CIVIS guidelines to create digitally enhanced courses

A student-centered approach

February, 2024

Deliverable title	Guidelines on use of Digital Campus Moodle to create digitally enhanced courses
Deliverable number	Milestone 8.6
Delivery date	February 2024
Version	1
Work package	WP8 Embedding Shared Educational Offer
Dissemination level	Public

This report was produced for CIVIS by:

- o Anisoara Dumitrache
- o Enrique Martín Santamaría

Project number: 101089983

CIVIS, Europe's Civic University Alliance, is a European University Alliance gathering 11 member universities: Aix-Marseille Université (France), National and Kapodistrian University of Athens (Greece), University of Bucharest (Romania), Université libre de Bruxelles (Belgium), Universidad Autónoma de Madrid (Spain), Sapienza Università di Roma (Italia), Stockholm University (Sweden), Eberhard Karls Universität Tübingen (Germany), University of Glasgow (UK), Paris Lodron University of Salzburg (Austria) and University of Lausanne (Switzerland).

Selected by the European Commission as one of the first 17 European Universities pilots, it brings together around half a million students and more than 70 000 staff members, including 37 400 academics and researchers.

In 2022, CIVIS signed a partnership agreement with 6 strategic African partner universities: Université Hassan II de Casablanca (Morocco), University of Sfax (Tunisia), Université Cheikh Anta Diop de Dakar (Senegal), Makerere University (Uganda), University of the Witwatersrand (South Africa), Universidade Eduardo Mondlane (Mozambique).

Table of contents

Introduction

"Hybrid classes", "video conferencing", "gamification", "collaborative tools". The list of terms related to digitization that have entered the everyday language of teachers is almost endless. To a greater or lesser extent, almost all of them use learning management systems to share material, communicate with their students and evaluate their performance. Today those are familiar words to everyone, but it was not so long ago. The sudden need to continue courses remotely during the pandemic accelerated a process that would have occurred more gradually. This may have had a positive aspect: in only two years, almost all teachers, even those who would have been more reluctant to do so, became capable of using digital tools for educational purposes. But it certainly had a negative one: the changes were made in such an accelerated manner that has barely allowed us to take enough distance, as a society, to decide what the digitization of education is, or should be.

Despite all the questions about the impact that digitization may have on teaching and learning, there is one thing that nevertheless seems undeniable: this process does not have to do (or not essentially) with the use of gadgets that allow us to reproduce the dynamics of the on-site class, but with the very social and cultural impact that digital technology has on our lives. Three examples may serve to illustrate the idea. First, the forms of social interaction, which, as a result of the popularization of the use of smartphones and internet connectivity, are increasingly spontaneous, global and multimedia. Second, the way of acquiring and processing information, which, following the very logic of the internet, is more fragmented and visual today than it was before. Third, the fact that people are no longer mere consumers, but also producers of information to be shared with their social networks.

This change of habits, which particularly concerns the young population, is not disconnected from the learning spaces. The development of new forms of communication, the globalization of cultural referents and the overwhelming amount of information to which students are exposed, only to mention some of them, have an inevitable impact on the classroom ecosystem. In order to reduce risks and enhance potential learning benefits, it is necessary to integrate this reflection into the design of the courses themselves, as it can raise essential pedagogical questions: should the multiplication of information sources, many of which are not reliable, change the role of the teacher in the classroom? Should the irruption of artificial intelligence change the way in which student performance is assessed? Can the possibility to communicate beyond geographical borders be used with a positive learning impact? How can a teacher take advantage of the learners' ability to produce and share content in social networks? And how does all this change the traditional role of the classroom itself, traditionally understood as the space where learning occurs?

This does not mean that technology should be introduced into the classroom in an uncritical manner. The fact that society is progressively moving towards a digital culture does not imply that the use of digital resources has a positive impact on student learning. The risks that digitalization entails in terms of data protection, reliability of information, loss of student attention and even sustainability are well known. However, it seems clear that the classroom space should not remain oblivious to what is certainly a major cultural shift. The European universities alliances represent a unique opportunity to collectively reflect on what this process should involve. On the one hand, because of their international composition, which ensures that experts from different national realities and backgrounds consider not only pedagogical factors, but also social, technical and political ones. On the other hand, because these alliances also work as platforms for experimentation that allow for testing formats, approaches and tools that explore how to use digital elements in an effective way.

CIVIS is a good example of this. One of the main initial objectives of the alliance was to develop an educational offer that would promote physical mobility among students, academics and staff. However, COVID-19 imposed a reality that obliged the academics, as well as the pedagogical support teams, to

adapt courses that had been designed for a face-to-face format. This is the context in which the CIVIS Moodle was launched, in order to facilitate the digital component of the alliance's courses and programmes (Martín & Touzot, 2022). Four years later, and with more than 300 educational activities behind, we want to share what we have learned along the way. This document provides guidelines that, hopefully, will allow CIVIS academics to develop courses and programs in which digital is used for the benefit of the student.

The first section, entitled "Pillars of digitally enhanced teaching", describes the particularities of digital and hybrid formats with respect to face-to-face teaching, about the new roles of teachers and students focusing the pillars of digitally-enhanced learning. The second section, "Creating online courses: an instructional design approach" focuses on the essential aspect of designing a course in which digital resources are at the service of the learning objectives. To this end, a short guideline is provided to ensure the coherence of the course from needs analysis to evaluation. The third section, "The co-creation of digital enhanced courses" revolves around the collaborative aspect of designing and implementing a course. It should be remembered that any educational activity organized in CIVIS must be coordinated by at least three universities, which means academics from at least three different countries and, very often, different disciplines. In this section we share some conclusions of this experience during the last few years. The fourth, "CIVIS Moodle: instructions for a digitally enhanced course" integrates all the previous reflections and provides some indications on how to use the platform at the service of the student learning. Finally, the section called "CIVIS support to strengthen the digital component", presents the CIVIS roles and bodies that could support academics who wish to design and implement digitally enhanced educational activities.

Pillars of digitally enhanced teaching

Digitally enhanced learning has multiple advantages when used in a coherent learning framework, with ICT tools used to enhance teaching and learning. The advantages start from the increased level of accessibility to educational resources and information to interactive engagement, personalized experience, virtual mobility and finally to an "university without walls". In a well-structured learning framework, ICT facilitates anytime, anywhere access to educational resources, breaking down traditional barriers to learning. Virtual mobility and its dimensions were previously explored in CIVIS, and the handbook on virtual mobility (Iucu et al, 2022) can offer valuable information on the concept and the educational technology tools applicable in higher education, with ideas on building learning communities, virtual exchange and best practice examples of activities with virtual components.

While the adoption of technology offers many opportunities for flexibility and personalized learning, it also brings forth unique challenges that require adaptation. The students' and teachers' role in this process is changing. Teaching is sometimes replaced with self-directed learning, students interact with study materials, take self-assessments, establish learning goals and the teachers' role is shifted from teaching to guidance through the learning process. In this paradigm, educators act as facilitators, providing resources, designing learning paths, and offering support as students navigate their educational path. The emphasis shifts from a traditional teaching approach to a more student-centric model, empowering learners to take ownership of their education. In this context, some key issues might arise and influence the quality of the educational process:

- **Risk of isolation**: One of the most common issues for online learning is the high dropout rates, often linked to the feeling of isolation, in the absence of face-to-face interaction. Students can feel isolated, even alone in the learning process and collaborative learning experiences and peer interactions, may be compromised. Monitoring student engagement, recognizing signs of disengagement and implementing strategies to re-engage students become critical aspects of online teaching.

- **Self-directed learning issues**: The online learning experience can turn into a self-directed learning challenge and students may struggle with managing their time effectively, setting goals, and staying motivated without the physical presence of a structured classroom environment. Keeping a balance between asynchronous and synchronous learning is another challenge and the design of the lessons can accommodate both self-paced learning and real-time interactions, considering the diverse needs of their students.

- **Digital divide**: Most of today's students are digital natives, and are expected to navigate various online tools, platforms, and resources. However, disparities in digital literacy levels may emerge, even digital literacy gaps posing challenges for those who are less familiar with technology.

