Co-funded by the
Erasmus+ Programme
of the European Union

e-DESK

Digital & Entrepreneurial Skills
for European teachers

Digital and Multimedia MOOC guide

CISE Centro Internacional Santander Emprendimiento UCEIF
UC Universidad de Cantabria
Editorial Universidad Cantabria
foi University of Zagreb Faculty of Organization and Informatics Varaždin
LUT Lappeenranta University of Technology
NOVA University Lisbon

DIGITAL AND MULTIMEDIA MOOC GUIDE

INDEX

e-DESK MOOC 4
Introduction. The e-DESK MOOC 4
OVERVIEW 5
STRUCTURE OF THE MOOC 12
MOOC Entry Page 12
Header of the MOOC and Video introduction: 16
Introduction 17
Competences, skills and values in general 19
Developing entrepreneurial competences 21
Real-world requirements for entrepreneurial competences 23
Relevant pedagogical approaches 25
Evaluating the digital teaching and learning skills of students and staff 27
Learning design concept and tool 29
Learning resources 31
Evaluation and quality assurance 33
Delivery models of teaching and learning 35
Further personal development 37
Multimedia Material 40
ANNEXES 47
Annex 1. BASIC GUIDE TO RECORD VIDEOS 47
INTRODUCTION 47
FIRST STEPS 48
PLANNING 48
GUIDELINES FOR VIDEO RECORDING 49
Choosing the main topic 49
Recording material 49
Measurements 51
Quality: 51
Format 52
Composition 52
Background 53
Lighting 53
TIPS 54

VIDEO STRUCTURE 55
Cover/Intro 55
Video play beginning 55
Video play 56
Use of visual resources 56
Logos and license types 57

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.

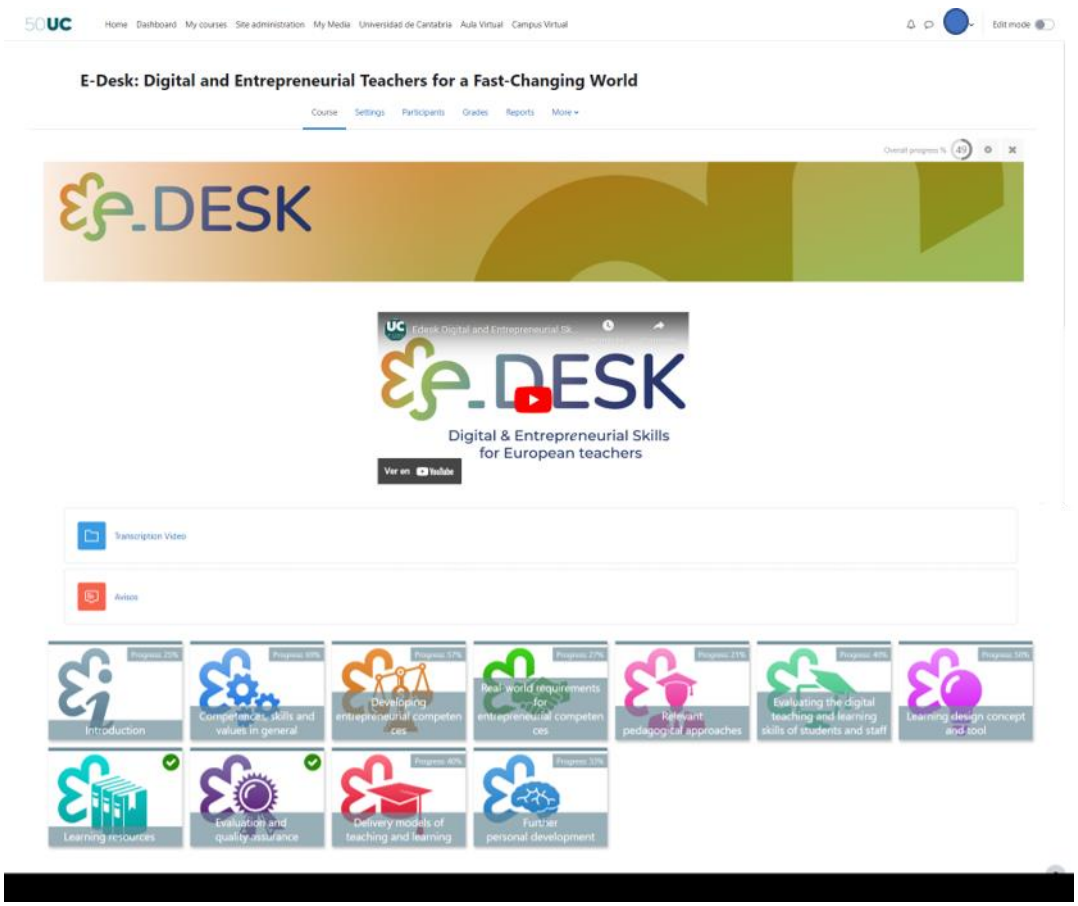


Image 1: MOOC e-Desk on University of Cantabria Virtual Classroom platform (source own elaboration)

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** [1]: 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**[2]: 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.

