected learning environments
- ✓ L09 - design learning to enhance students' engagement and motivation, using different resources (ex. digital tools and platforms) and pedagogical techniques (ex. feedback, collaborative work).
- ✓ L010 - use appropriate technology in support pedagogical approaches that contribute to development of students entrepreneurial and problem-solving skills

Other course runs

No other course runs

Image 5: MOOC eDesk on NAU platform Entry Page example (source own elaboration)

## Description

This MOOC was designed to give the needed skills and tools for educators to manage successfully their teaching activity on a digital environment and the design of an adaptable, transversal, scalable and replicable high-quality hybrid education methodology that places students at the centre of the teaching process.

## Format

The MOOC counts with ten modules focused on entrepreneurial and digital competencies, learning design, innovative pedagogical approaches and useful tools and materials to ease the introduction of the technology in your classroom.

## Prerequisites

Basic notions of handling a personal computer and browsing the Internet.

## Assessment and certification

The evaluation is done through quiz and tests. To obtain the Certificate you must have at least 75% in the assessment.

## Course plan

1. Competences, skills, and values in general
2. Developing entrepreneurial competences
3. Real-world requirements for entrepreneurial competences
4. Relevant pedagogical approaches
5. Evaluating the digital teaching and learning skills of students and staff
6. Learning design concept and tool
7. Learning resources
8. Evaluation and quality assurance
9. Delivery models of teaching and learning
10. Further personal development

## Course team



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Project Manager - CISE



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**Pirjo Kuru**

Project Manager - Lappeenranta University of Technology



**Hilka Laakso**

Project Manager - Lappeenranta University of Technology

Image 6: MOOC eDesk on NAU platform Entry page second part entry page (source own elaboration)

## Organizations



## License

### License for the course content

#### Attribution-NonCommercial-NoDerivatives

You are free to:

- Share – copy and redistribute the material in any medium or format

Under the following terms:

- Attribution – You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
- NonCommercial – You may not use the material for commercial purposes.
- NoDerivatives – If you remix, transform, or build upon the material, you may not distribute the modified material.



Image 7: MOOC eDesk on NAU platform Entry page third part entry page (source own elaboration)

The structure of the MOOC modules is as follows:

## Header of the MOOC and Video introduction:

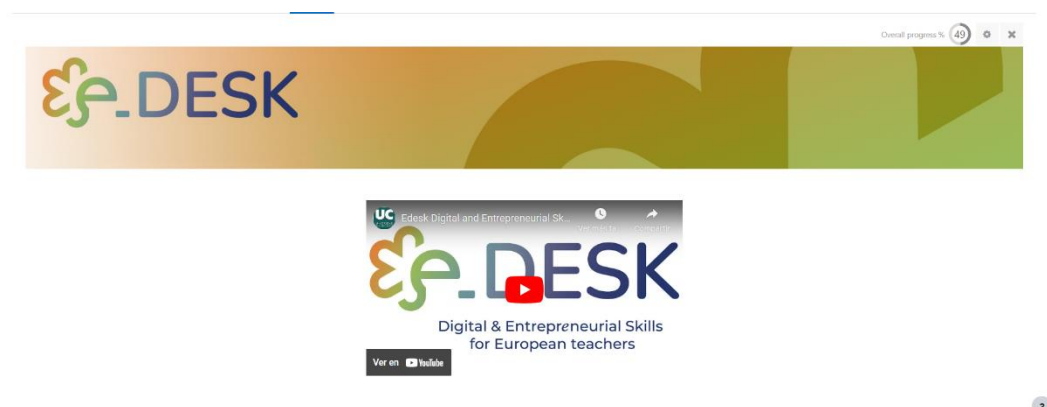


Image 8: Header and video introduction. (source own elaboration)

This part of the course contains:

- An image with the project logo as a header of the course
- Video presentation of the MOOC: [https://youtu.be/n56q\\_WQbHOc](https://youtu.be/n56q_WQbHOc)
- Transcription of the video.
- News forum





## Introduction

- Video "Welcome to the course" <https://youtu.be/ECaXV87L9Hk>
- Course Roadmap:
  - Explaining the road to follow with the modules available.
- Passing Criteria
- Glossary of basic concepts
- News forum
- Initial Self Assessment
- Survey "Your expectations about the MOOC"
- Forum for more Technical help
- Transcription of the video

**Introduction**

Welcome to the course!

**Course roadmap**

Competences, skills and values in general

Real-world requirements for entrepreneurial competences

Relevant pedagogical approaches

Developing entrepreneurial competences

Evaluating the digital teaching and learning skills of students and staff

Learning design concept and tool

Learning resources

Delivery models of teaching and learning

Evaluation and quality assurance

Further personal development

**Passing Criteria**

- Completing all the activities identified as compulsory.
- Obtaining 100% in all the compulsory quizzes.
- Remember that you must at least visit each activity, even if it's not mandatory, so that it's marked in the progress.
- You have two ways to know how you are progressing in your MOOC: 1) by the percentage of progress of each module 2) by the percentage of overall progress. If you see that something is missing to complete, enter all the activities of each module. You have to see the circle of each activity with the check in green so that you know that it is marked as completed, if the circle is in gray you have not completed this activity.

**TRANSCRIPTION**

Transcription Video

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Image 9: Introduction Module Structure (source own elaboration)



## Competences, skills and values in general

- Competences, skills and values in general video introduction: <https://youtu.be/rx-m7-rrGD4>
- Roadmap
- Learning Outcomes
- Entrepreneurial Competences
  - Your Tasks
  - PDF: Entrepreneurial education
  - URL: Video Entrepreneurial education
  - H5P: QUIZ Formative assessment based on the pre-reading and video
  - VIDEOS Best practices on entrepreneurial education
  - FORUM: Discussion based on the pre-reading, videos and own experience
- Pedagogical approaches, teaching and assessment
  - Your Tasks
  - Test your pre-knowledge
    - H5P: QUIZ Pre-quiz
  - Broaden your knowledge
    - VIDEO: Learning outcomes (part 1)
    - VIDEO: Learning outcomes (part 2)
    - VIDEO: Learning theories (part 1)
    - VIDEO: Learning theories (part 2)
  - Test & discuss
    - H5P: QUIZ Quiz
    - FORUM: Discussion on learning outcomes and constructive alignment
  - Transcriptions
    - Transcriptions of the videos on the module
  - QUIZ: Final test Competences, skills and values in general

**Competences, skills and values in general**

UC Competences, skills and values in g

**EDES**  
Digital & Entrepreneurial Skills  
for European teachers

For on YouTube

**Competences, skills and values in general roadmap**

Entrepreneurial competences  
Best practices videos  
Discussion based on the pre-reading, videos and own experiences  
Quiz  
Pedagogical approaches, teaching and assessment  
Videos on learning outcomes and learning theories  
Discussion on learning outcomes and constructive alignment  
Pre-Quiz  
Quiz

This module provides an introduction to competences, skills and values, focusing on **entrepreneurial competences**, and **pedagogical approaches** which can support the acquisition of such competences.

**LEARNING OUTCOMES**

After completing this module, participants will be able to:

- Identify what entrepreneurial competences students need in the contemporary world to seize and create opportunities and meet challenges to generate value.
- Describe pedagogical approaches, teaching and assessment methods that enhance students' engagement to develop students' entrepreneurial competences in online learning environment.

**ENTREPRENEURIAL COMPETENCES**

First, we are going to take our first steps into entrepreneurial education and entrepreneurial competences. Here you will find some reading and best practices video examples. Then, we would like you to discuss with the rest of the participants about the topics seen in these materials.

**YOUR TASKS**

Here you will be first asked to go through a written document including some theory and basics about entrepreneurial education, as well as some examples of application of this approach in the educative institutions. Afterwards, you will test your knowledge about the reading and pass to the best practices examples. These examples aim to show you real cases where entrepreneurial education is included in the university campus. Finally, you will have the chance to debate, share experiences and comments about what you have seen with your colleagues.

**Pedagogical approaches, teaching and assessment**

Before we dig deeper into various innovative pedagogical approaches, it is essential to remind ourselves of the basics.

**YOUR TASKS**

You are most probably already familiar with the key concepts such as **learning outcomes**, **constructive alignment**, and **learning theories**. However, we propose that you take a short pre-quiz, that will help you understand your understanding better. In case your pre-quiz result exceeds 75% (well done!), it is not essential that you watch the introductory videos on learning outcomes. However, we strongly recommend that you do watch them, together with videos on learning theories, as they might help you deepen your knowledge and provide you with some ideas for improvements in your teaching practice.