- **Assessment integrity**: Online assessments bring forth concerns related to academic integrity, and students may face temptations to engage in dishonest practices, such as plagiarism or cheating during exams. Assessment integrity concerns imply the implementing of effective measures to uphold academic honesty.

The above-mentioned issues must be considered when designing online courses and online learning experiences. That is why they must be addressed before starting the online course design. Strategies to overcome these challenges involve incorporating the pillars of digitally-enhanced learning, ensuring a comprehensive and effective online educational environment, as presented below:

- **Building a learning community**: Creating an inclusive learning community across cultures and networks will foster a sense of community among online learners that will contribute both to avoid isolation and social interaction and to increase motivation and involvement in the course.

  For this purpose, it is important to use the educational platform's features and to design activities for integrating collaborative tools to create virtual spaces for academic collaboration and for exploring and appreciating different cultural perspectives. CIVIS promotes and supports diverse approaches, and invites academics to offer different multilingual learning contexts for the students, independent of the field or delivery mode.

  Designing collaborative projects with transversal cross-cultural exploration and understanding will help students learn from each other's perspectives. Establishing communication channels to allow students to share aspects of their cultural heritage, traditions, or experiences, encourage the use of multiple languages in discussions, providing language options for announcements, forums, and messaging to create an inclusive and linguistically diverse community. When a face to face virtual meeting is initiated it has to accommodate different time zones and to consider cultural nuances.

- **Provide engaging teaching and learning strategies**: it will create an interactive online learning environment which will contribute to the overall effectiveness of the instructional design. In CIVIS, we encourage innovative pedagogies to be included in the teaching design, either from previous CIVIS activities on innovative pedagogies, or from innovative initiatives of CIVIS universities. The Handbook on "Innovative Pedagogies: ways into the Process of Learning Transformation'' (Ciolan et al, 2021) provides an in-depth analysis of the approaches by which teachers are prepared to address pedagogical innovations in the classroom and offers a collection of innovative learning practices in CIVIS universities.

  The learning environment must be designed with interest for creating interactive learning content, which will embed multimedia elements, interactive exercises, self-evaluation, simulation. Whenever possible, gamification elements can be introduced by incorporating quizzes, badges, and other rewards to incentivize progress and achievement. Real-world applications within the course content will illustrate practical relevance and promote active participation, overcoming challenges related to digital literacy. More concrete information will be provided in the following sections.

- **Provide scaffolding learning by breaking down complex concepts** into more comprehensible structures, providing clear instructions, and progressively increasing the challenge level aids in maintaining learner engagement while ensuring comprehension. This approach will diminish self-directed learning challenges, maintaining learner engagement, ensuring comprehension, and guiding students.

- **Communication (synchronous and asynchronous) and continuous feedback** allows for real-time interaction and ongoing discussions and open ways of having direct contact with students' progress addressing the aspect of assessment integrity concerns. Discuss with students about academic honesty and use evaluation methods which not only assess their understanding of the material but also encourage integrity and authenticity in their work.

  Continuous feedback through assessment mechanisms ensures that students stay on track, fostering a sense of accountability and addressing concerns related to monitoring student engagement. Ensure permanent feedback throughout the course using Moodle's assessment and grading tools or by communication channels, incorporate reflective journals or portfolios within Moodle to encourage metacognition and self-assessment.

- **Time management** strategies must be emphasized and **self-paced learning** opportunities offered to the students, into a coherent manner. By offering flexibility in accessing course materials and allowing learners to progress at their own pace, educators empower students to manage their time effectively, reducing the obstacles posed by asynchronous learning.

In the online course design phase (next section), reflect on these pillars and together with the answers revealed in the analysis phase, design the learning experience. The CIVIS Moodle, as other e-learning platforms will offer specific features that will help you to integrate these needs, and this guideline will accompany you in the process.

Creating online courses: an instructional design approach

This section focuses on the course design process, going through the instructional design framework, to ensure a harmonious blend of content, activities, assessments, and a balanced merge between technology and pedagogy to create engaging and effective learning experiences for students. In the section called "The CIVIS Moodle: instructions for a digitally enhanced course", practical insights and examples will be given in order to illustrate the implementation of instructional design strategies within the CIVIS platform, offering educators valuable guidance for creating and optimizing their online courses with a learner-centered approach.

Brief introduction on Instructional Design models

Instructional design is a systematic and multidisciplinary approach to the creation, development, and improvement of learning experiences. At its core, instructional design seeks to enhance the effectiveness and efficiency of educational processes by aligning content, pedagogy, and technology in a purposeful manner. This field draws from principles of cognitive psychology, educational theories, and technology integration.

Several instructional design models have been developed over time, guiding the creation, development, and improvement of learning experiences. One of the most well-known models is the ADDIE, involving Analysis, Design, Development, Implementation, and Evaluation phases. It is a comprehensive instructional design framework that guides the systematic development of educational and training programs, involving a cyclical process where the design and delivery of instruction are continually refined based on evaluation and feedback. The model emphasizes a learner-centric approach, ensuring that instructional materials align with identified learning needs and goals. Through a systematic and reflective process, ADDIE provides a flexible structure for designing, developing, and assessing instructional programs, promoting continuous improvement in the teaching and learning experience (Allen & Sites, 2012).

SAM (Successive Approximation Model) follows an agile approach, featuring iterative design and development phases. This model prioritizes flexibility and iterative development, beginning with the creation of a prototype, allowing for early stakeholder feedback and revisions. The model then progresses through iterative cycles of development and refinement, ensuring that the final instructional product is responsive to evolving needs and effectively meets learning objectives.

Bloom's Taxonomy provides a hierarchical structure for categorizing educational objectives into cognitive domains. Gagne's Nine Events of Instruction offer a sequence to engage learners, from gaining attention to enhancing retention and transfer (Gagne et al., 1992).

These models of instructional design have an important role in aligning educational objectives with effective strategies for content delivery, without being rigid templates but rather adaptable frameworks, allowing educators to tailor them to specific learning contexts.

In the following section, the course design process will be conducted through the main phases of the instructional design: **Analysis, Design, Development, Implementation, and Evaluation**. It is important to mention that:

a) While each phase will be presented in the order above, the evaluation is not only a standalone fifth phase in the instructional design process; rather, it is a continuous and integral aspect

woven throughout each phase, ensuring ongoing refinement and improvement of the instructional materials and strategies (Allen, 2006).

b) The instructional design process is characterized by a fluid continuum, where the boundaries between each phase are not rigid, allowing for iterative and interconnected progress.

Applying Instructional Design principles in online course design

The systematic incorporation of instructional design principles within the domain of online course design imply a comprehensive analysis of each instructional design phase to clarify the application of these principles, together with examples to provide insight into their pragmatic implications for the development of impactful and effective online learning experiences. The content creation has to be aligned with intended learning outcomes, to employ effective delivery methods, to incorporate means of assessing student comprehension, and from this perspective instructional design stands as a fundamental enhancement strategy.

In the next sections, each phase (Analysis, Design, Development, Implementation, and Evaluation) introduces the principles that are applied from conceptualization to implementation of online courses, highlighting not only the theoretical underpinnings but also the practical strategies employed at each phase of online course development.

Phase 1: Analysis of the context and target audience

In this phase, the focus is on gathering information and understanding the context, learners, and learning goals, by answering simple questions in order to understand the learner's needs, goals, and characteristics, as well as the broader context of the course. The examination of the target audience (students), their prior knowledge, and any potential challenges they may face in the learning process, as well an assessment of the overall learning environment and available resources is conducted to inform subsequent design decisions.

This phase is tremendously important as it aims to establish a solid foundation for crafting instructional strategies that cater to the diverse needs of the learners and align with the comprehensive objectives of the course. Comprehensive understanding of the instructional context and learner needs during the analysis phase. These questions guide the exploration of the educational landscape and aid in shaping the subsequent design and development phases.

Who are the students?

In the context of CIVIS Alliance, understanding the diverse student population requires exploring demographic details, preferred learning styles, cultural sensitivities, communication nuances, motivational factors, potential challenges, and strategies for fostering intercultural collaboration.