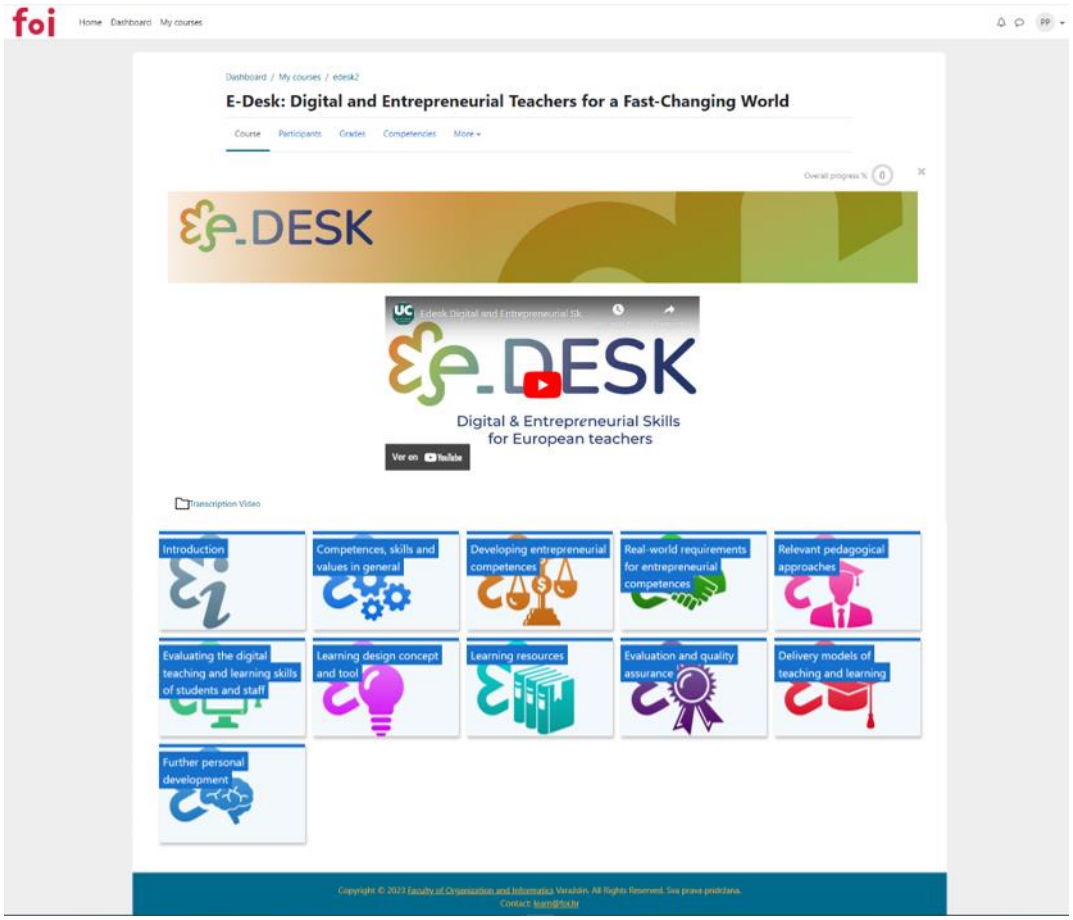


Image 3: MOOC eDesk on FOI platform (source own elaboration)

[1] More information available on: https://moodle.org/plugins/format_tiles
[2] 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.[3]

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.

[3] More information available on: https://www.nau.edu.pt/en/about/

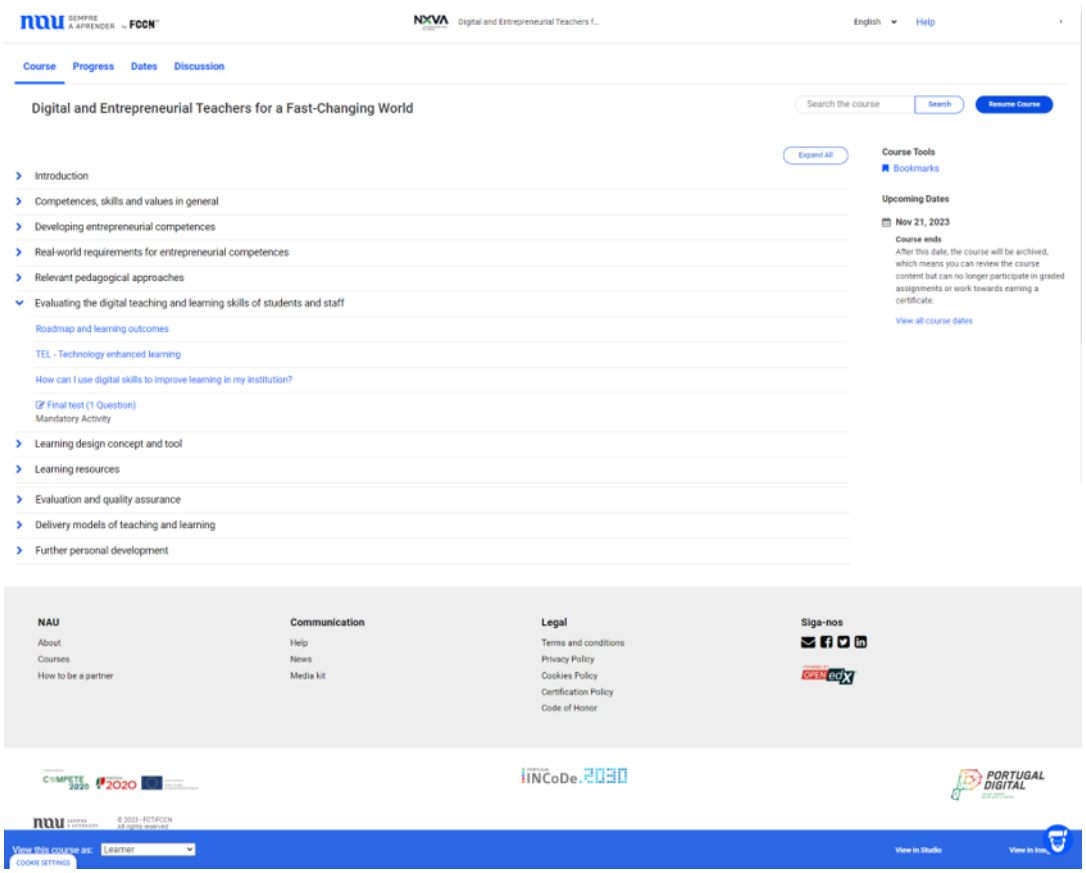


Image 4: MOOC eDesk on NAU platform (source own elaboration)

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:

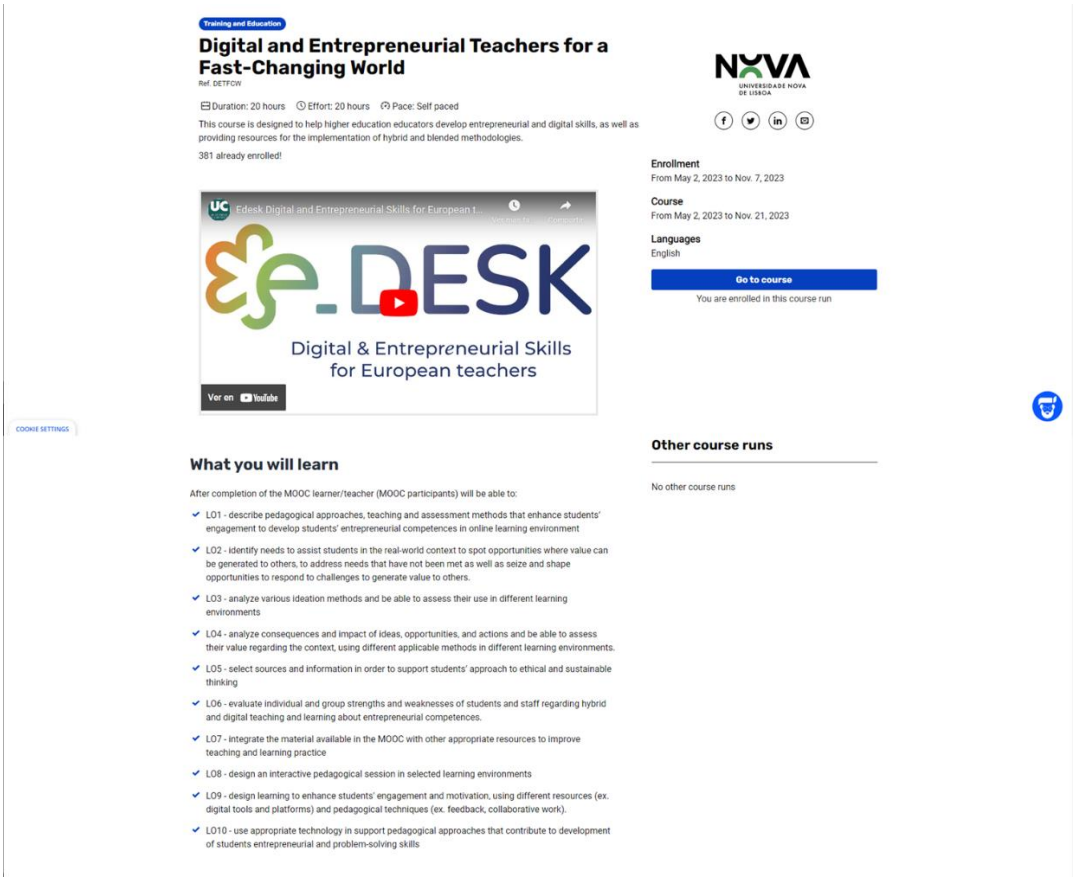


Image 5: MOOC eDesk on NAU platform Entry Page example (source own elaboration)