After watching the videos, please, take another quiz, to test what you have learnt.

Finally, join the discussion on learning outcomes and constructive alignment in the discussion forum.

In the last module, further personal development, you will find extra resources videos of Learning outcomes, as additional material that is not part of the compulsory contents of the MOOC.

**Test your pre-knowledge**

PDF Entrepreneurial education  
VIDEO Entrepreneurial education  
PDF Quiz Formative assessment based on the pre-reading and video  
PDF VIDEOS Best practices on entrepreneurial education  
FORUM Discussion based on the pre-reading, videos and own experience

**Pedagogical approaches, teaching and assessment**

Before we dig deeper into various innovative pedagogical approaches, it is essential to remind ourselves of the basics.

**YOUR TASKS**

You are most probably already familiar with the key concepts such as **learning outcomes**, **constructive alignment**, and **learning theories**. However, we propose that you take a short pre-quiz, that will help you understand your understanding better. In case your pre-quiz result exceeds 75% (well done!), it is not essential that you watch the introductory videos on learning outcomes. However, we strongly recommend that you do watch them, together with videos on learning theories, as they might help you deepen your knowledge and provide you with some ideas for improvements in your teaching practice.

After watching the videos, please, take another quiz, to test what you have learnt.

Finally, join the discussion on learning outcomes and constructive alignment in the discussion forum.

In the last module, further personal development, you will find extra resources videos of Learning outcomes, as additional material that is not part of the compulsory contents of the MOOC.

**Test your pre-knowledge**

PDF Quiz Pre-quiz

**Broaden your knowledge**

VIDEO VIDEO Learning outcomes (part 1)  
VIDEO VIDEO Learning outcomes (part 2)  
VIDEO VIDEO Learning theories (part 1)  
VIDEO VIDEO Learning theories (part 2)

**Test & discuss**

PDF Quiz Quiz  
FORUM Discussion on learning outcomes and constructive alignment

**TRANSCRIPTIONS**

PDF Transcriptions Videos  
QUIZ Final test Competences, skills and values in general

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Image 10: Competences, skills and values in general video introduction Module Structure (source own elaboration)



## Developing entrepreneurial competences

- Developing entrepreneurial competences introduction video: <https://youtu.be/aNweyUVijYA>
- Roadmap
- Learning Outcomes
- Your task
- What is EntreComp Framework?
  - European Entrepreneurship Competence Framework: <https://youtu.be/UwZPcJky0Ko>
  - 2.1 Entrepreneurial education: [https://youtu.be/smj6SNstA\\_o](https://youtu.be/smj6SNstA_o)
  - EntreComp Europe resource website (materials translated into various languages)
- What is EntreCompEdu?
  - PDF: EntreCompEdu
- EntreCompEdu's six pedagogical principles
  - PDF: Six Pedagogical principles
- EntreCompEdu Entrepreneurial Teaching Competence Table
  - PDF: Entrepreneurial Competence Levels in teaching
- Interactive EntreComp Entrepreneurial Competences Framework Flower
  - URL: Interactive EntreComp Entrepreneurial Competences Framework Flower
- Discussion Forum - Entrepreneurial competences in teaching and learning
  - FORUM: Entrepreneurial competences in teaching and learning
- Transcription
  - Transcription of the videos of the module
- Final test Developing entrepreneurial competences

Developing entrepreneurial competences

**Developing entrepreneurial competences roadmap**

What is EntreCompEdu?

EntreCompEdu six pedagogical principles

EntreCompEdu Entrepreneurial Teaching Competence Table

Interactive EntreComp Entrepreneurial Competences Framework Flower

Discussion Forum - Entrepreneurial competences in teaching and learning

This module aims to serve as an introduction to entrepreneurial competences and, especially to the EntreComp Framework and its adaptation to entrepreneurial education, EntreCompEdu.

**LEARNING OUTCOMES**

- Describe pedagogical approaches, teaching and assessment methods that enhance students' engagement to develop students' entrepreneurial competences in online learning environment.
- Evaluate individual and group strengths and weaknesses of students and staff regarding hybrid and digital teaching and learning about entrepreneurial competences.
- Evaluate the learning process and students' acquisition of learning outcomes related to entrepreneurial competences.

**YOUR TASKS**

In this module you will discover what EntreCompEdu is, its competences and pedagogical principles through some written material. Then, you can explore all the "petals" of the EntreComp Flower using an interactive test. Finally, don't forget to discuss with the rest of the participants about the inclusion of EntreComp entrepreneurial competences in your classroom.

**What is EntreComp Framework?**

In the following videos and documents you can familiarise yourself with EntreComp Framework.

EntreComp Europe resource website (Materials translated into various languages)

**What is EntreCompEdu?**

In the following document you can familiarise yourself with EntreCompEdu, EntreCompEdu is Educator's Professional Competence Framework for Entrepreneurial learning.

EntreCompEdu

**EntreCompEdu's six pedagogical principles**

Read Dr. Rosset's article of EntreCompEdu's six pedagogical principles to guide educators in their practice

Six pedagogical principles

**EntreCompEdu Entrepreneurial Teaching Competence Table**

EntreCompEdu Table for Entrepreneurial Teaching Competences will help the educator to understand entrepreneurial teaching and how it can be developed. The table will show with examples what level of orientation is needed and what kinds of procedures are followed in teaching at the different proficiency levels to develop from level Engaging to level Deepening and last to level Expertise. Reflect your own situation, what is your current proficiency level (Engaging / Deepening / Expertise) in the questions for each Entrepreneurial knowledge and understanding, Planning & Organising, Creative learning Environment, Teaching & Learning, Assessment & Professional learning & Development.

Entrepreneurial Competence Levels in teaching

**Interactive EntreComp Entrepreneurial Competences Framework Flower**

You have already seen the EntreComp Flower in the earlier assignment. Now you can take a deeper look what each competence means in teaching and learning. You can inspect all the competences of the interactive EntreComp Flower. Click the petal of the flower and then click on the description of the competence. To include "Your world responsibility" you will find examples of the study material where some of the competences are used in teaching and learning.

Interactive EntreComp Framework Flower

**Discussion Forum - Entrepreneurial competences in teaching and learning**

What thoughts and ideas comes to your mind when studying the EntreCompEdu framework, its pedagogical principles and the competence table? Which entrepreneurial competences (75 competences of EntreCompFramework Flower) you think are the most essential for your students (name your teaching field / subject / content)? Each participant should add at least 2 comments (one to each of the questions above) on the discussion forum. In the next module, their own requirements for entrepreneurial competences, there will be an essay assignment where you will be asked to draft a plan to how include entrepreneurial competences in your teaching. You can make notes to yourself of the emerging ideas that necessary to be added on the discussion forum.

Discussion Forum

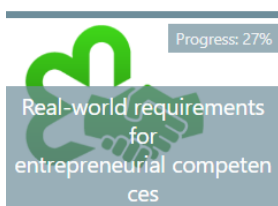
**TRANSCRIPTION**

Transcription Videos

Final test: Developing entrepreneurial competences

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Image 11: Developing entrepreneurial competences Module Structure (source own elaboration)



## Real-world requirements for entrepreneurial competences

- Real-world requirements for entrepreneurial competences introduction video: <https://youtu.be/dMGmyUbMSfk>
- Roadmap
- Learning Outcomes
- Your Tasks
- OECD Learning Compass 2030 - The future of learning
  - VIDEO. OECD Future of Education and Skills 2030: OECD Learning Compass 2030: [https://youtu.be/M3u1AL\\_aZjl](https://youtu.be/M3u1AL_aZjl)
  - OECD Learning Compass 2030 - The future of learning
- Changing world - changing work
  - VIDEOS - WEB Changing world - changing work
- Future skills
  - PDF: Real-world requirements in teaching and learning
  - PDF: Key findings Future Skills report
- Developing students' entrepreneurial competences / CASE examples
  - PDF: Learning Chemistry creatively / CASE LUT
  - PDF: Studying volunteer work in action / CASE LAB
  - PDF: Lahti Venture Program / CASE LUT, LAB, University of Helsinki.
  - VIDEO: Lahti Venture Program – Company's greetings: <https://youtu.be/vQOI9VSQzko>
- Studying Bachelor of Social Services degree on-line / CASE LAB
  - PDF: Bachelor of Social Services Degree online
- Essay - plan a course/module/lesson which develops entrepreneurial competences and real-world skills
  - PDF: Essay – plan teaching entity which develops entrepreneurial competences and real-world skills
- Transcriptions
  - Transcription of the videos from this module
- Final test: Real-world requirements for entrepreneurial competences

Real-world requirements for entrepreneurial competences

UC **DESK**  
Digital & Entrepreneurial Skills  
for European teachers

Real-world requirements for entrepreneurial competences roadmap

This module aims to provide successful examples of application of entrepreneurial education in real-world contexts. Also, it aims to foster participants' research of best practices and application of these competences in the university sphere.