The information about students' demographics must include not only the age, background or other related information but also to consider the diverse cultural backgrounds of learners from different countries. Intercultural aspects are factors that could influence the learning process, and cultural sensitivity can be promoted by refraining from assumptions rooted in stereotypes and by incorporating content that reflects diverse cultural perspectives and experiences.

Specific learning preferences or challenges and barriers among the students must be explored, as well the motivations and communication styles, as these will reveal essential information used in the design of supportive features in the course.

Students' characteristics will influence their engagement with online content, and their preferences for online lectures, interactions and participation in the online lecture setting. This not only implies the ways they navigate through digital material but also the elements that resonate most effectively in the virtual learning environment. In the design phase this aspect will be addressed.

What are the course objectives and competences?

The answer to this question can clarify the core concepts, knowledge and competences, and it is important to determine the overarching goal of the course and how it aligns with broader educational objectives. A needs analysis to identify the specific gaps in knowledge or skills that the course aims to address will ensure that the learning goals are directly related to the students' needs.

In the analysis, there also must be investigated ways of introducing clear and measurable competences, correlated with the content of each module or section, outlining what learners should be able to accomplish or demonstrate upon completion of each segment. It is also important to ensure alignment with assessments, which should effectively evaluate whether learners have achieved the stated competences and to identify the types of assessments that best measure the attainment of competences.

Other aspects that must be considered since the analysis phase are to identify ways of ensuring relation between competences and real real-world applications or scenarios as this enhances the usefulness and application of acquired knowledge or skills. It is important also to determine the students' workload, as the number of hours needed for successfully accomplishing the course, quantified by the ECTS credit points.

How will student interaction and participation be facilitated in the online lecture setting?

Examine the mechanisms and strategies employed to foster meaningful student interaction and active participation within the online lecture environment. Consider the implementation of collaborative tools such as discussion forums, and interactive tools that encourage engagement. Additionally, explore the incorporation of structured activities, such as group discussions or virtual breakout sessions, aimed at promoting peer interaction. By analyzing the methodologies employed to facilitate student involvement, a comprehensive understanding can be gained regarding the dynamic and interactive aspects integral to the online lecture setting.

What technology tools should be used?

Explore the technologies that are available and suitable for content delivery and for student interaction. This process can be time consuming, that is why start exploring the tools that you are familiar with. Focus on exploring examples of resources created with the tools before actually exploring the tool's functionalities; having real examples of what the tool can produce it could be easier to find if it responds to your requests. After this step you can start learning how to use it, there are many tutorials to help in this process. Sometimes, adaptation to the developed content and vice versa might be necessary: either the structure (decided in the next phase) must be revised either the tool must be changed or multiple tools must be used. It is important to be flexible and creative, it is possible not to find the ideal tool but with creativity you can solve specific issues related to content development.

The eLearning toolkit presented in the annex is a comprehensive resource that provides a curated selection of tools and technologies intended to support you in this process. This toolkit offers practical suggestions for various stages of eLearning course development, encompassing content creation, multimedia integration, assessment tools, collaboration platforms, and more. In the section dedicated to the CIVIS Moodle, this platform is presented as a powerful tool for creating online courses.

Phase 2: Design of learning experiences

While the analysis phase focuses on understanding, the design phase involves making decisions based on that understanding, in order to structure the course effectively. The transition from analysis to design is often fluid, and these phases may overlap as the instructional designer (teacher, course creator) formulates strategies based on the analysis phase findings. The design phase focuses on planning the structure and organization of the learning materials.

Most of the findings emerging from the analysis conducted in the first phase will be used in order to create a coherent course structure incorporating elements that will foster meaningful student interaction and active participation within the online lecture environment.

The most significant action of this phase is to create a comprehensive course outline that serves as a roadmap for the entire process and provides a structured foundation for developing a successful course. The key components to be decided in this phase are:

- **Accessibility and Universal Learning Design (UDL)** have to be considered in the design phase, for the importance of inclusivity and equity in online learning environments. Examine strategies and practices that ensure accessibility, accommodate diverse learning needs and promote equitable opportunities for all learners. The students' needs must be taken into consideration, enhancing the access to educational resources as it ensures inclusivity for students with diverse disabilities, fostering an equitable learning environment for all learners. All materials created adhere to accessibility standards, making them usable for all learners regardless of their abilities. Compatibility with assistive technologies (like screen readers and speech-to-text software) is ensured by the course platform environment and allows students with disabilities to interact with course materials, promoting equal participation in learning activities.

- **Reviewed and refined course competences**, ensuring their relevance and specificity, for each module or section.

- **The structure of the course content**, breaking down the material into modules or units. Establish the topic of each module and, for each module, specific sub - topics to be addressed.

- **Appropriate teaching methods** that align with the competences and the characteristics of the target audience (students). In an online environment, various ICT enhanced - teaching methods can be combined to develop a comprehensive instructional approach. For example, you might use a combination of lectures, group discussions, hands-on activities, and technology-based resources to engage students and promote learning outcomes. Online lectures offer a traditional yet effective way of delivering content, allowing learners to absorb information through verbal communication and visual aids. Discussions and group activities foster collaborative learning, provide an opportunity for interactive and hands-on learning promoting teamwork and problem-solving. Multimedia presentations, including videos, graphics, and interactive elements, appeal to diverse learning styles and enhance engagement by appealing to visual and auditory senses.

- **Assessment design**, aligned with the learning competences and the teaching methods already selected. Consider both formative and summative assessments that can be conducted online. In designing the assessment, a set of factors and aspects become important in order for instructional designers (course creator, teachers) to provide valid, effective and fair evaluation.

  In designing the assessment, some factors can influence their effectiveness: using different formats (written assignments, multimedia projects, discussions, or online presentations), for

different learning styles, offer clear instructions for all assessments, especially in the online learning environment, students need clear and concise instructions for each assessment, detailing expectations, evaluation criteria, and submission guidelines, ensure appropriate feedback. Moreover, design guidelines on plagiarism, proper citation, and ethical research practices to instill a culture of academic integrity. Additionally, consider diversified assessment formats, such as project-based assessments, open-book exams, and collaborative assignments, to create an environment where students are motivated to demonstrate their knowledge while upholding the principles of honesty and ethical conduct.

- **Design learning activities**, aligned with the instructional strategies chosen for the course, emphasizing the development of engaging and purposeful exercises that actively involve learners in the educational experience. The goal is to design learning activities that will keep students' motivation and interest on the course and also to foster a deeper understanding of the subject matter and contribute to the attainment of learning objectives.

- **Identify resources and materials**, choosing those which are relevant for the content, including textbooks, articles, multimedia, and any technology tools that will support the learning process.

- **Define collaborative tools** which will encourage collaboration among learners, such as discussion forums, group projects, or other collaborative platforms. Use discussion forums to ask questions, to help students in sharing ideas and enhancing communication between students (with moderation or not). The threaded structure facilitates organized conversations, making it easier for learners to follow specific topics of interest. The asynchronous nature of forums accommodates diverse schedules, allowing students to engage at their convenience.

  By fostering discussions within forums allows students to better understand the course materials, exchanging diverse perspectives and collaborative insights. The interactive nature of these forums encourages peer-to-peer learning, as students collectively explore topics and problem-solving strategies. The discussion forums serve as repositories of knowledge, accumulating a wealth of information and varied viewpoints. This resource can be beneficial for future reference, aiding in student revision, and supporting ongoing learning beyond the course duration.

  Surveys and polls help gather holistic feedback from students about the course structure, content relevance, and teaching methodologies. Online platforms offer tools to create and analyze survey data, enabling teachers to make informed adjustments based on student responses.

  Learning analytics are provided by online course platforms and allow tracking students' progress. Insights derived from data analytics enable educators to identify learning patterns, address challenges, and personalize learning experiences based on individual student needs.

- **Design the content structure** using a storyboard to organize content hierarchically before implementing it into the course platform. This visual representation helps in refining course structure before actual development and also helps in identifying the needs in terms of course elements (text, tests, interactive activities, learning assignments, images, videos etc). In the storyboard, each scene is described in detail.

In the table below a storyboard example for a course about "Online course design" is presented, with the description of the scenes with the required assets of the course. In the description column examples are general and can differ according to the specific features of the used eLearning platform.