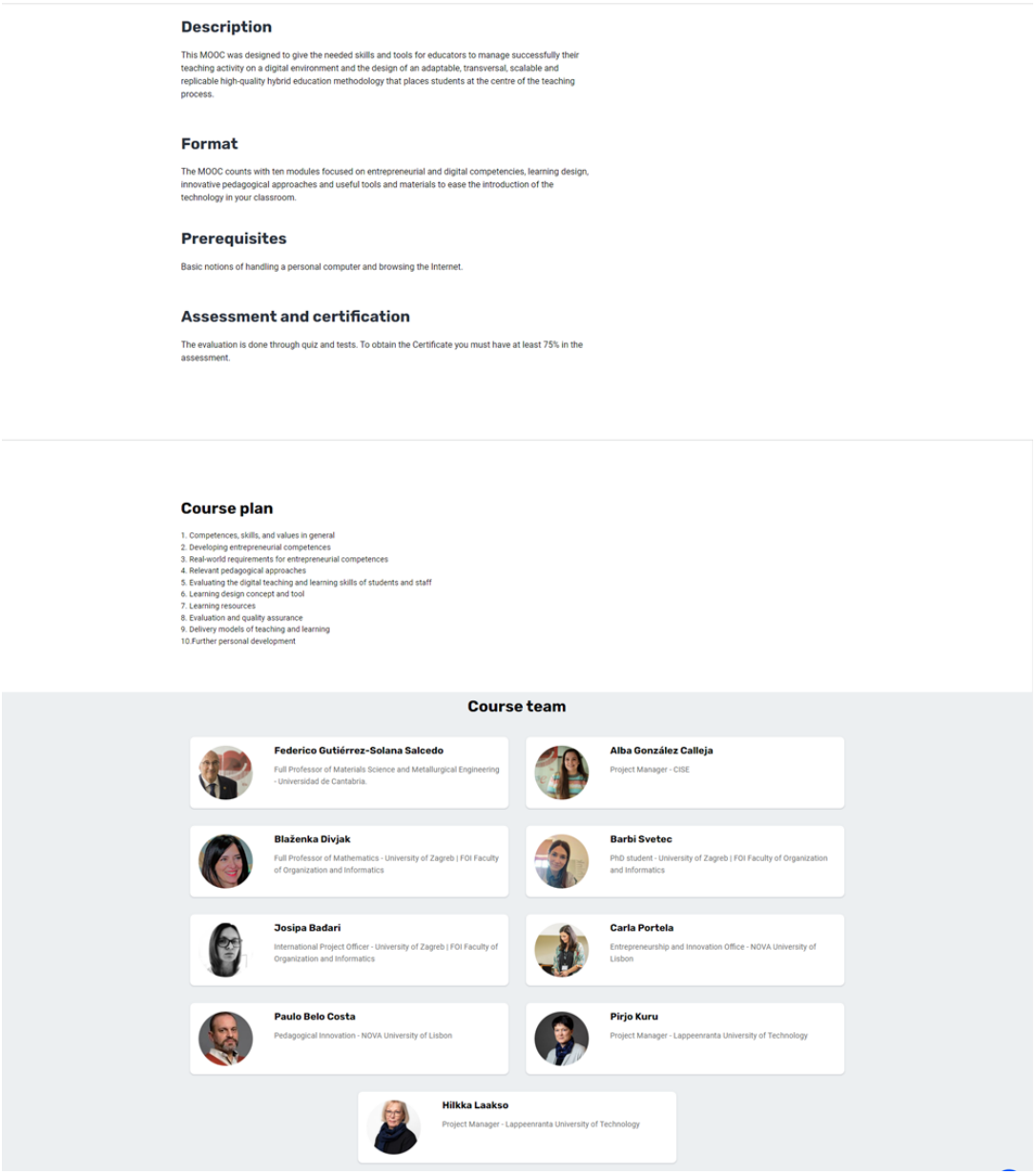


Image 6: MOOC eDesk on NAU platform Entry page second part entry page (source own elaboration)

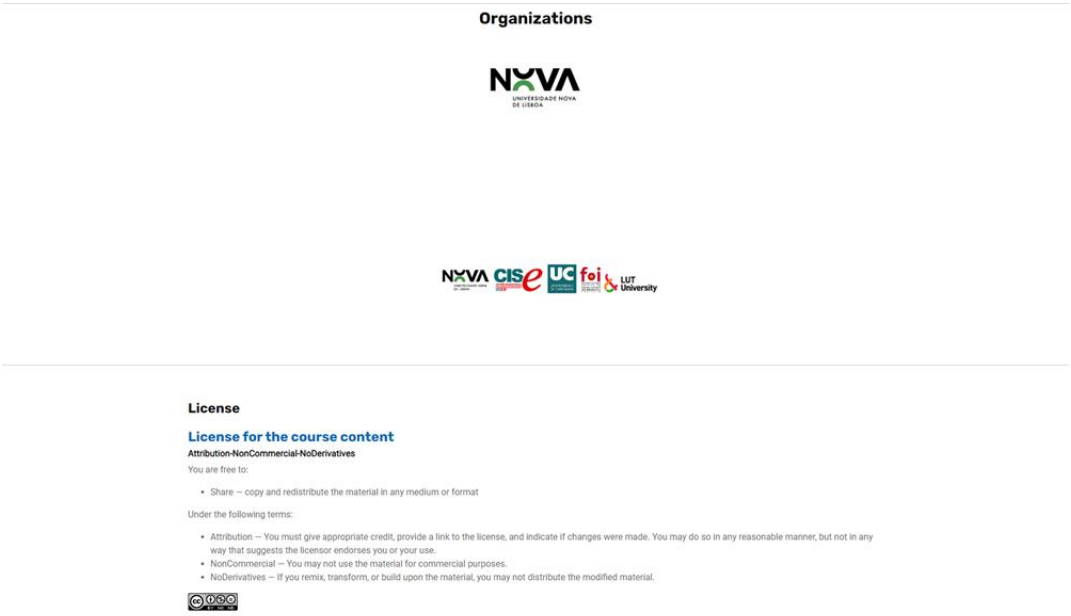


Image 7: MOOC eDesk on NAU platform Entry page third part entry page (source own elaboration)