**LEARNING OUTCOMES**

- Describe pedagogical approaches, teaching and assessment methods that enhance students' engagement to develop students' entrepreneurial competences in online learning environment.
- Analyzing identify what entrepreneurial competences students need in the contemporary world to seize and create opportunities and meet challenges to generate value.

**YOUR TASKS**

The module is divided into five different tasks that aim to provide an overview to the main requirements your students will face in the real world. First, we will focus on OECD Learning Compass 2030. This compass aims to guide some learning for future professionals to get the most out of their potential and improve the whole society's well-being. Afterward, we will go through what our students will need to fit the necessities of the future of work and what skills they will need to develop. Then, you will be able to discover some case studies based on the implementation of these skills for the future. Finally, you will be asked to write a short essay on how to foster the development of these skills for the real world in your classroom and provide feedback to the editor of your classroom.

**OECD Learning Compass 2030 - The future of learning**

The Learning Compass 2030 defines the knowledge, skills, attitudes and values that learners need to fulfil their potential and contribute to the well-being of their communities and the planet. Take a look at the picture of learning compass wheel and watch the video.

Source: <https://www.oecd.org/education/2030-project/teaching-and-learning/learning-compass-2030/>

**Task 1**  
OECD Learning Compass 2030 - The future of learning

**Changing world - changing work**

Watch the video and read the article to learn how world and work are changing.

**Task 2**  
VIDEOS - WEB  
Changing world - changing work

**Future skills**

Look for ideas of the Future Skills document 'Real-world requirements in teaching and learning'. Then go ahead to look for reading the document 'Key Findings Future Skills report'. 'The Future of Learning and Higher Education: Reality of the International Future Skills Inquiry' to learn what sets of skills is needed in the future and how this is changing higher education.

**Task 3**  
Real world in teaching and learning

**Task 4**  
Key Findings Future Skills report

**Developing students' entrepreneurial competences / CASE examples**

In this section you can find examples of study routes or entities where students' entrepreneurial competences have been developed. Most of the cases include digital teaching, partially at least.

**Task 5**  
Learning Chemistry creatively / CASE LUT

**Task 6**  
Studying volunteer work in action / CASE LAB

**Task 7**  
Lahti Venture Program / CASE LUT, LAU, University of Helsinki

**Task 8**  
Lahli Venture Program - Company's greetings

**Studying Bachelor of Social Services degree on-line / CASE LAB**

This document summarizes studying Bachelor of Social Services degree fully on-line at LUT University of Applied Sciences in Finland. This study program supports also students' real-world and entrepreneurial competences.

**Task 9**  
Bachelor of Social Services Degree on-line

**Essay - plan a course/module/lesson which develops entrepreneurial competences and real-world skills**

When we enter the 21st century, we gather all these and also create students' entrepreneurial competences and real-world skills in your teaching. Select one of the above and draft a plan how to use it in this assignment. The plan must have a target group, topic, structure, setting, schedule etc. It can be a detailed description of one lecture / event or a more general description of a series of lectures. Additionally, describe what goals are reached and how the planned assignment enhances the entrepreneurial competences and real-world skills of the students. If you plan to combine many competences and skills, you can select one or more as a main priority and concentrate on that. Put your essay in this forum. Each essay will be peer-reviewed by other participants in the course. Instructions for peer-reviewing evaluation criteria in the forum. The criteria take into account the gathered ideas, planned content/module/lesson and analysis of its benefits.

**Task 10**  
Essay: plan teaching entity which develops entrepreneurial competences and real-world skills

**TRANSCRIPTIONS**

**Task 11**  
Transcriptions Video

**Task 12**  
Final test Real-world requirements for entrepreneurial competences

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Image 12: Real-world requirements for entrepreneurial competences Module Structure (source own elaboration)

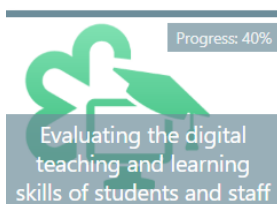




## Relevant pedagogical approaches

- Relevant pedagogical approaches introduction video: <https://youtu.be/dTyNk5OxtSI?si=ctIqQONP0jyKDV7D>
- Roadmap
- Learning outcomes
- Your Tasks
- Introduction to innovative pedagogies
  - H5P: QUIZ Introductory quiz (branching)
- Flipped classroom
  - PDF: Flipped classroom – Reading material
  - VIDEO: flipped classroom part 1: [https://youtu.be/yc\\_1mk-x630](https://youtu.be/yc_1mk-x630)
  - VIDEO: flipped classroom part 2: <https://youtu.be/XL2kw6LdUxo>
  - VIDEO: flipped classroom good practice example part 1 (OPTIONAL): <https://youtu.be/OahW5Pmdx7Q>
  - VIDEO: flipped classroom good practice example part 2 (OPTIONAL): <https://youtu.be/Fv7GX6-bsIE>
  - PDF: Flipped Classroom in the pandemic – infographics
- Problem-based and inquiry-based learning
  - PDF: Problem-based and inquiry-based learning – reading material
  - VIDEO: inquiry-based learning part 1: [https://youtu.be/X\\_cfduu7OIw](https://youtu.be/X_cfduu7OIw)
  - VIDEO: inquiry-based learning part 2: <https://youtu.be/ZGn5k6PtArM>
- Project-based learning
  - PDF: Project-based learning
  - VIDEO: Project-based learning part 1: <https://youtu.be/ldZgOFXcV90>
  - VIDEO: Project-based learning part 2: <https://youtu.be/JM3TID1I-Lk>
- Work-based learning
  - PDF: Work-based learning – reading material
  - VIDEO: Work-based learning – good practice example part 1 (OPTIONAL): <https://youtu.be/T4M33KpxOWM>
  - VIDEO: Work-based learning – good practice example part 2 (OPTIONAL): <https://youtu.be/frR8CiwMqo4>
  - VIDEO: Work-based learning – good practice example part 3 (OPTIONAL): <https://youtu.be/HuZrc-i8j9A>
  - VIDEO: Work-based learning – good practice example part 4 (OPTIONAL): <https://youtu.be/HkGJrje24Us>
- Discussion & exchange of experiences
  - FORUM: Discussion on innovative pedagogical approaches
- Transcriptions
  - Transcription of the videos in this module
- Final test Relevant pedagogical approaches



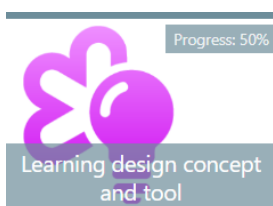


## Evaluating the digital teaching and learning skills of students and staff

- Evaluating the digital teaching and learning skills of students and staff introduction video: [https://youtu.be/\\_EicWZA2tPo](https://youtu.be/_EicWZA2tPo)
- Roadmap
- Learning Outcomes
- Your Tasks
- TEL - TECHNOLOGY ENHANCED LEARNING
  - Why are we talking about TEL?
    - VIDEO: Technology enhance learning: <https://youtu.be/JfP9N03NfoA>
  - Digital Competences and Skills
    - VIDEO: Digital Competences: <https://youtu.be/p4CcdVUiW1k>
    - WEB: Assessment – Evaluating Digital Skills
    - ASSIGNMENT: Digital Skills – ASSESSMENT RESULTS
    - FILE: Digital Skills – ASSESSMENT RESULTS
    - CHAT: Comments on Digital Skills Assessment Results
- How can I use digital skills to improve learning in my institution?
- VIDEO: Re-inventing Education for the Digital Age | David Middelbeck | TEDxMünster: <https://youtu.be/Arl6albrkuY>
- FORUM: Improve learning at Institutional level
- Transcriptions
- Final test Evaluating the digital teaching and learning skills of students and staff