Description of the module	Assets description

Module 1: Introduction in course design
 	
Scene 1: Welcome and course overview
 	
   o Introduction video welcoming learners.
   o Overview of the course structure and objectives.
	Text content: text with the titles
	
	Media: Video welcoming learners

Scene 2: Defining course design
 	
   o Text-based content explaining the fundamentals of course design.
   o Infographic illustrating key concepts.
	Text content: text for explaining the concepts
	
	Media: Infographic that illustrates the key concepts discussed in the text-based content. It should use graphics, icons, and concise text to convey information efficiently.
	
	Interactive element: clickable buttons, tooltips, or hover-over animations on the infographic.

Scene 3: Video lecture - Importance of effective course design
 	
   o Video lecture on the importance of course design in facilitating effective learning experiences.
   o Learning assignment
	Media: Video lecture
	
	Instruction for learning assignment
	
	e.g. Reflection questions on the content provided (e.g. Reflect on a past learning experience and propose personalized adjustments. Discuss and compare insights in a peer-reviewed forum.)
	
	Setting up the collaborative tool to be used

Module 2: Key principles of course design
 	
Scene 1: Alignment with Learning Objectives
 	
   o Guided content explaining the importance of aligning course content with specific competences.
   o Examples and best practices.
	Text content: Text for explaining the concepts
	
	Interactive activity: image showing the relation between content and competences
	
	Collapsible text with description of three best practices

Scene 2: Engaging learning activities
 	
   o Overview of various engaging learning activities (quizzes, discussions, projects).
   o Demonstration of a sample interactive activity.
   o Self-assessment quiz
	Text content: Text explaining what interactive learning activities are.
	
	Interactive activity: a resource as a wizard to create sample interactive activity.
	
	Interactive element: button linked to a list of resources, by category (together with links for each example)

Description of the module	Assets description
	Interactive element: List of questions for the quiz, opening in new window

Scene 3: Personalization and adaptability
 	
   o   Text-based content on tailoring courses to learner needs.
   o   Example scenarios showcasing adaptive learning approaches.
   o   Learning assignment
	Text content
	
	Media: Image to illustrate the content
	
	Interactive activity: for each example (text, image) a link is provided to be open in a separate window.
	
	Instruction for learning assignment
	
	e.g. Design a sample learning activity for a chosen course topic. Share it in the discussion forum for peer feedback.
	
	Setting up the collaborative tool to be used

Module 3: Using technology in course design
 	
Scene 1: Introduction to Learning Management Systems (LMS)
 	
   o   Explorative content on the role of LMS in course delivery.
   o   Brief overview of popular LMS features.
   o   Self-assessment quiz
	Text Content
	
	Media: Video and text explaining the theoretical concepts.
	
	Links to external resources
	
	Interactive activity: List of LMS features presented in a form of interactive resource with links to external content (statistics, evolution etc.)
	
	Interactive element: List of questions for the quiz, opening in new window

Scene 2: Video tutorial - creating content on LMS
 	
   o   Video tutorial demonstrating how to create and organize content within an LMS.
   o   Practical tips and recommendations.
   o   Learning assignment
	Media: Video and text explaining the theoretical concepts.
	
	Interactive activity: organize the content in a scene, with drag and drop action.
	
	Instruction for learning assignment
	
	e.g. Create a sample module within an LMS and share it in the collaborative workspace for feedback.
	
	Setting up the collaborative tool to be used

Description of the module	Assets description
Scene 3: Group Activity - LMS Exploration o Instructions for a group activity where learners explore and interact with a simulated LMS environment. o Discussion forum for sharing findings and insights.	**Text Content** **Media:** Image to illustrate the content Instructions for the group activity **Interactive element**: Link to the discussion forum
Module 4: Assessment and Feedback in Course Design Scene 1: Types of Assessments o Explanation of various assessment types (formative, summative). o Best practices for designing effective assessments.	Text Content **Interactive element:** button triggering the content of best practices.
Scene 2: Video lecture - providing constructive feedback o Video lecture on the importance of constructive feedback in enhancing the learning process. o Demonstrations of effective feedback techniques. o Self-assessment quiz	**Media:** video featuring the course creator (teacher) delivering the lecture on the importance of constructive feedback. **Text Content:** Supporting documents or resources (PDFs, articles, or links to resources) **Interactive element**: List of questions for the quiz, opening in new window
Scene 3: Quiz - Assessing Understanding o Interactive quiz assessing learners' comprehension on course design principles.	List of questions for the **quiz** Feedback according to the results, advising the review of specific subjects. Summary of the results for each module.
Final Scene: Course conclusion Scene 1: Recapitulation and congratulations o Recap of key concepts covered in the course. o Congratulations message for completing the course.	**Text and media content:** A visually appealing summary presentation that recaps key concepts, highlights major takeaways, and reinforces the most critical elements covered throughout the course. This presentation can use slides, graphics, or infographics for clarity. **Text content:** Congratulations message **Interactive element:** A tool to generate and allow the download of a course completion certificate

Description of the module	Assets description
Scene 2: Next Steps and Resources ○ Information on further learning opportunities in instructional design. ○ Additional resources, recommended readings, and links to related courses.	**Text content:** Additional reading materials or resources, with links or downloadable resources, with joining relevant communities, or applying the acquired knowledge in practical scenarios. **Feedback form:** A form or survey where learners can provide feedback on the course overall.

Table 1. Example of a storyboard for an online course

The storyboard can be more detailed or supple and can be edited after the evaluation, at the end of the design phase. From the storyboard, all the required assets are identifiable and will be developed in the next phase of the instructional design. In order to create online course content, essential resources such as text-based content, external resources, video lectures, interactive assignments, infographics, discussion forums, completion certificates, and feedback forms are always incorporated to ensure a comprehensive and engaging learning experience.

By analyzing the table above, we can identify the course components that must be developed in the development phase:

- Text-based content: to introduce concepts, to explain, inform or offer instruction
- Media content: video content, images, diagrams, infographic to deepen understanding of the concepts.
- Interactive assignments: different quizzes, tests, self-assessment.
- Interactive elements: ensuring responses in the students' interaction with the content.
- External resources with supplementary materials to be explored (pdf.'s, presentations, other websites etc).
- Feedback form: for students' feedback on the course.
- Summary presentation, to enhance understanding through visual aids.
- Discussion Forum: to facilitate the ongoing discussion and peer interaction and also to foster a sense of community among learners.
- Completion certificate.

It is important to focus not only on the development of the text content but to integrate media content, interactive elements, self-evaluation in a user friendly interface, as they contribute to:

- Increase motivation.
- Enrich learning experience.
- Enhance engagement.
- Visual representation of concepts.
- Increase the level of retention.
- Fostering interactivity.
- Personalize learning experiences.

Having all of these set at the end of the design phase, start reflecting on the results and check the alignment with learning objectives, clarity of the course structure and content, level of engagement and interactivity within the course, the number of learning activities, quizzes, assessments, the length of the

course according to the intended timeframe, other necessary elements. If necessary, this is the moment of making modifications or redesign. Evaluation is a continuous process and revision of the design phase might often lead to iterations for continuous improvement.

Phase 3: Development of the content, resources and materials

The border between the design and development phases in instructional design can sometimes be fluid and there is often an overlap between these two phases. The design phase typically focuses on planning, outlining, and making high-level decisions about the instructional materials, strategies, and assessments. The development phase, on the other hand, involves the actual creation of instructional content, resources, and materials based on the design plan.

Content creation involves structuring textual resources in a learner-friendly manner, by using formatting tools provided by online course platforms and the editors can organize the content into clear and concise segments, use bullet points, headers, and other formatting options to enhance readability and navigation. Adding content, developing/identifying multimedia materials, including videos, presentations, documents, and interactive elements that align with the instructional objectives.

Content creation depends, to a large extent, on the tools used. Each Learning Management System provides functionalities that may vary from one platform to another. In the section dedicated to the CIVIS Moodle platform, we will provide concrete examples about how to use its particular resources to develop material consistent with the structure designed for the course.

Phase 4. Implementation of the course

In this phase the course is ready, all materials are prepared to be delivered into an organized framework. It is advisable to share the course with a group of students in order to identify barriers or potential problems. If not, test the course from a student's perspective to ensure functionality and accessibility.