The structure of the MOOC modules is as follows:

Header of the MOOC and Video introduction:

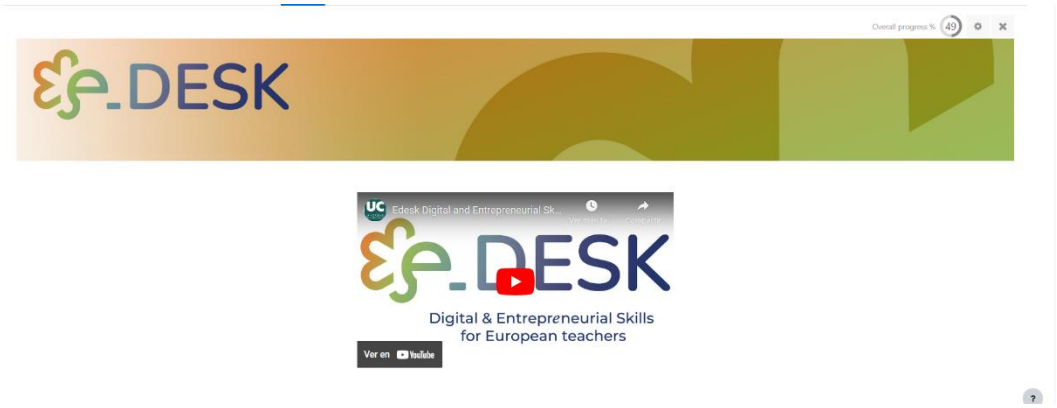


Image 8: Header and video introduction. (source own elaboration)

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
- 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

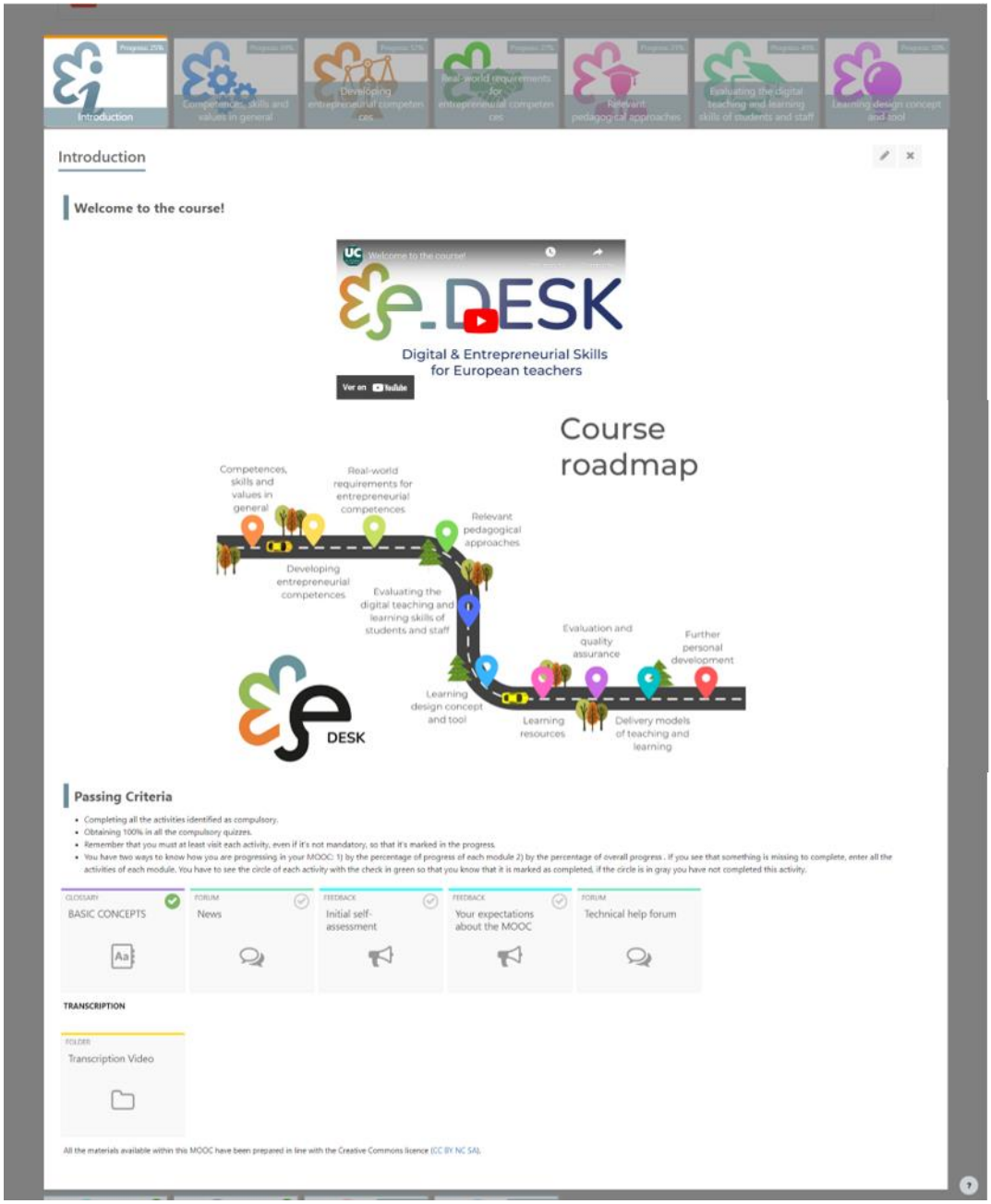


Image 9: Introduction Module Structure (source own elaboration)

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

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
  - EntreComp Europe resource website (materials translted 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