The screenshot displays the EDESC MOOC interface. At the top, there's a navigation bar with icons for various modules. The main content area is titled 'Evaluating the digital teaching and learning skills of students and staff'. Below the title, there's a video player showing a presentation slide with the EDESC logo and the text 'Digital & Entrepreneurial Skills for European teachers'. The slide also includes a diagram titled 'Evaluating the digital teaching and learning skills of students and staff roadmap' which shows a path from 'Why are we talking about Technology Enhanced Learning? (video resources)' to 'Digital Competences and Skills - Videos and Assessment' to 'How can I use digital skills to improve learning in my institution?'. Below the video, there's a section for 'LEARNING OUTCOMES' and 'VIDEO TASKS'. The 'LEARNING OUTCOMES' section lists several outcomes related to digital competences and skills. The 'VIDEO TASKS' section provides instructions for watching the video and completing the tasks. Below this, there's a section for 'TEL - TECHNOLOGY ENHANCED LEARNING' with a video player showing a presentation slide titled 'Why are we talking about TEL?'. The slide also includes a diagram titled 'Evaluating the digital teaching and learning skills of students and staff roadmap'. Below the video, there's a section for 'Digital Competences and Skills' with a video player showing a presentation slide titled 'Digital Competences and Skills'. The slide also includes a diagram titled 'Evaluating the digital teaching and learning skills of students and staff roadmap'. Below the video, there's a section for 'How can I use digital skills to improve learning in my institution?' with a video player showing a presentation slide titled 'How can I use digital skills to improve learning in my institution?'. The slide also includes a diagram titled 'Evaluating the digital teaching and learning skills of students and staff roadmap'. At the bottom, there's a table with four columns: 'Task', 'Assessment', 'Digital Skills - ASSESSMENT RESULTS', and 'Comments on Digital Skills Assessment Results'. The table contains four rows of tasks and their corresponding assessment results. Below the table, there's a section for 'TRANSCRIPTIONS' with a video player showing a presentation slide titled 'TRANSCRIPTIONS'. The slide also includes a diagram titled 'Evaluating the digital teaching and learning skills of students and staff roadmap'. At the bottom, there's a section for 'All the materials available within this MOOC have been prepared in line with the Creative Commons License (CC BY-NC-SA)'.

Image 14: Evaluating the digital teaching and learning skills of students and staff Module Structure (source own elaboration)



## Learning design concept and tool

- Learning design concept and tool introduction video: <https://youtu.be/2CrevlCVF2I>
- Roadmap
- Learning outcomes
- Your tasks
- Introduction to learning design
  - VIDEO: Learning Design (part 1): <https://youtu.be/XDmokduytoY>
  - VIDEO: Learning Design (part 2): <https://youtu.be/5j-Xgdnuhj0>
  - H5P: Quiz Learning Design
- Learning design & the BDP tool
  - LINK: BDP Learning tool
  - VIDEO: intro tutorial for the BDP tool prepared for the E + RAPIDE project part 1: <https://youtu.be/DvxHIDI343E>
  - VIDEO: intro tutorial for the BDP tool prepared for the E + RAPIDE project part 2: <https://youtu.be/-a8Ebl6jLrM>
  - VIDEO: Tutorial for the BDP LD tool (part 1): <https://youtu.be/vkndRX8H6Uw>
  - VIDEO: Tutorial for the BDP LD tool (part 2): [https://youtu.be/7B3Ai0Se\\_i0](https://youtu.be/7B3Ai0Se_i0)
- Practice & peer-assessment
  - WORKSHOP: Workshop on Learning Design
- Transcriptions
  - Transcription of the videos in this module
- Final test Learning Design concept and tool

Progress 20%

Introduction

Progress 60%

Complex tasks skills and values in general

Progress 10%

Developing entrepreneurial competences

Progress 20%

Real world requirements for entrepreneurial competences

Progress 10%

Relevant pedagogical approaches

Progress 40%

Evaluating the digital teaching and learning skills of students and staff

Progress 50%

Learning design concept and tool

Learning design concept and tool

Ver on YouTube

Learning design concept and tool roadmap

Different pedagogical approaches relate to different types of teaching and learning activities, leading to the acquisition of learning outcomes. The sequencing of these activities, together with the planning of students' workload, resources, support and other aspects of the teaching and learning process, is done within **learning design**. This module will provide you with guidelines and a tool which will support you in designing learning on line with the intended learning outcomes and pedagogical approaches.

LEARNING OUTCOMES

After completing this module, participants will be able to:

- Create interactive learning designs and sessions developing students' entrepreneurial competences, mindsets students' pre-competence, available resources and pedagogical techniques that enhance students' engagement and motivation.
- Identify relevant pedagogical approaches to support students to analyse the impacts of ideas, opportunities, actions, created values and ethical implications in the selected real-world environment.
- Use appropriate technology to support sound pedagogical approaches that contribute to the development of students' entrepreneurial and problem-solving skills.

YOUR TASKS

We will start with a short introductory video, explaining the concept of learning design, followed by a simple quiz, checking your understanding.

After this, register and explore the *Balanced Learning Design Planning (BDP)* tool ([www.learning-design.net](http://www.learning-design.net)), with the help of video tutorials.

Once you have familiarised yourself with the learning design concept and the BDP tool, it is time for some practical work. Get creative! Use the BDP tool to prepare a learning design of one of your courses. Export your learning design, upload it to the learning design workshop, and take part in peer-assessment of your colleague's designs.

Introduction to learning design

VIDEO VIDEO Learning design (part 1)	VIDEO VIDEO Learning design (part 2)	QUIZ QUIZ Learning design
---	---	------------------------------

Learning design & the BDP tool

URL BDP Learning Design tool	VIDEO VIDEO intro tutorial for the BDP tool (E = RAPIDE project) (part 1)	VIDEO VIDEO intro tutorial for the BDP tool (E = RAPIDE project) (part 2)	VIDEO VIDEO tutorial for the BDP LD tool (part 1)	VIDEO VIDEO tutorial for the BDP LD tool (part 2)
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Practice & peer-assessment

WORKSHOP Workshop on learning design
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TRANSCRIPTIONS

FOLDER Transcriptions Videos	QUIZ Final test Learning design concept and tool
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Image 15: Learning design concept and tool Module Structure (source own elaboration)

30



## Learning resources

- Learning resources introduction video: <https://youtu.be/hRf3SYyyhp8>
- Roadmap
- Learning outcomes
- Your tasks
- FORUM: What do you know about ethical and sustainable thinking?
- VIDEO: Entrepreneurship is about ethical and sustainable thinking: [https://youtu.be/Hg\\_tEWqB--s](https://youtu.be/Hg_tEWqB--s)
- H5P: The originality control and plagiarism: concepts and tools
- H5P: Learning Resources
- FORUM: Tell us your checklist
- Transcription
  - Transcription of the videos in this module

Introduction

Competences, skills and values in general

Developing entrepreneurial competences

Competences for entrepreneurial competences

Relevant pedagogical approaches

Evaluating the digital teaching and learning skills of students and staff

Learning design concept and tool

Learning resources

Feedback and quality assurance

Delivery models of teaching and learning

Further personal development

## Learning resources

# E.DESK

Digital & Entrepreneurial Skills for European teachers

View on YouTube

### Learning resources roadmap

This module aims to provide you resources to educate and to include ethical and sustainable thinking in your classes, but also to prevent plagiarism, learning resources that you can include in your lessons, etc.

### LEARNING OUTCOMES

- Applying Use appropriate technology to support sound pedagogical approaches that contribute to the development of students' entrepreneurial and problem-solving skills.
- Applying Integrate the learning material available in the MOOC with other appropriate teaching and learning resources to foster entrepreneurial competences and ethical and sustainable thinking.
- Creating Create interactive learning designs and sessions developing students' entrepreneurial competences, minding students' pre-competence, available resources and pedagogical techniques that enhance students' engagement and motivation.

#### YOUR TASKS

In this module you will find some materials focused on ethical and sustainable thinking. This concept is included as one of the competences in the European Union's EntreComp framework. It's a great opportunity to identify your readiness with entrepreneurial education.

#### FORUM

What do you know about ethical and sustainable thinking?