Establish the plan for delivering the course and ways of communications. First meeting with students has to include introductory aspects to familiarize students with the course structure, expectations, and key features.

Test and confirm that all technical components, such as the online platform, the course content, and communication channels are operational and foster real-time interaction with students, to address queries, and provide additional explanations as needed. In the CIVIS Moodle section we will provide some concrete information on the implementation phase.

Phase 5: Evaluation

Evaluation is a continuous process and is not the last phase of the instructional design model. Formative evaluation can trigger multiple iterations and creation of different versions of the same course, generating the adjustments in the course content, structure, and activities to optimize the learning experience. The feedback can be collected by conducting formative assessments to learners or colleagues and according to it, improvements can be done. Evaluation isn't confined to the immediate course cycle but extends to long-term improvements. Insights gathered from evaluations contribute to refining future courses, ensuring a progressive enhancement of instructional materials and methodologies.

Evaluation, as a standalone process, conducted after the implementation phase has the aim of collecting feedback from the beneficiaries, not only regarding the course structure, but also to content delivery, and overall learning experience, to be able to evaluate the effectiveness of the instructional strategies and adjust based on feedback.

Reflection is also a good way of assessing the success of the implementation phase, and to identify areas for future iterations of the course. As will be explained in the section dedicated to the co-creation of digital enhanced courses, we invite you to reflect together with the teachers who have participated in the co-creation of digital enhanced courses.

Checklist on the course creation

The process of course design is encapsulated in the following table, which can serve as a practical guide to be used during and at the end of the process as well.

Phase	Aspects to be considered
Analysis	Collect information about the students
	Define clear learning objectives aligned with course goals.
	Establish how the interaction with students will be
	Consider intercultural aspects for diverse learner audiences.
	Evaluate/Improve
Design	Review and refine competences of the course
	Design structure of the course content
	Designing learning activities and learning assignments
	Create a storyboard outlining the structure and flow of the course content.
	Define communication pathways
	Consider accessibility and inclusivity requirements.
	Evaluate/Improve
Development	Develop online content, lectures, and multimedia elements.
	Ensure content aligns with instructional strategies and objectives.
	Create interactive elements for engagement.
	Evaluate/Improve
Implementation	Test the course functionality with a small group of students

Phase	Aspects to be considered
	Establish the communication ways
	Provide technical support and resources for students.
	Ensure feedback to students
Evaluation	Collect feedback from learners on course content and delivery.
	Assess the effectiveness of instructional strategies.
	Reflect on the overall success and areas for improvement.

Table 2. Checklist for the course design process

The checklist ensures a comprehensive and systematic approach to course development, addressing key elements across the instructional design phases. After checking each step in the process, you can be sure of the coherence of the course design, and no key elements in the process have been overlooked.

The co-creation of digitally enhanced courses

One of the distinctive features of CIVIS is that any educational activity is coordinated by at least 3-member universities. This means that the design of CIVIS courses and programmes is the result of the collaborative work of at least three teachers with different academic, cultural, social and often linguistic backgrounds. The challenge is even greater if we consider that our educational offer is open to a potential audience of 17 countries, distributed between Europe and Africa. This implies rethinking the way in which CIVIS courses and programs are developed, in order to move towards interdisciplinary and culturally inclusive approaches.

We think it is important to do at least two things to facilitate this task. On the one hand, encourage dialogue between different academic fields. This is the reason why CIVIS is organized around 5 interdisciplinary Hubs, which work as collaboration spaces where academics from across the Alliance meet to develop collaborative educational opportunities, everything from standalone courses to full programs[1]. On the other hand, develop work methods and teaching approaches that take advantage of the potential of this cooperation. The CIVIS workshops on Innovative Pedagogies bring together experts and teachers from all universities to respond to the main teaching and learning challenges of the alliance. Within the framework of this program, several workshops have been organized around the co-creation of educational activities, which have given us some clues for the development of CIVIS courses and programs[2].

In this section you will find some guidelines on the co-creation of educational activities based on the experience of the first four years of the alliance.

- **Set up an initial meeting**. Very often, the teachers who are going to participate in the course do not know each other. It is important to create an atmosphere of trust in which everyone feels comfortable and there is no ambiguity about the functions to be assumed by each of them. This team will have to decide on both pedagogical issues (the content of the modules, teaching approaches, assessment methods) and administrative issues (e.g., related to the student selection process or mobility, in the case of hybrid formats). It is therefore important that, before starting to work on the course itself, a meeting is dedicated to getting to know each other and defining each other's roles.

- **Use the Checklist on the course creation described above**. Review together the elements of each phase (Analysis, Design, Development, Implementation and Evaluation) and decide to what extent you will incorporate them into your course. It is important to involve everyone in the process. Each person will bring not only a different academic vision, but also a different know-how, which includes, for example, ways of interacting with students, teaching methods and the use of different digital tools for educational purposes.

---

[1] More information on the CIVIS Hubs here: https://civis.eu/en/teach-and-research/our-hubs

[2] Some examples are: "Interculturality in the international classroom" (November 2023), "Teaching beyond our comfort zone: Facilitation for dealing with complex challenges especially in international and intercultural contexts (November 2023)", "Students as "teacher whisperers" - Co-designing your pedagogical scenario with students" (November 2023), "Dialogic teaching for interactive courses in HE" (January 2024), "Connecting students (and faculty) and fostering sense of belonging" (to be delivered in April 2024). More information on the CIVIS workshops on Innovative Pedagogies here:
https://civis.eu/en/teach-and-research/opportunities/workshops-on-innovative-pedagogies

- **Nominate a facilitator**, to help the group of teachers to be more effective by designing and leading meetings and workshops. The facilitator will focus on how the group works together, rather than on the specific content of the meetings. The main roles of a facilitator include:

    o Creating a welcoming and productive environment.
    o Encouraging communication and collaboration.
    o Promoting creativity and problem-solving.
    o Ensuring that everyone's voices are heard.
    o Staying on track and achieving the goals of the meeting or workshop.

- **Agree on the storyboard**. This will ensure consistency between the parts that each is responsible for.

- **Decide who will develop each online content**, lecture and multimedia element in order to put them in the platform. In case you decide to use a tool that favors interactivity among students (a Moodle chat, Discord, Slack...), think that it is important that someone is in charge of facilitating the creation of a community; otherwise, it will probably not be used. It can be one of the teachers, an assistant or even a student of the course.

- **Technical and pedagogical support**: In case you decide to use the CIVIS Moodle, contact the Moodle team at least one month before the start of the activity: moodle@lists.civis.eu. They will create the course on the platform, enroll the participants and support you in some pedagogical aspects.

- **Organize one (or some) mid-term meeting**: With the course already started it is recommended to organize one (or some) short meeting in order to ensure that development is being coherent. In the case where each teacher is in charge of a module, it may be sufficient for the two of them to see each other to ensure the transition between modules (for example, to give students a task to do between the end of one and the beginning of the other).

- **Evaluate the impact of the course**: Organize a final meeting to discuss what worked best and what could be improved. Use the checklist as a reference to see how well the objectives proposed by the teaching team have been achieved. In addition to this internal evaluation, contact the students to get their feedback on the course. You can do this in different ways, for example: organizing a farewell session, with questionnaires or asking them for a video message with their assessment. This information will help you to improve aspects for future editions of the course.

The CIVIS Moodle: instructions for a digitally enhanced course

The basis of a digitally enhanced course lies in the first two phases of the model presented above, the Analysis and the Design, which are to be elaborated prior to the use of the online course platform. The storyboard that will emerge as a result must function as the backbone of the course. This will ensure the relevance of the digital tools used and will allow us to be more effective in their use. The development phase is the moment in which tools, resources and applications are chosen to respond to the specific activities that have been defined in the design phase. Moodle supports teachers bringing the instructional design vision to life by using the platform's diverse tools for content creation, multimedia integration, and interactive assessments.

The use of the CIVIS Moodle is not mandatory. The guidelines given in this document are applicable to any Learning Management System, since what matters most is the design of the course itself. However, Moodle has specific functions that may be useful for those project coordinators who decide to use the CIVIS platform. You will find some indications below that will contribute to leverage the digital component of the courses.