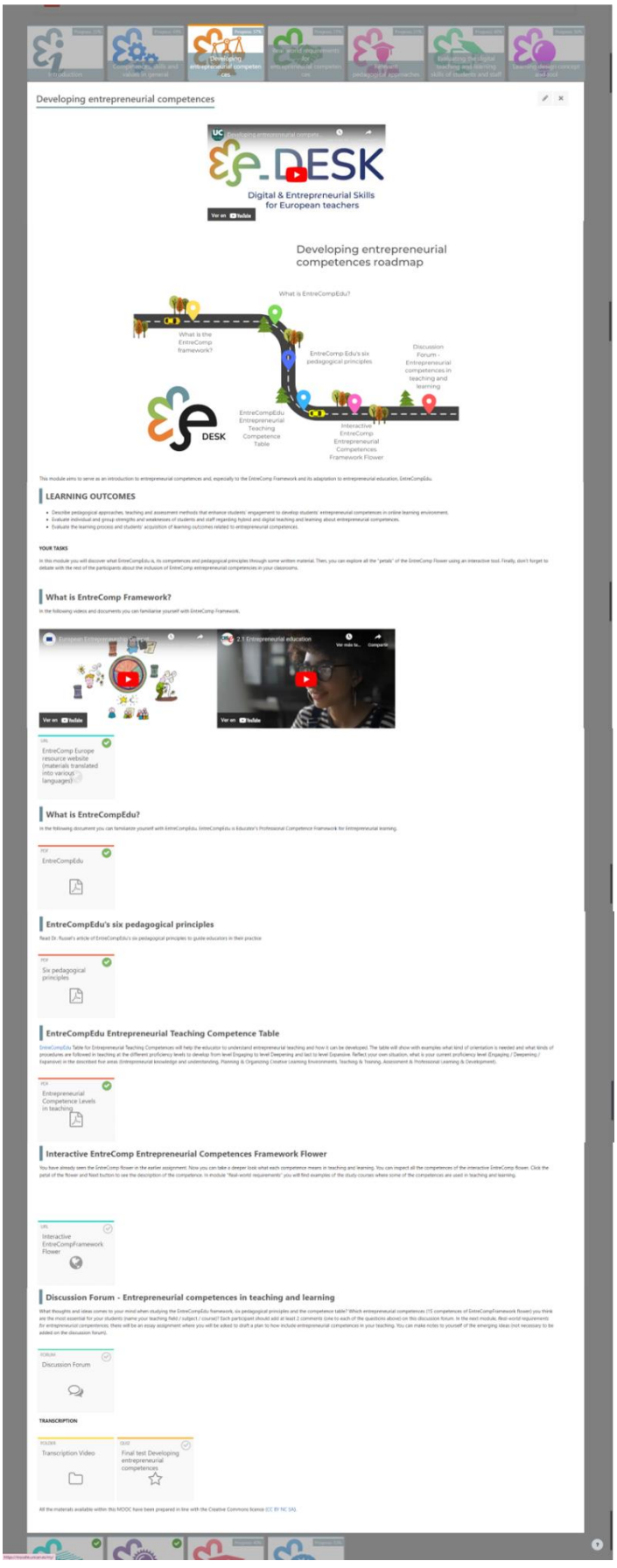


Image 11: Developing entrepreneurial competences Module Structure (source own elaboration)

Real-world requirements for entrepreneurial competences

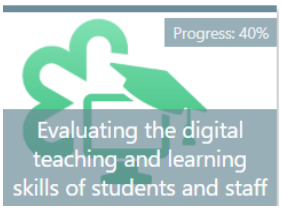
- Real-world requirements for entrepreneurial competences introduction video: https://youtu.be/dMGmyUbMSfk
- Roadmap
- Learning Outcmes
- Your Tasks
- OECD Learning Compass 2030 - The future of learning
  - VIDEO. OECD Future of Education and Skills 2030: OECD Learning Compass 2030: https://youtu.be/M3u1AL_aZjI
  - 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 repot
- 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/vQOl9VSQzko
- 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

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
    - 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
    - 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/IdZgOFXcV90
    - 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

Image 13: Relevant pedagogical approaches Module Structure (source own elaboration)



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
- 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/ArI6albrkuY
- FORUM: Improve learning at Institutional level
- Transcriptions
- Final test Evaluating the digital teaching and learning skills of students and staff

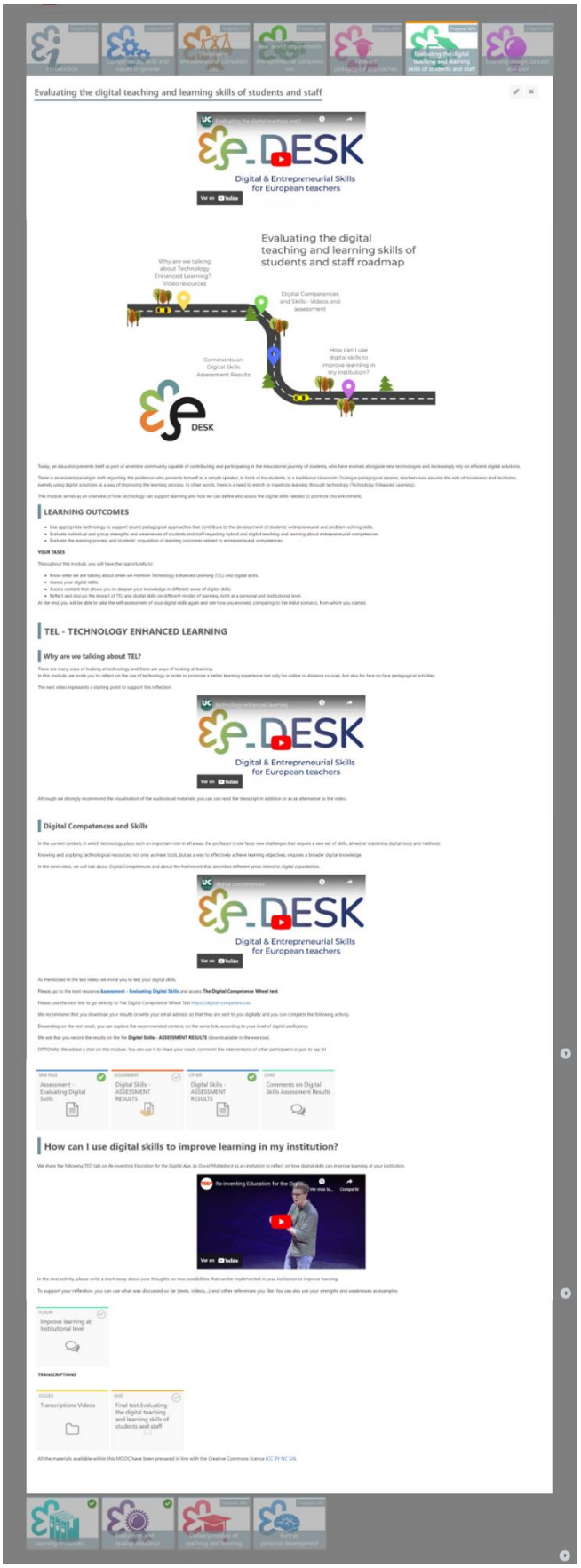


Image 14: Evaluating the digital teaching and learning skills of students and staff Module Structure (source own elaboration)

Learning design concept and tool

- Learning design concept and tool introduction video: https://youtu.be/2CrevICVF2I
- 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/DvxHIDl343E
    - VIDEO: intro tutorial for the BDP tool prepared for the E + RAPIDE project part 2: https://youtu.be/-a8EbI6jLrM
    - 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
- Practice & peer-assessment
    - WORKSHOP: Workshop on Learning Design
- Transcriptions
    - Transcription of the videos in this module
- Final test Learning Design concept and tool

Image 15: Learning design concept and tool Module Structure (source own elaboration)

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
- 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