View on YouTube

Ethical and sustainable thinking is one of 15 competences that any learner can develop to become entrepreneurial, according to the European Commission Entrepreneurship Competence Framework (PDF download on the next link: <http://eur.europa.eu/tx/79fG>, known as the EntreComp).

In this video, Rebecca Weicht, Head of Operations at Bartani Education (<https://bartani.com/>), describes how students can learn to think and act ethically and sustainably through dilemma scenarios.

Dilemma scenarios help learners take into account people, planet and profit when assessing the potential impact of ideas and opportunities. Explore the EntreComp framework: [https://olimes.ec.europa.eu/news/entrecomp-practical-guide-raising-access-entrepreneurship-2021-06-22\\_en](https://olimes.ec.europa.eu/news/entrecomp-practical-guide-raising-access-entrepreneurship-2021-06-22_en)

Video production: European Schoolnet ([www.esn.org](https://www.esn.org)) licence: CC BY

HSP The originality control and plagiarism: concepts and tools

HSP Learning Resources

HSP Check List

FORUM Tell us your checklist

#### TRANSCRIPTION

#### FOLDER

Transcription Video

All the materials available within this MOOC have been prepared in line with the Creative Commons licence (CC BY NC SA).

Image 16: Learning resources Module Structure (source own elaboration)





## Evaluation and quality assurance

- Evaluation and quality assurance introduction video:  
<https://youtu.be/u7vbdoh2J14>
- Roadmap
- Learning Outcomes
- Your tasks
- PDF: An Overview of Authorization and Quality Assurance of Higher Education
- LINK: 5 – Steps Evaluation: the importance of Quality Assurance in the Assessment Process
- LINK: Quality assurance in higher education
- Quality Assurance in Higher Education in Europe
  - LINK: European Quality Assurance Register for Higher Education
  - LINK: European Association for Quality Assurance in Higher Education
  - PDF: Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG): (OPTIONAL)
- Transcription
  - Transcription of the videos in this module

Introduction

Competences, skills and values in general

Entrepreneurial competences

Entrepreneurial competences

Didactic and pedagogical approaches

Teaching and learning skills of students and staff

Learning design concept and tool

Learning resources

Evaluation and quality assurance

Delivery models of teaching and learning

Further personal development

Evaluation and quality assurance

UC Evaluation and quality assurance

**E-DESK**

Digital & Entrepreneurial Skills for European teachers

View on YouTube

### Evaluation and quality assurance roadmap

This module focuses on the importance of quality assurance in the different dimensions of Higher Education, for example, in assessment. It also provides examples of quality assurance standards useful for European university educators.

### LEARNING OUTCOMES

- Integrate the learning material available in the MOOC with other appropriate teaching and learning resources to foster entrepreneurial competences and ethical and sustainable thinking.
- Identify relevant pedagogical approaches to support students to analyse the impacts of ideas, opportunities, actions, created values and ethical implications in the selected real-world environment.
- Evaluate individual and group strengths and weaknesses of students and staff regarding hybrid and digital teaching and learning about entrepreneurial competences.
- Evaluate the learning process and students' acquisition of learning outcomes related to entrepreneurial competences.
- Create interactive learning designs and sessions developing students' entrepreneurial competencies, molding students' pre-competence, available resources and pedagogical techniques that enhance students' engagement and motivation.

### YOUR TASKS

First, you will have an introductory reading to the concept of quality assurance in higher education institutions. Then you will be provided with some external resources for the assessment of quality and information specially focused on the assurance of quality in higher education at European level.

PDF	URL	URL
An Overview of Authorization and Quality Assurance of Higher Education Institutions	5-Steps Evaluation: The Importance of Quality Assurance in the Assessment Process	Quality assurance in higher education

### Quality Assurance in Higher Education in Europe

URL	URL	PDF
European Quality Assurance Register for Higher Education	European Association for Quality Assurance in Higher Education	Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG): (OPTIONAL)

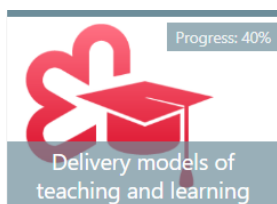
### TRANSCRIPTION

FOLDER

Transcription Video

All the materials available within this MOOC have been prepared in line with the Creative Commons licence (CC BY NC SA).

Image 17: Evaluation and quality assurance Module Structure (source own elaboration)



## Delivery models of teaching and learning

- Delivery models of teaching and learning introduction video: [https://youtu.be/fH\\_hRgkzp9o](https://youtu.be/fH_hRgkzp9o)
- Roadmap
- Learning outcomes
- Your Tasks
- VIDEO: CISE Delivery modes for teaching and learning: <https://youtu.be/2bUbogVvoZk?si=HLDm03sFuU1SWKO9>
- Delivery models of teaching and learning
- FORUM: Discussion on institutional approaches to delivery modes
- VIDEOS: Best practices
- FORUM: Your experience with delivery modes
- Transcription
  - Transcription of the videos in this modeule
- Final test Delivery models of teaching and learning

Introduction

Competences, skills and values in general

Developing entrepreneurial competences

Entrepreneurial competences

Relevant pedagogical approaches

Evaluating the digital teaching and learning skills of students and staff

Learning design concept and tool

Learning resources

Evaluation and quality assurance

Delivery models of teaching and learning

Further personal development

## Delivery models of teaching and learning

UC EDESK  
Digital & Entrepreneurial Skills  
for European teachers

Vor on YouTube

### Delivery models of teaching and learning roadmap

Introductory video on delivery modes

Delivery modes for teaching and learning

Discussion on institutional approaches to delivery modes

Best practices videos

Your experience with delivery modes: debate

This module aims to differentiate and introduce the main delivery models contemplated by the eDESK methodology. Moreover, it provides best practices on the implementation of these delivery modes within the university classroom and fosters participants' reflection on the application of these delivery modes in their institutions.

### Learning outcomes

- Use appropriate technology to support sound pedagogical approaches that contribute to the development of students' entrepreneurial and problem solving skills. (20%)
- Integrate the learning material available in the MOOC with other appropriate teaching and learning resources to foster entrepreneurial competences and ethical and sustainable thinking. (10%)
- Evaluate individual and group strengths and weaknesses of students and staff regarding hybrid and digital teaching and learning about entrepreneurial competences. (10%)

### YOUR TASKS

In this module you will first dive into the world of delivery modes with a video explanation of the different types and its benefits. Then, you will be asked to discuss about their viability and your opinion on them. Afterward you will be able to see some best practices that implement these delivery modes in real university contexts. Finally, you will be asked to discuss about the delivery modes, to provide examples from your organizations and to debate about the pros and cons of each mode.

UC EDESK  
Digital & Entrepreneurial Skills  
for European teachers

Vor on YouTube

PAGE

Delivery modes for teaching and learning

FORUM

Discussion on institutional approaches to delivery modes

PAGE

Best practices videos

FORUM

Your experience with delivery modes

### TRANSCRIPTIONS

FOUNDER

Transcription Videos

QUIZ

Final Test Delivery models of teaching and learning

All the materials available within this MOOC have been prepared in line with the Creative Commons licence (CC BY-NC-SA).

Image 18: Delivery models of teaching and learning Module Structure (source own elaboration)



## Further personal development

- Further personal development introduction video: [https://youtu.be/eFEZDS0tjZY?si=VaR46lva\\_Ho1Lj9O](https://youtu.be/eFEZDS0tjZY?si=VaR46lva_Ho1Lj9O)
- Roadmap
- H5P: Further personal development
- SURVEY: Final Self-assessment
- SURVEY: Have your expectations been met?
- Extra Resources Learning outcomes videos (OPTIONAL)
- Transcriptions
  - Transcription of the videos in this module

The screenshot displays the 'Further personal development' module structure. At the top, a navigation bar includes icons for Introduction, Competences, skills and values in general, Developing entrepreneurial competences, Real-world requirements for entrepreneurial competences, Relevant pedagogical approaches, Evaluating the digital teaching and learning skills of students and staff, and Learning design concept and tool. Below this, a grid of icons represents various learning resources: Learning resources, Evaluation and quality assurance, Delivery models of teaching and learning, and Further personal development. The main content area features a video player with the title 'Further personal development' and the EDES logo. Below the video, a 'Further personal development roadmap' is shown as a winding road with milestones: 'Further personal development resources', 'Final self-assessment', and 'Have your expectations been met?'. A paragraph explains that the module aims to serve as a guide for deepening knowledge on delivery modes and methodologies. At the bottom, a section titled 'TRANSCRIPTIONS' lists four items: 'H5P Further personal development', 'FEEDBACK Final self-assessment', 'FEEDBACK Have your expectations been met?', and 'PAGE Extra Resources Learning outcomes Videos (OPTIONAL)'. A folder icon labeled 'Transcriptions Videos' is also present. A Creative Commons license notice is at the very bottom.