Set up the course structure

If you decide to use the CIVIS Moodle, contact the support team at least one month before the start of the course. They will create a space on the platform for your course and give you instructions on how to access it. After logging in you will see a similar screen to this:
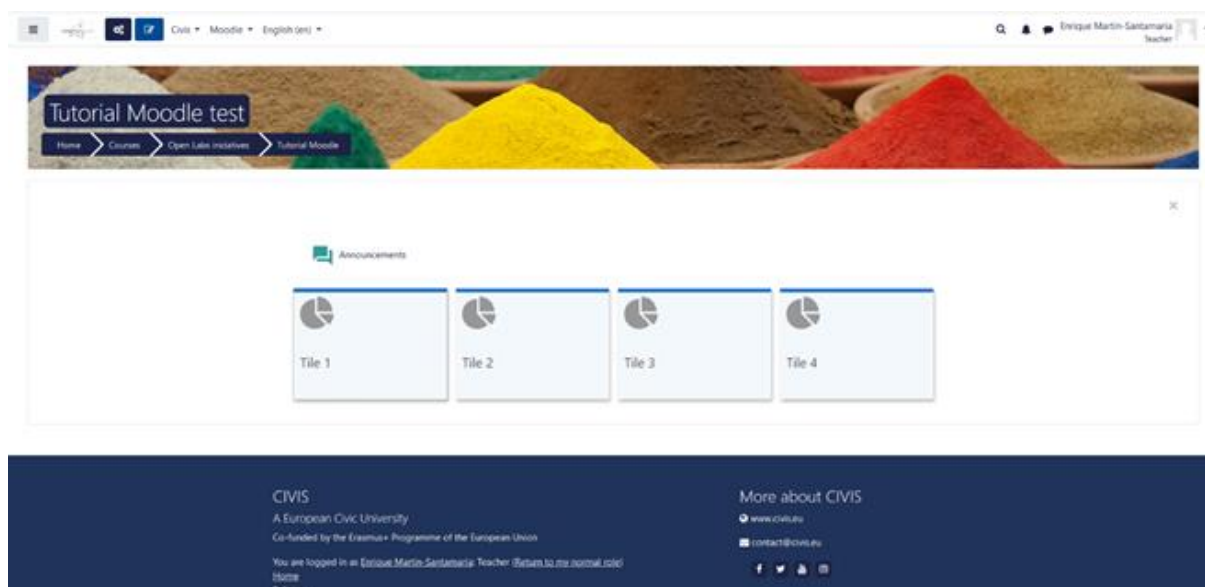

Image 1. Appearance of an empty CIVIS Moodle course

At the top of the screen, there are two editing icons. The first one ![icon] is used to modify the general settings of the course. The second one ![icon] is used to edit the sections (tiles) and the specific activities of each section. To close the editing mode, click on ![icon]

You can add or remove as many sections (tiles) as you wish. Establish clear learning pathways and sequences for learners to navigate through the content. Divide the content in sequences according to the decisions in the design phase (see the table above). Each course will have different needs, but we suggest that you include at least the following sections:

- **Course overview**: description of the course, prerequisites, learning outcomes, important dates, course calendar, online meeting links, etc[3].

- **Presentation of teachers**: it can be a short-written biography, or a video presentation, together with contact information.

- **One tile per topic/module of the storyboard**. Presenting the content in a sequential manner guides student through a predetermined learning path with a clear beginning and end.

- **Assessment information**: type of evaluation, dates, grading system etc. Consider adding a rubric with clear assessment criteria.

To modify the sections:

- Activate the edit mode
- Change the name and select an image for each section to make the course more user friendly
- You can change the order of the section by moving the ✛ icon up and down.

Image 2. Example of the course "Civic Engagement in Europe: a Transdisciplinary Approach"

Within each section, the course can be organized using labels and pages. To do so, click on *Add an activity or resource*[4]:

- *Label*: For general information about each section. It allows you to add images, videos, links, etc. Organize text-based content in a structured manner, following a logical sequence.

- *Page*: It can be used to create subsections with specific information about the course, including images, videos, links, etc. When there is a lot of information, it will help to provide a clearer presentation.

Other elements that may be useful for the organization of your course are:

- *Summary*: It is also possible to add a short summary of the course that appears on the top of the tiles. It may help the students to have basic course information at a glance. To do so, activate the edit mode and click on Edit summary in the upper left corner.

- *Calendar*: In Moodle terms, the calendar is not a resource, but a block, which are items which may be added to the side. You will find the blocks at the top right, as long as you have the edit

---

[3] If digital tools external to Moodle are used, specify what they are and how they will be used.

[4] In general terms, an activity is something that a student will do that interacts with other students and/or the teacher. A resource is an item that a teacher can use to support learning.

function active. To add an event, click on "new event" and select the date. It will be visible in your students' calendar.

Create content for the course

Content creation means populating the Moodle space with different types of information: adding text, multimedia, interactive elements, external content integration, assessment and feedback as well as other types of content such as collaborative content creation, discussions and collaboration.

In the course content, as planned in the design phase, the main components are:

- **Learning content**: concepts, analysis of concepts, theories, classifications etc, presented using text, video or multimedia resources.

- **Learning activities**: interactive activities to foster understanding on theoretical concepts and to break down the monotony of going through the content.

- **Learning assignment**: at the end of each module, a structured task or exercise should be designed both to facilitate learning and to assess the level of understanding of concepts presented in the module.

Below you will find some guidelines on the different types of content to be included in your course:

a) **Text-based content**

Different *resources* and *activities* can be used to introduce textual content: pages, books, forum, assignments, wikis. The Moodle's text editor is similar to other text editors, offering options for simple formatting (font, size, type, color, etc.) to complex (use of headings, alignment, etc). These are some tips for entering text in the CIVIS Moodle:

- **Set a clear format**: Use Moodle's formatting options, such as headings, subheadings, and bullet points, to enhance readability. Ensure consistent heading hierarchy to provide a visual structure, for text organization and for improving navigation for learners. Use heading styles (H1, H2, H3, etc.) consistently for sections and subsections. The bullets list highlights key points and facilitate comprehension, breaking down information into small sections, supporting the content processing. Use bold, italics, or underline selectively to emphasize important information. Emphasis styles draw attention to specific words or phrases, signaling their significance to learners.

- **Use easily readable fonts on various devices**: standard fonts like Sans Serif or Calibri and appropriate font sizes contribute to a clear and professional appearance.

- **Ensure a balanced distribution of text and empty space**: this will help to provide a clean and organized appearance. White space enhances readability and focuses learners' attention on the content. Control line length to avoid long stretches of text. Optimal line lengths (around 50-75 characters per line) improve readability by preventing eye strain. Adjusting line lengths creates a comfortable reading experience for learners. Maintain consistent text alignment throughout the content: whether left-aligned, justified, or centered, a uniform alignment contributes to a polished and professional appearance, enhancing the overall visual appeal.

- **Make sure you take accessibility features into account:** add Content with proper heading structures. Descriptive link texts aid screen reader users in navigating content more efficiently, enhancing comprehension and ease of access for students with cognitive disabilities.

Image 3. Example of a section from the course "Global Migration on the Ground"

b) Multimedia-based content

It is used to enhance text-based content. Moodle provides tools for integration of images, videos, or audio clips within the text to cater to different learning preferences. Images, pre-recorded video, online video hosted on external platforms (see point "External tools to be embedded in the CIVIS Moodle platform" below) can be embedded directly into Moodle resources such as pages, books, or forum posts. It is important to use the correct citation of the source.