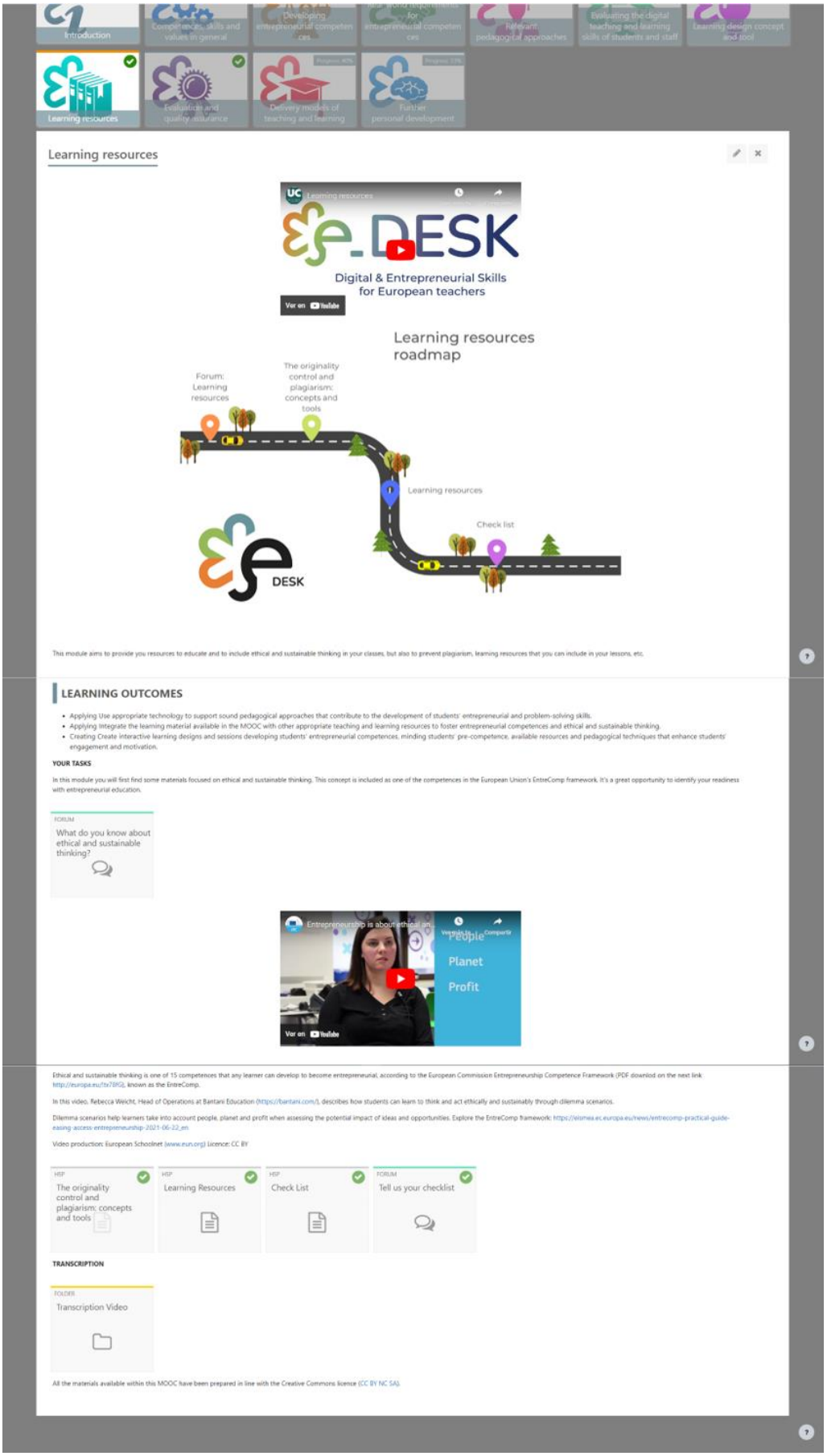


Image 16: Learning resources Module Structure (source own elaboration)

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

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
- 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

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=VaR461va_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

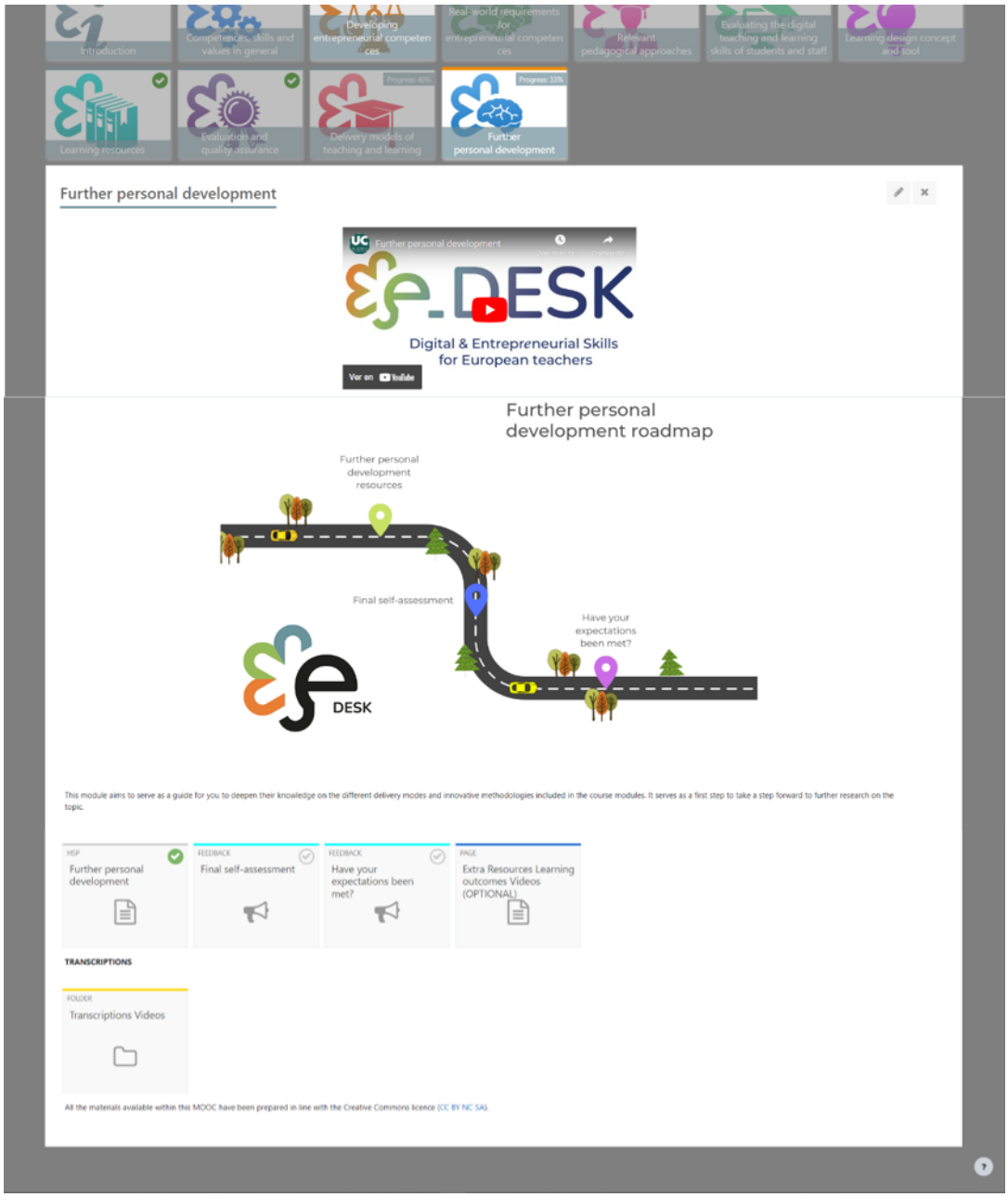


Image 19: Further personal development Module Structure (source own elaboration)