Image 19: Further personal development Module Structure (source own elaboration)



The e-DESK Methodology guided the implementation of the MOOC course “Digital and Entrepreneurial Teachers for a Fast-Changing World” for HEI teachers, designed by the project. It gave a frame on how to create MOOC modules, selecting modules in hold and represent the modules logically in the MOOC. The methodology guarantees that MOOC users will get a wide and thorough understanding of digital and entrepreneurial skills teachers need in today’s world.

All e-DESK deliverables are an Open Educative Resource, free to use under a Creative Commons License, for individuals that want to develop their skills or, on an institutional level, to implement digital and entrepreneurial teaching in education. The e-DESK methodology aims to serve as a reference for educational institutions and educators all over Europe for designing, adapting, implementing and/or measuring hybrid educational programs and teaching methods.

This license it ´s indicated not only on the entry page of the MOOC in each platform, also at the end of each module, on the videos and reading materials produce by the consortium. In the other hand each partner used this type of license as a guide to select other external videos (external to the consortium) that use this same type of Creative Common license.

# Multimedia Material

For the development of the course, once the consortium plan and organize the content according with the methodology and creates the content the next step was to create the MOOC on the Moodle Platform, for that each partner developed a series of modules according with expertise and resources available.

As mentioned in the proposal of this project itself, all these materials were developed during the Covid-19 Pandemic, so seeking to organize and create valuable and useful materials, as well as a fairly uniform appearance, a recommendation guide was created. for recording videos to share with the partners, since each of them had to create, record and send the material due to the impossibility of traveling to the group of production experts, who carried out a task of unifying the style that are the final videos shown in the MOOC.

Next, we share this basic guide develop for the UC team as Annex I in this document.

Then the structure for the MOOC was decided and the materials developed as follow:

Using the project logos and templates developed by the partner in charge of the communication design so the header image follows this materials and advice on how to use it:



Image 20: Header Image for the MOOC (source consortium communication partner elaboration)

Once the team in charge of multimedia development, production and implementation received and / or record the materials for the videos, procced to create a base for the same with a short intro:

That contains the name and logo of the project, and the music selected for the it (not more that 10 seconds:



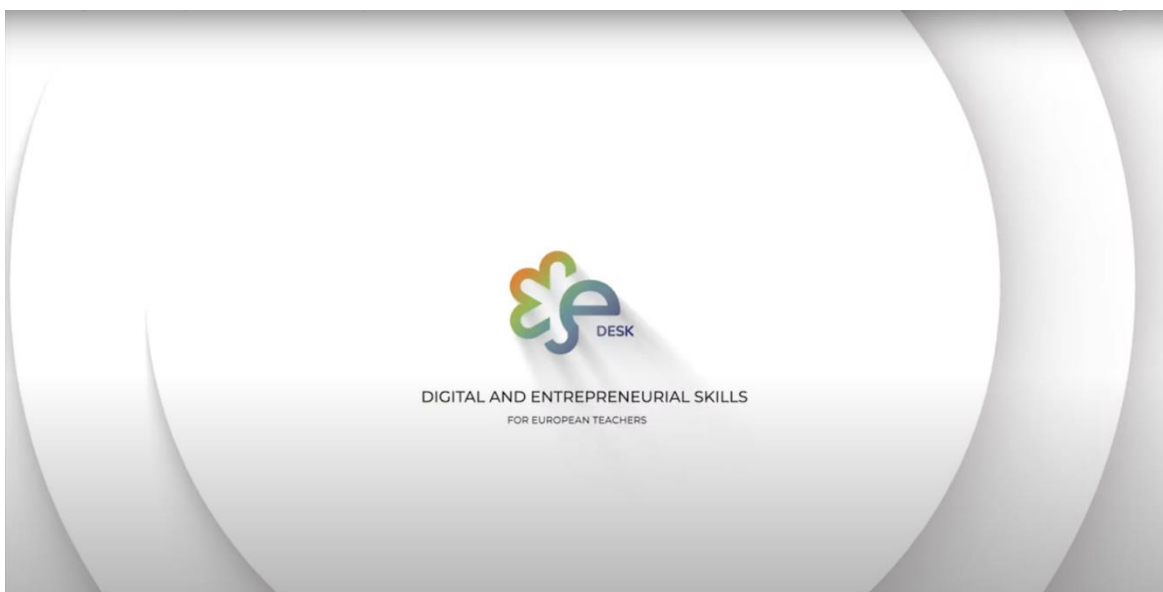


Image 21: Introduction of the eDesk videos (source self elaboration)

For the main video each partner presents their vision about the MOOC, the main goals for each module and present each partner institution.

For each of the modules it was important to have a video with a brief description and the goals one of them cover. For this it was important to present a common structure for the participants, that's why we select a person that appear in all the introduction videos for the modules and follow the same tone and vibe for it.



Image 22: e Desk main character for present each of the modules in the introduction videos (source self-elaboration)

Another thing to have in mind is that all the videos produced by the consortium follow the same structure:

- Short intro
- Main title
- Name of the person and the institution to which it belongs
- Close with consortium partners logo and indicating Creative Commons type of license.



Image 23: e Desk intro for each video (source self-elaboration)



Image 24: e Desk example of main title (source self-elaboration)



Image 25: e Desk example of Name of the person and the institution to which it belongs (source self-elaboration)



Image 26: e Desk example of the closed for the videos with partner logos and Creative Commons type of license  
(source self-elaboration)

For each Modules the structure was the same:

- Title
- Introduction video
- Roadmap
- Learning outcomes
- Tasks
- Subtopics
- Material for each subtopic
- Transcription of the videos
- Final Test (If needed)

### Competences, skills and values in general



Image 27: e Desk example of a title and intro video for a Module (source self-elaboration)

### Competences, skills and values in general roadmap

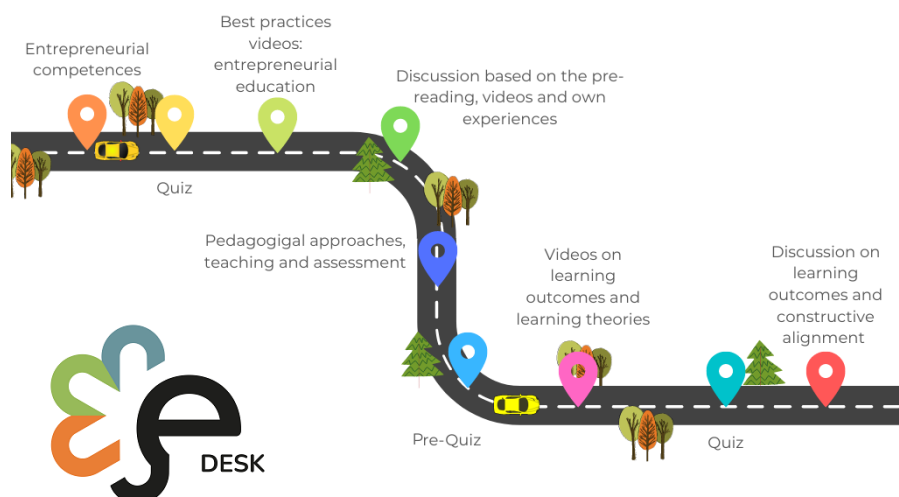


Image 28: e Desk example of a roadmap (all modules use the same structure for this) (source self-elaboration)

## LEARNING OUTCOMES

After completing this module, participants will be able to:

- Identify what entrepreneurial competences students need in the contemporary world to seize and create opportunities and meet challenges to generate value.
- Describe pedagogical approaches, teaching and assessment methods that enhance students' engagement to develop students' entrepreneurial competences in online learning environment.

## ENTREPRENEURIAL COMPETENCES

First, we are going to take our first steps into entrepreneurial education and entrepreneurial competences. Here you will find some reading and best practices video examples. Then, we would like you to discuss with the rest of the participants about the topics seen in these materials.