In the CIVIS Moodle there is a *resource* called *Media Server*[5], which has several pedagogical possibilities: editing, integrating slides into the videos, adding comments, attachments, surveys, quizzes, etc. In order to use this option, click on add an activity or resource. You can also integrate it within a Label or a Page by clicking on
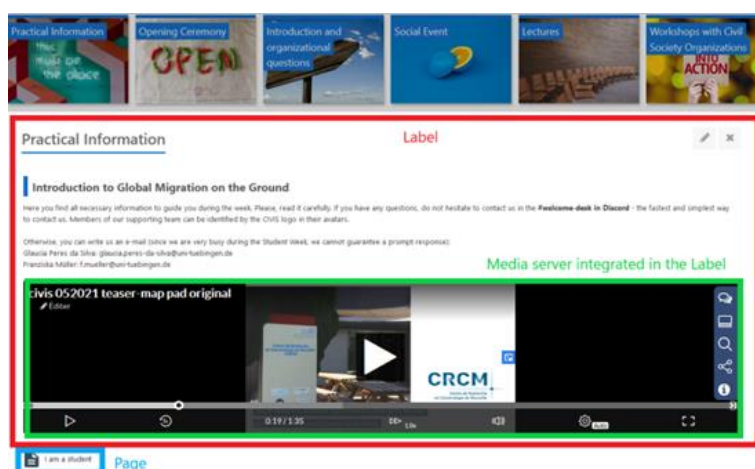

Table 4. Example of multimedia use from the course "Global Migration on the Ground"

---

[5] For more information on the use of this tool: https://www.ubicast.eu/en/

Make sur you take accessibility features into account. Alt text for images which enables visually impaired students to access visual content through screen readers, ensuring they receive the same information as their peers. Captioning videos aids students with hearing impairments and benefits learners in noisy environments or those who prefer muted content

c) Interactive activities

Games, interactive presentations, interactive images, guides, interactive graphics/infographics, simulations, etc. can be created with integrated Moodle features or with external tools (see dedicated point below). With respect to the Moodle resources, these are the most common ones:

- *H5P*: It supports a variety of content types, including multiple-choice questions, drag-and-drop exercises, flashcards, timelines, and more. This versatility allows educators to tailor their teaching materials to suit different learning styles and objectives. It does not require programming skills, but does require more familiarity than other Moodle tools[6].

- *Lesson*: It allows teachers to create 'branching' exercises where students are presented with content and then, depending on their responses, are directed to specific pages. The content may be text or multimedia.

d) Quizzes and Assessments

They serve as components for assessing and reinforcing learning in Moodle.

- *Quiz*: it enables the creation of diverse assessments, including multiple-choice questions, true/false statements, and short answer questions. The test must be created first and, in a second step, the questions will be defined. With configurable settings such as time limits and randomized questions, quizzes offer a versatile tool for evaluating understanding and knowledge retention.

- *Assignment*: it allows learners to submit a variety of file types, text, or multimedia assignments. Detailed feedback and grades can be established for a personalized and constructive assessment process. Rubrics for grading criteria can be included, to create detailed assessment criteria.

e) Collaboration and communication tools

They encourage peer interaction, group work and discussions. They can be created and integrated in different course sections.

- *Chat forums*: It allows students to have a real-time synchronous discussion on predetermined topics.

- *Wikis*: It is a collaborative tool for students and educators to create, edit, and share content in an interactive way.

f) External tools to be embedded in the CIVIS Moodle platform

The CIVIS Moodle should be understood as a gateway to the course. The student should easily find all the information needed to follow it. This does not mean that all the digital tools used in the course must

---

[6] For more information on the tool: https://docs.moodle.org/403/en/H5P

be specific to Moodle. Sometimes, the teacher will find an external tool that better responds to the learning objectives[7]. Here are some indications to integrate them in a coherent way:

- **Do not multiply the use of external tools**, as this can be confusing for students.

- **Use tools that you are comfortable with**. A more technically basic but easy-to-use tool is preferable to a comprehensive but confusing one.

- **Be clear on the use of each tool**: When will they be used? Do students need to open an account? What is the link? These instructions must be clear and visible. Do not hesitate to put the link (e.g. for online meetings) in several places.

- The first time you use a tool with students, **take a few minutes to introduce it and explain how it works**. Make sure everyone knows how to use it

- For tools with the goal of increasing student interactivity, **make sure that someone is in charge of facilitating participation** on an ongoing basis. It is possible to give that role to one or more students, it can increase their commitment and facilitate the participation of others.

- **Privilege open source platforms and tools that respect the protection of personal data**

For a more visually appealing use, Moodle allows you to integrate external tools into your own courses. To do this, you need to copy the tool code and integrate it into a Moodle text space (e.g., a label or a page). It is a simple procedure; these are the basic steps:

1. Go to the tool you want to use (in the example, YouTube, but it can be done with communication tools, collaborative tools, etc.).
2. Search for the "embed" function. You will usually find it in the "share" section and is accompanied by this icon ⟨⟩
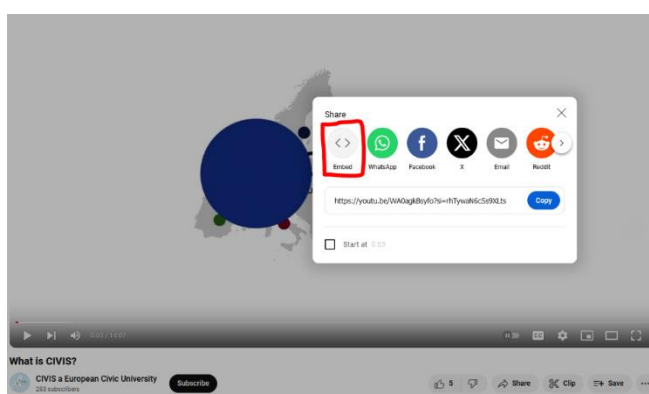

Image 5. Example to the copy code from YouTube

3. Copy the code
4. Go to your Moodle course and open a text editor in the section where you want to embed the tool.
5. Click on "Show more buttons" and look for the icon ⟨⟩

---

[7] In the annex, you will find a table with a list of external tools with different pedagogical purposes.

🔹 Adding a new Label to Module 1: Introduction in course design❓
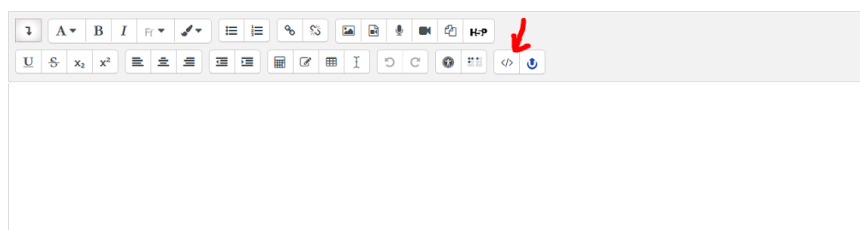
▾ General

Label text

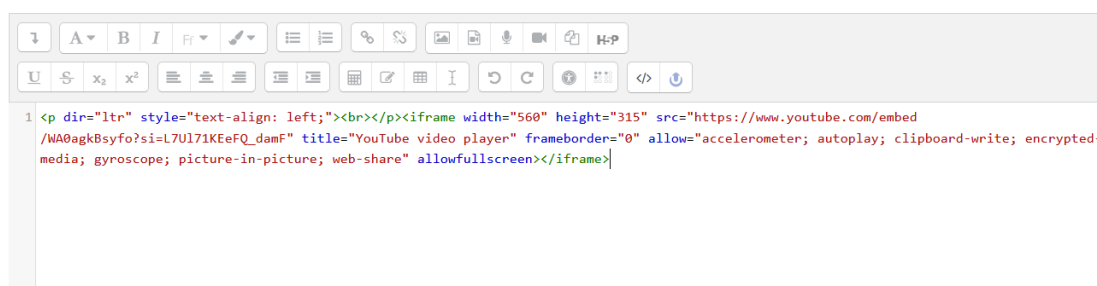Image 6. Example from a CIVIS Moodle textbox

6. Paste the code

Image 7. Example from a CIVIS Moodle textbox with the code displayed

7. Click on "Save and return to the course". The tool resource will appear as part of the Moodle section and not as an external link

Connection between the CIVIS Moodle and the platforms of each CIVIS university

The CIVIS Moodle facilitates the participation of students from all the universities in the alliance, since they can access the course with his or her own institution's account. However, some project coordinator may prefer to use his or her own university's online course platform, either because he or she feels more comfortable with it or because the course already existed previously on that platform.

CIVIS is working to find a technical solution (called Learning Tools Interoperability) that connects the CIVIS Moodle with the Learning Management Systems of the member universities. The objective is that the teacher can work on his or her university platform but the students access via the CIVIS Moodle in order not to need to authenticate on a local platform.