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 vison 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)

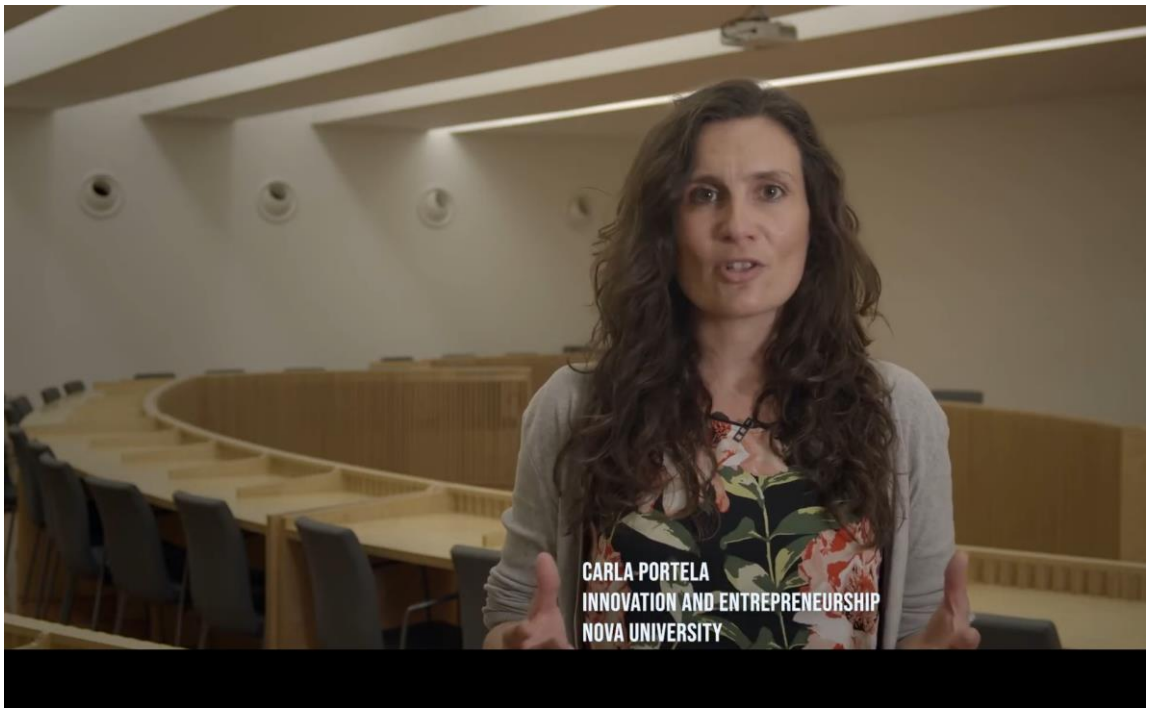


Image 25: e Desk example of Name of the person and the institution to which it belongs (source self-elaboration)

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)

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

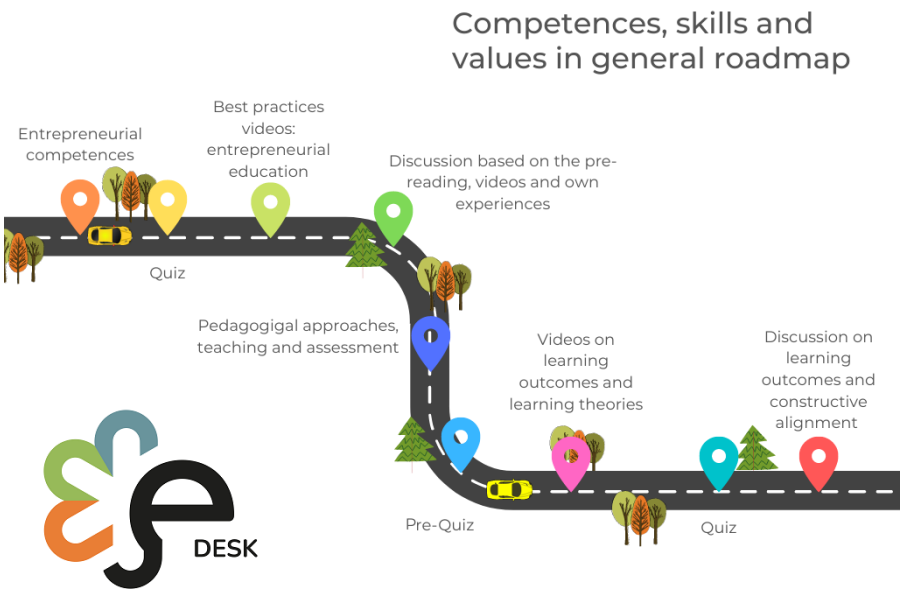


Image 28: e Desk example of a roadmap (all modules use the same structure for this) (source self-elaboration)