### YOUR TASKS

Here you will be first asked to go through a written document including some theory and basics about entrepreneurial education, as well as some examples of application of this approach in the educative institutions. Afterwards, you will test your knowledge about the reading and pass to the best practices examples. These examples aim to show you real cases where entrepreneurial education is included in the university campus. Finally, you will have the chance to debate, share experiences and comments about what you have seen with your colleagues.

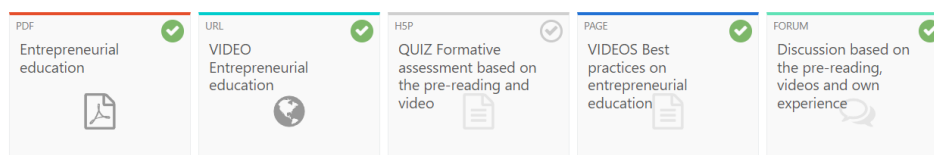
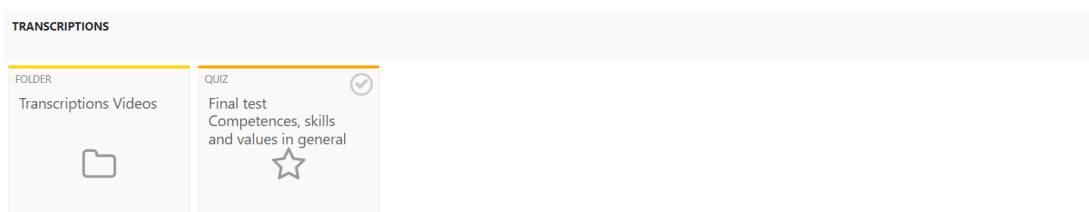


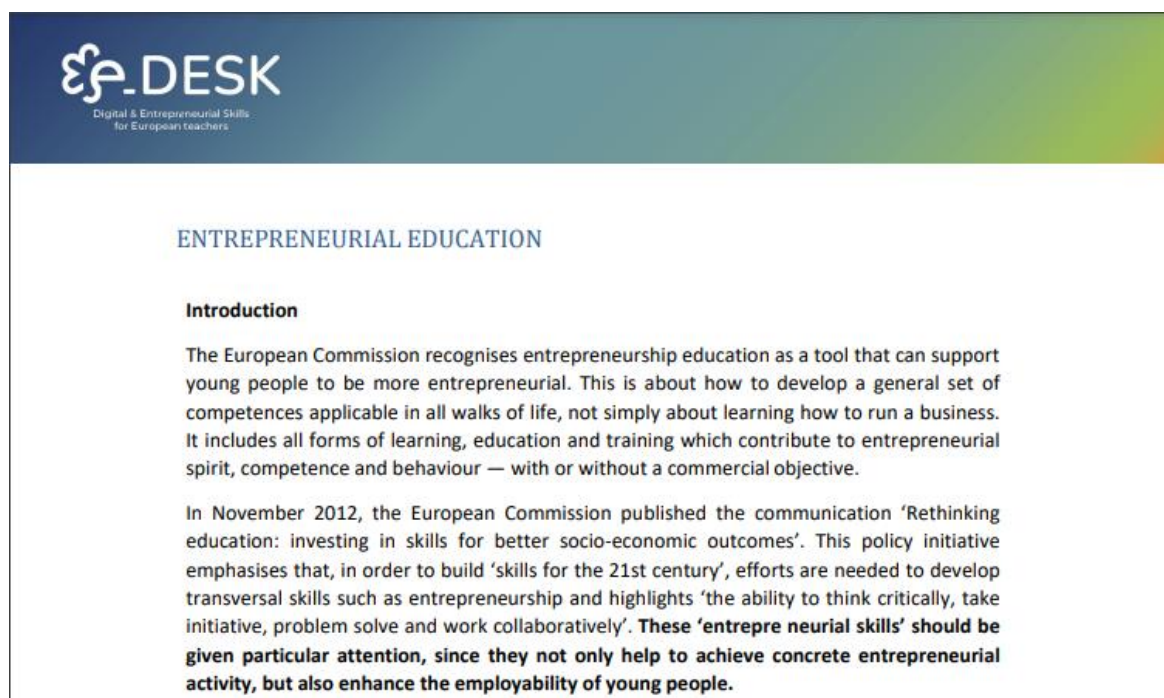
Image 29: e Desk example of Learning outcomes, tasks, subtopic and activities / materials (source self-elaboration)



All the materials available within this MOOC have been prepared in line with the Creative Commons licence (CC BY NC SA).

Image 30: e Desk example of transcriptions, final test and Creative Commons type of license.

Also, the reading materials was created using the same template following the project image design:





# ANNEXES

## Annex 1. BASIC GUIDE TO RECORD VIDEOS



### INTRODUCTION

In the last years, the use of audio-visual resources has increased to enrich and improve pedagogic methodologies, especially those applied to hybrid and online teaching.

Video resources are by far the most used, either in synchronous format through video calls, as well as asynchronous with videos recorded and uploaded in the different virtual learning environments (VLE).

This document intends to be a practical guide to recording those videos created specifically for online teaching, aiming to be more than just a recording of a traditional teaching session. This guide describes the steps to follow and the factors to take into account to record this type of videos.



## FIRST STEPS

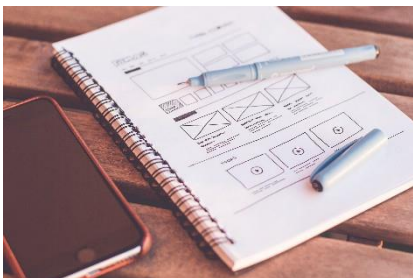
### PLANNING

This is the most important step since it allows us to define what type of video we want to make, the topic and duration. The suggested process would be:

1. Choosing the topic.
2. Preparing a script about what is going to be recorded.
3. Selection of multimedia resources: images, audio, documents, etc.
4. Selection of recording material: type of camera, computer, microphone, etc.
5. Stablishing the location (where the recording will take place).
6. Lightning: natural, artificial, placement to avoid shadows, etc.
7. Participants: whether it is a first-person self-recorded video or there will be more professionals involved.
8. Timing: starting with the script, it is important to define specific times, and try to make the video as short as possible: it is better to have several brief videos than a very long one.



## GUIDELINES FOR VIDEO RECORDING



### Choosing the main topic

It is important to be clear about what topic we want to make the recording of our video. For this, we recommend to make a small outline where we define the main topic and the subsections that we could address in said video. In addition to defining the resources (other videos, images or files) necessary for the explanation of each one, and its logical sequence.

### Recording material

When we produce a video, the content (*what I want to say and how I am going to say it*) should undoubtedly prevail. Once this point is established, it is important to choose the appropriate material means to fulfil our objective. Below, we describe the most common scenarios and some minimum specifications to record videos for teaching.



- a) *Professional video camera.* In this aspect we are talking about a professional video camera that could cover the following formats 4K60, 2.7K, 1440p, 1080p 960p and 720p. Within the means of recording, it is important to bear in mind that despite the fact that the camera is the resource in which we have to incise the most in terms of quality, factors such as the sound quality it has, as well as the options of lighting settings that it offers us also come into play. For this reason, it is important to take into account some basic questions when choosing the equipment, such as:

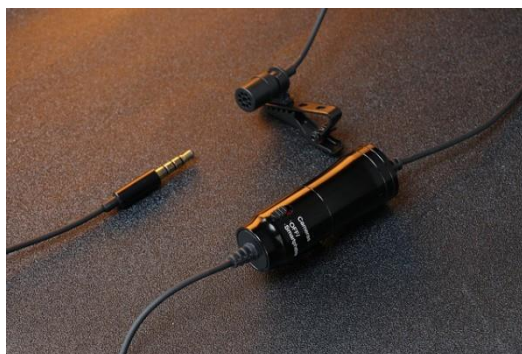


- a. **Camera focus:** That is, if it has programmable autofocus or manual focus options to offer a better image of the person in the video.



- b. **Lighting:** If the recording is done in a physical space with good lighting or we have other devices such as lamps or lighting rings, previously equipped with good light.

- c. **Audio:** It will always be better if we record the audio with professional equipment that gives it high quality, such as a *lavalier* microphone; or with the noise reduction option, which will allow better voice quality and reduce surrounding noise.





*b) Mobile or Tablet:* As in the previous section, it is important to take into account that in addition to the equipment there are factors that determine the quality of the video or photography made with these devices, such as lighting. The lenses and sensor should at least have 64 mpx.