This solution has already been successfully implemented with some universities, although it is not yet a widespread solution at the alliance level. If you are interested in testing this option, please contact the Moodle team (moodle@lists.civis.eu) for guidance on this possibility.

CIVIS support to strengthen the digital component

CIVIS functions as a collaborative platform for experimentation. From a pedagogical point of view, the aim is to take advantage of the expertise from all member universities to develop an innovative offer that responds to a changing educational context: the more and more digital, flexible and connected to the needs of civil society. To this end, CIVIS has created working teams that support, in different ways, the academics in the development of courses and programs. The following list is limited to pedagogical support:

- **Innovative Pedagogies Officer**: is responsible for coordinating a collective teaching support for the development of CIVIS joint academic activities. He coordinates the Expert Group on Innovative Pedagogies in order to identify pedagogical needs, provide advice, propose solutions and promote teaching innovative initiatives across CIVIS. He is also in charge of the educational aspect of the CIVIS Moodle.

- **Expert Group on Innovative Pedagogies**: composed of heads and members of the Teaching and Learning Centers of all CIVIS universities, the group of experts provide advice and guidance to CIVIS strategic projects. One of their functions is to encourage the thoughtful development of digital environments in order for technology to significantly enhance the student learning experience. To this end, the group has a dual function: on the one hand, their members share the experience of their universities in the field of digital education; on the other hand, they can identify experts in their universities and facilitate the link with CIVIS to work on projects with specific pedagogical needs.

  It is difficult to know how teaching will be transformed in the coming years, but it is easy to guess that the impact that digitalization will have on it will be enormous. Two elements will be fundamental in this process: research, to ensure a scientific basis in the face of the emergence of myths related to learning, and solid support systems for academics, including both support in the design of educational initiatives and upskilling programs that will enable them to respond in an agile manner to a changing reality.

  In this sense, the teaching and learning centers of universities must play a fundamental role, since they combine scientific rigor and experimental vocation. European Universities have the privileged position of being able to create networks between these centers, which allows them to multiply knowledge in educational innovation and the potential to support academics. CIVIS is working to consolidate this network with the aim of favoring co-creation between professors and experts for the development of courses and programs. The truly innovative nature of CIVIS' educational offerings depends to a large extent on this.

- **The Moodle team:** is in charge of supporting academics in the use of the CIVIS online course platform, both in administrative (e.g. course creation on the platform, creation of participants' accounts) and pedagogical matters (e.g. finding pedagogical solutions that respond to the learning objectives of the course). They are also a point of contact for possible technical problems.

References

Allen, W. C. (2006). Overview and evolution of the ADDIE training system. Advances in Developing Human Resources, 8 (4), 430-441.

Allen, M. W., & Sites, R. (2012). Leaving ADDIE for SAM: An agile model for developing the best learning experiences. Alexandria, VA: American Society for Training and Development.

Ciolan, L., Iucu, R., Nedelcu, A., Mironov, C., & Carțiș, A. (2021). Innovative Pedagogies: ways into the Process of Learning Transformation. CIVIS. https://civis.eu/storage/files/innovative-pedagogies-ways-into-the-process-of-learning-transformation.pdf

Gagne, R. M., Briggs, L. J., & Wager, W. W. (1992). The principles of instructional design. 4 ed. Fort Worth, TX: Harcourt Brace Jovanovich Publishers.

Iucu, R., Ciolan, L., Nedelcu, A., Zus, R., Dumitrache, A., Carțiș, A., Vennarini, L., Fernández de Pinedo, N., Pericică, A. (2022). Digitally enhanced mobility. CIVIS Handbook on Virtual Mobility. CIVIS European University. Zenodo, https://doi.org/ 10.5281/zenodo.6090251.

Martín, E. & Touzot, D. (2022). CIVIS Digital Campus. CIVIS, 18-26. https://civis.eu/storage/files/r13-civis-digital-campus.pdf

ANNEX
E-learning toolkit

The selection of a digital tool is always at the service of a pedagogical objective, but sometimes it is difficult to find one that suits the needs of the course. Here is a list of some free tools that may helpful for the design of your activities[8].

Pedagogical objective	Tool name	Description
Assessment	ClassTime	It helps teachers and learners to assess understanding and progress in real time in class through the use of quizzes, questions and reflection questions Free
	Plickers	A quick and simple way to check student understanding. This assessment tool allows teachers to collect on-the-spot formative assessment data without the need to have students use devices or paper and pencil Free
	ClassQuiz	A simple open-source game-based learning tool that allows teachers to create different types of quizzes and puzzles to assess student learning Free
	Kahoot	A game-based learning tool that allows the creation of evaluation quizzes Free
	Mentimeter	It helps teachers to create interactive presentations with quizzes, questions and answers, world clouds etc. It is very useful when teaching to a large number of students for taking feedback and anonymous overall assessment. Free up to 50 participants per month
	Particify	An open-source tool which helps teachers to create interactive presentations with quizzes, questions and answers, world clouds etc. It is very

---

[8] The content and use of online tools may change from day to day and the terms and conditions may be updated. This file was updated in January 2024, please bear this in mind when browsing the tools on this list.

		useful when teaching to a large number of students for taking feedback and anonymous overall assessment. Free
	Educaplay	A gamification tool that helps teachers create different types of interactive questionnaires and surveys to assess learner understanding in a fun way. Free
Pedagogical content editor	Genially	Content creating tool that allows teachers to create pedagogical material with innovative designs and graphics, by yourself or with a team Free
	Canva	Content creating tool that allows teachers to create pedagogical material with innovative designs and graphics, by yourself or with a team Free
	Academic Presenter	This tool allows you to create graphic-based presentations and gives you the ability to animate them. You can create interactive and more visually appealing presentations and course materials. Free
	Framapad	Collaborative tool that enables to edit texts with other colleagues in real time Free
Learning through memory	Memrise	Online learning tool with courses created by its community, mainly focused on teaching languages, but also for academic and non-academic subjects Free
	Anki	Free software for learning and reviewing flashcards through spaced repetition Free
Online whiteboard and e-portfolio	Milanote	Virtual whiteboard that enables you to organize your projects alongside your colleagues in real time Free version: up to 100 cards

CIVIS
Europe's Civic University Alliance

[Miro](#)	Online collaborative platform that enables distributed teams to work together, from brainstorming with digital sticky notes to planning and managing agile workflows Free version for educational purposes
[Tableaunoir](#)	Virtual whiteboard that enables you to organize your projects, giving you the possibility to invite contributors to work together and exchange ideas in real time Free
[Whiteboard](#)	Virtual whiteboard that enables you to organize your ideas, run a brainstorming session with your students and let them work in a group. Free
[XMind](#)	A useful tool for creating visual mind maps and brainstorming. It makes it easy to organize thoughts and ideas visually. You can use this while giving homework to the students Free
[Padlet](#)	Digital bulletin board for collaborative sharing of ideas, images and documents. It's a versatile and visually appealing tool, accessible from any device, ideal for both individual and group projects. Free
[Wakelet](#)	A collection curation and sharing platform where users organise articles, videos and images from the web. It allows students to visually curate and share content. Useful for collaborative projects, creating posters, sharing project results and/or sharing homework. Free version: free for individual use except video uploading and storage future, up to 3 collaborative collections
[Google Sites](#)	This tool enables you to build a website page online, in a simple way. You can create, through its diverse functions, a modern and dynamic portfolio and share it with other people Free

CIVIS
Europe's Civic University Alliance

Virtual interactive platforms	Mozilla hubs	Virtual space platform that enables you to create a community with your students and share multiple files and course content Free version: 10 participants at the same time and 500 mb storage
	Workadventure	Video chat platform based on the creation of virtual spaces where students can move around interact with other participants Free version: up to 15 participants
Interactive videos editor	Flip	Video tool that allows teachers to post "topics", videos with some accompanying text. This is then shared with students, who can be prompted to respond. The response can be made using the software's camera to create videos that are then posted to the original Topic Free
	Ubicast	A platform to create, integrate and teach with educational videos (video trimming, chaptering, automatic indexing, keyword management, broadcasting, automatic translation) Free unlimited version through the CIVIS Moodle

Author: Meryem Aydin