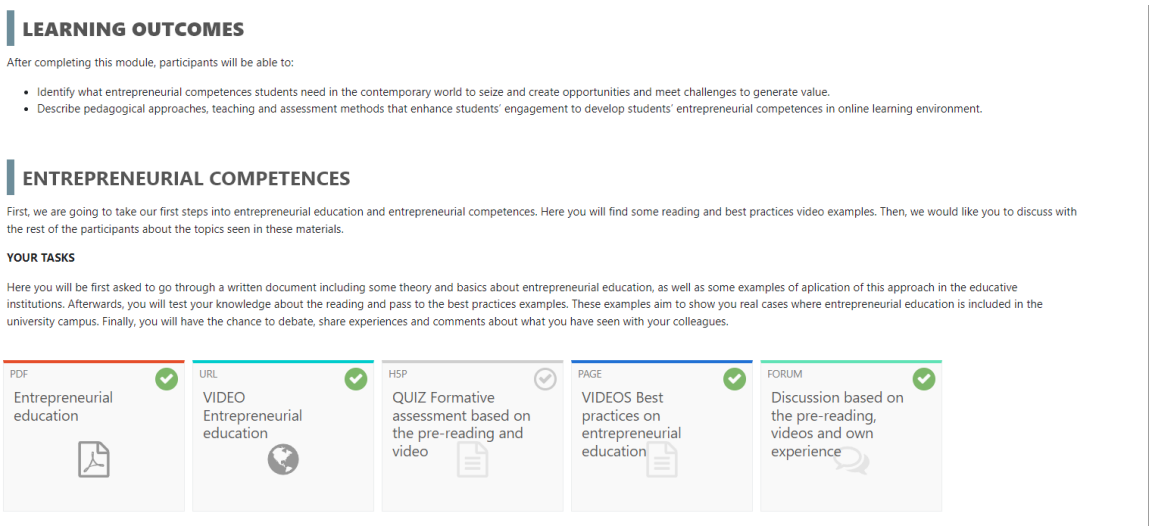
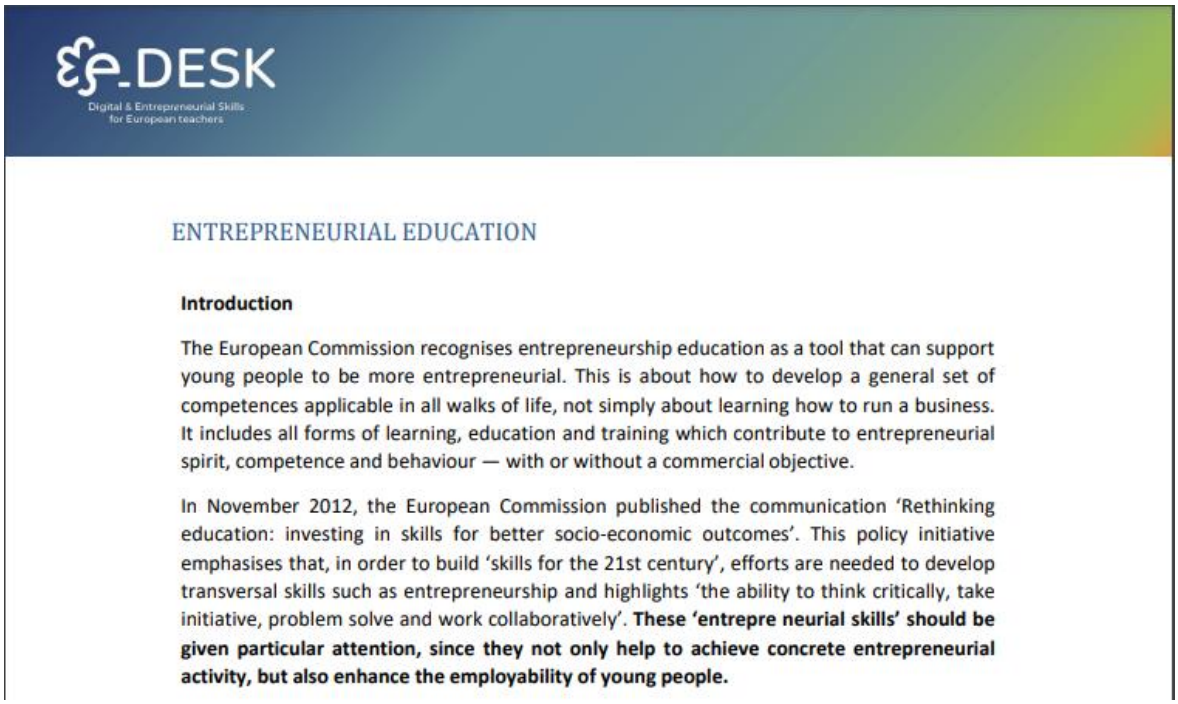


Image 29: e Desk example of Learning outcomes, tasks, subtopic and activities / materials (source self-elaboration)

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.

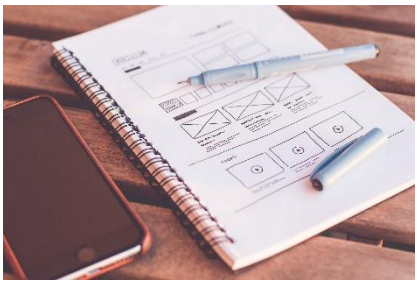
FIRST STEPS

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:

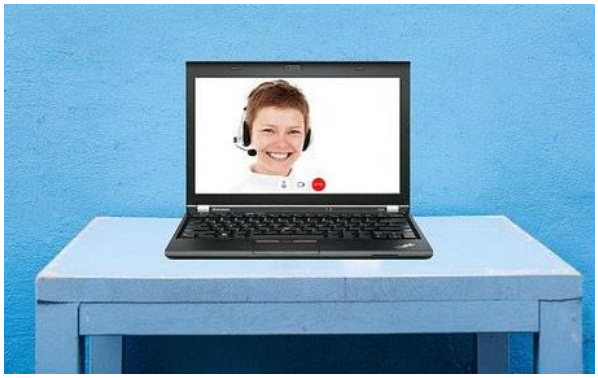
a. **Camera focus:** That is, if it has programmable autofocus or manual focus options to offer a better image of the person in the video.

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 requiered 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

This publication is part of the e-DESK project, led by the Centro Internacional Santander Emprendimiento (CISE) and co-funded by the European Union, through the Erasmus+ program. This document was coordinated by Universidade Nova de Lisboa as part of the e-DESK Project.

***Authors**: This publication has been written and collated by University of Cantabria on behalf of the e-DESK project with contributions gratefully received from all other partners of the e-DESK Project: Centro Internacional Santander Emprendimiento (CISE), Faculty Organization and Informatics of the University of Zagreb, Lappeenranta-Lahti University of Technology and Universidade Nova de Lisboa*

***Lead authors:** Ivan Sarmiento (University of Cantabria), Priscila Parra (University of Cantabria)*

DOI:

***Information:** info@edeskeurope.eu, www.edeskeurope.eu*

Disclaimer

Although every effort has been made to provide complete and accurate information, e-DESK and its consortium partners make no warranties, express or implied, or representations as to the accuracy of content in this document. Neither e-DESK, nor any organization or person acting on its behalf can be held liable or responsible for any error or omissions in the information contained in this publication or for any use that may be made of the information contained in this publication. Online links provided were up-to-date in June 2023. Neither e-DESK, nor any organization or person acting on its behalf can be held liable or responsible for any damage resulting from the use of the links, or for the accuracy, legality or content of the websites. The work presented on this document has received funding from the Erasmus+ program of the European Union (Gran agreement N. 2020-1-ES01-KA226-HE-096244.). The European Commission's support for the e-DESK project does not constitute an endorsement of the contents, which reflect only the views of the project partners. Therefore, neither the European Commission nor any parties acting on behalf of the European Commission can be held responsible for the use that might be made of this publication.

This methodology was created by the e-Desk – Digital and Entrepreneurial Skills for Teachers project, within the ERASMUS+ programme.

e-DESK
Digital & Entrepreneurial Skills for European teachers

Co-funded by the Erasmus+ Programme of the European Union

CC BY NC ND

ogy was created by the e-Desk – Digital and Entrepreneurial Skills for Teachers project, within the ERASMUS+ programme.