*c) Computer using a webcam:* 1080px minimum.



## Measurements

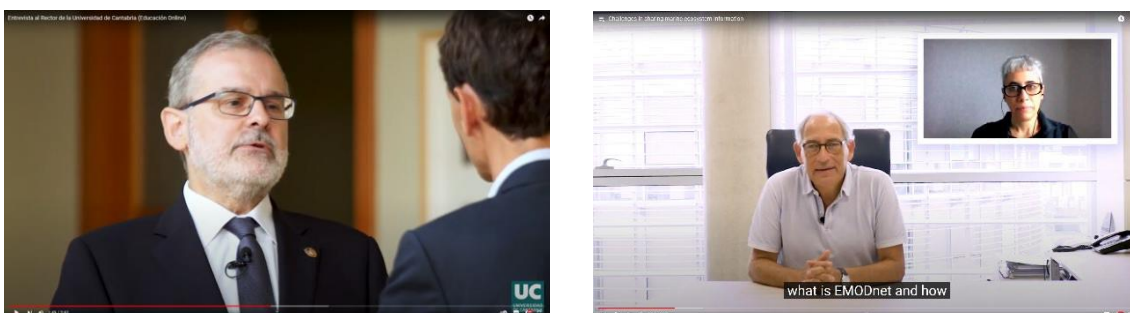
XAVC HD, HDV 1080p (1920 x 1080px - 50Mbps).

### Quality:

- As much as possible, both in image and audio (according to the measures indicated above for both video and audio).
- Video in HD at least.
- The ISO well adjusted, to avoid noise and other problems.
- Preferably, use a microphone to guarantee good quality audio.
- Avoid in the image: gradient backgrounds, pixelated or noisy images, backlights...
- Avoid in the sound: environmental noise, transit areas with a lot of traffic, windy exteriors, works...

## Format

- Speaker explaining to the camera, without staring at it.
- Interview: a person next to the camera without being seen acts as an interviewer, asks the questions and the speaker answers. In this case, in the final video, the voice of the one who asks the questions does not appear, since it is cut in the edition. Other way could be, two independent recordings looking at the camera and their subsequent assembly through a video editing program.



Example of interviews.

## Composition

Main subject in 1/3 of the screen space, not in the center, always on the right or left, to be able to include in the remaining space the required resources: pictures, graphics, another video feed, etc. The presenter must appear from the torso upwards, whether standing or sitting.



Composition example.



## Background

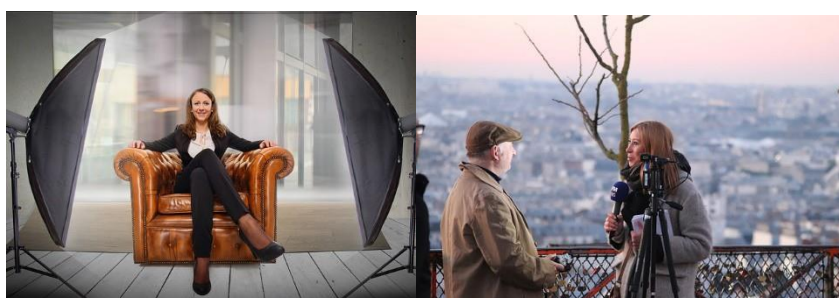
- Office, outdoor space, university or office corridors... Always guaranteeing good quality in audio and lighting. Not very crowded areas are a better option to avoid interruptions, noise, etc.
- The use of Chroma key backgrounds is also acceptable.



Chroma example.

## Lighting

Preferably natural light. In case of shortage of it, support with extra artificial light, such as spotlights: not aimed directly, projecting the light, trying to make it natural and soft.



*Maximum Duration:* 6 minutes.

## TIPS

- Make a storyboard or script with the structure, before recording.
- Look at the same point, in the case of the interviewer (if the talking head is on the left, it should look to the right and vice versa).
- Emphasize.
- Use, as far as possible, signs of expression, such as moving your hands, to give dynamism to the video (without forcing them).
- In moments of error, the speaker must maintain a calm posture, remain silent and continue looking at the camera and return to the explanation. This allows for better editing, with cuts that are more natural.
- If the speaker is shy or has problems being recorded (not uncommon) using the “fake interview” format usually helps: provides somebody to talk to, that can reassure him or her, and makes the situation more natural than “staring to the black eye of a camera”.
- When the exposition is very long to comment on the speech, make segmented recordings.
- Try to make the videos as natural as possible.
- Focus the objective of the videos on the understanding of concepts of greater difficulty and complexity, and relevant to the topic addressed.
- As we have already mentioned in the previous section, a maximum duration of 6 minutes is recommended, although if the duration were to be a little longer (for example 10 minutes) it could only be justified by its relevance to the topic and the consistency it provides to the video for such a long duration. In the case of longer videos, they will be divided into capsules of a maximum of 10 minutes, making the cuts by concepts or topics addressed within it.
- In the same way, it is recommended to be clear about what concept or concepts will be addressed in the video to try to reduce its duration as much as possible, and provide said data for a cleaner edition. If further detail is needed and it would make the videos too long, it can be supplied in text format together with the videos.
- As a didactic recommendation, a small recount of concepts is proposed at the beginning of the video for its subsequent development within it.
- It is important to provide extra material that is relevant, necessary and enriching for the videos, such as questions integrated into it.

## VIDEO STRUCTURE

### Cover/Intro

With information regarding:

- The title of the course (with the logos).
- The module title.
- The title of the activity.



Usually it is a good idea to have a single video production person or service make all the intros for all the videos of the same course, to provide uniformity across all of them. Or at least have very good coordination and understanding among all the parts involved.

### Video play beginning

With the name of the expert and the organization to which he/she belongs.



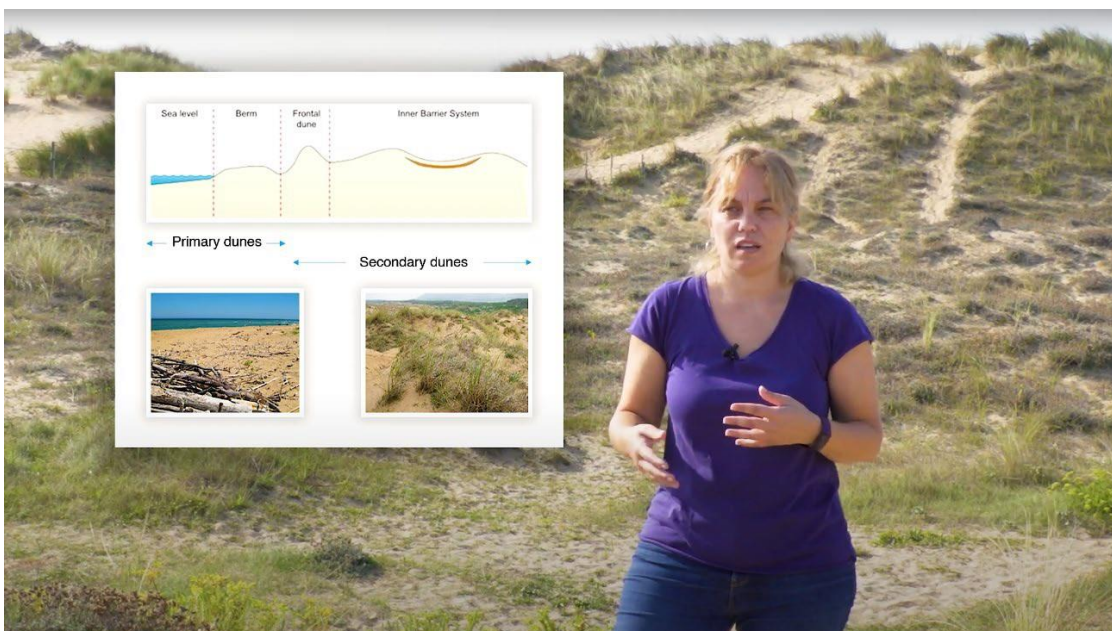
## Video play

With the logos below in reduced size, appearing at all times throughout the video.



## Use of visual resources

Screen-readable text that, for example, appears with the question in the case of interview format. Also images, graphics, animations, etc.





## Logos and license types

Finally, at the end, the logos and the Creative Commons license are included.



## Attribution, acknowledgement, and recognition

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