

ERASMUS + KA2



**INTELLECTUAL OUTPUT 3:
LEARNING PLATFORM**

**IO3/A1- Functional and non-functional
specifications for PARADOX project**

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1. INTRODUCTION

1.1. *THE PROJECT*

Managing water is one of society's greatest challenges. What was once an abundant natural resource now requires careful management to ensure its availability and quality for future generations. In a recent survey of over 830 EU professional engineers and employers, climate change mitigation was identified as having the biggest shortfall in skills in the water industry. The 2018 Water and Environment Skill Shortage research, produced by engineering recruitment firm Matchtech and the Chartered Institution for Water and Environmental Management (CIWEM), found that engineers see flood risk engineering experiencing the highest skills shortage in 5-10 years. Uncovering the impact of this skills shortage, the survey found that 81% of employers have seen increased employee turnover and 70% said that it has resulted in a reduced ability to finish projects. It is clear from these results that engineers and employers in the water industry are fearful for the future of their sector. Extreme weather and rising sea levels, related to climate change, are likely to increase the risk of flooding and it is vital that training address the current skills gap within the EU. to use the state support & continue their university studies) will deepen the need for the university professors & assistant to provide an interactive, dynamic learning environment.

Paradox proposes the creation of a flexible learning pathway in line with the needs of learners and companies in water management sectors. It will provide a modular program supported by Industry 4.0 platform accredited aided by Blockchain applications that will CAPITALIZE COMPANIES WITH PREPARED YOUTH, providing enterprises innovation, expertise and added value. Paradox see the CREATION OF A COURSE developed by 5 universities, 3 SMES and one Chamber of Commerce association all of them currently supporting educational programmes dealing with the sector in different ways. The main target group of the project is be the university learning environment that is getting more and more diverse, intercultural and demanding to embrace technology in delivery of training. The constant trend for increase of the number of foreign students (either coming as Erasmus students, or to make a bachelor/master degree, or as refugees/migrant who want to use the state support & continue their university studies) will deepen the need for the university professors & assistant to provide an interactive, dynamic learning environment.



Paradox aims to develop an innovative methodological framework & approach for water management training aided by Industry 4.0 learning platform. Paradox is a EU-level applicable solution through joint cooperation. Paradox see the CREATION OF A COURSE developed by 5 universities, 3 SMES and one Chamber of Commerce association all of them currently supporting educational programmes dealing with the sector in different ways. From this main objective, several specific objectives are defined:

- SO1. Capacity Building in the sector
- SO2. Create FLEXIBLE LEARNING PATHWAYS
- SO3. Promoting cooperation and MOBILITY ACTIVITIES

The duration of the project is 30 months (September, 2020 – August, 2023) and is comprised of:

- Project Management and Implementation
- Transnational Project Meetings (7)
- Multiplier Events
- Activities for the development of the defined “Intellectual Outputs”

1.2. AIM OF THE INTELLECTUAL OUTPUT

The Intellectual Output 3 consisted in the creation of a learning Platform (Activity Type: Learning, teaching, training, youth work materials and methods, pedagogical approaches and tools).

The e-learning platform will be created by EVM. The prototype of the e-learning platform is already developed by EVM, it comes from a free online training platform based on a free software such as ECLIPSE. This is an open-source (under GNU/GPL licensing) e-learning and content management system, aimed at improving access to education and knowledge globally. It is backed up by the ECLIPSE Association, which has goals including the promotion of the software, the maintenance of a clear communication channel and the building of a network of service providers and software contributors. The ECLIPSE project aims to improve the availability and quality of education at a reduced cost, through the distribution of its software free of charge, the improvement of its interface for 3rd world countries devices portability [*] and the provision of a free access public e-learning campus. Moodle, Dokeos, Caroline, Sakai, etc. will be considered as a mitigation plan.

The objectives that will be accomplished with the IO3 are:

- To obtain an e-learning platform
- To define platform specifications.
- Architectural adjustment of the platform.
- Customisation of the contents.



- Testing and improving the platform.
- To Use blockchain for certificates used for successful students.
- To release the pilot platform.

The most important work will be executed while preparing functional and non-functional specifications (O3-A1). EVM will start preparing the guidelines (O3-A4) once specifications are elaborated and they will be completed at the early stages of the content integration (O3- A2) and the test release and training improvement. If needed, O3-A4 will be extended.

O3-A1 Elaboration of functional and non-functional specifications. Leader: EVM, 9 Months. Based on the design and development of the training path and learning contents, O2, EVM with BNU help, will start with the adaptation of the identified needs to its platform.

1.3. AIM OF THE ANALYSIS

EVM, as leader of IO3, made an exhaustive analysis of several platforms during the proposal preparation and chose ECLIPSE platform, an open-source e-learning and content management system, aimed at improving access to education and knowledge globally.

Once the project started, EVM decided to do a consultation among the partners in order to decide which platform will fit better the project: ECLIPSE, Moodle, Chamilo, Totara learn, Canvas or Open EdX. This analysis is a part of the IO3- A1: preparing functional and non-functional specifications.

After the analysis the partners decide that **Moodle** will fit better the needs of the platform.

The process of the analysis was:

- 1) Identify the objectives of the platform: integrate the results and findings from the modules
- 2) Identify several platforms
- 3) Identify the characteristics of each platform
- 4) Do the preliminary questions
- 5) Answer the questions
- 6) Final decision

2. ACTIVITIES DESCRIPTION



The main activities that were foreseen for this specific output are :

O3-A1 Elaboration of functional and non-functional specifications. Leader: UTIU, 8 Months.

Based on the design and development of the training path and learning contents, O2, EVM with BNU help, will start with the adaptation of the identified needs to its platform.

This task will comprise the architectural adaptation for the customisation of the OSS platform of choice (ECLIPSE). Any identified third party components (connectors, services, interfaces to social media etc.) that will be plugged into ECLIPSE to facilitate the final requirements will be given back to the community under a Creative Commons license, so that others can use and extend freely, contributing thus also to the sustainability of the tools. A testing release will be available for the partners in order to perform the internal testing. Then, following a testing cycle, improvements and corrections will be initiated for the preparation and delivery of the modules online by each partner responsible. This release will comprise all of the content, in all of the project languages.

EVM will be responsible for the proper execution of this activity. Although the more technical weight of this activity lies with EVM, BNU and the other partners will help EVM re-design the conceptual architecture and the functionalism for the online training platform.

Later, when the platform has been tested, each partner, will translate the informative part of the online platform, which previously has been designed in English, into all consortium languages. BNU will review the English version.

O3-A2 Training Content Integration. Leader: UPM, 28 Months.

The final content objects will be uploaded to the platform and integrated into learning paths that will facilitate the training workflow by grouping the learning units comprising each training module under a learning path. Each learning path will provide functionality for keeping scores and tracking progress and it will be possible for course administrators to define pass/ fail conditions depending on the overall score achieved per assessment or otherwise. The platform will also be compatible and fully working on Smartphones and tablet systems. This step will comprise the necessary changes for the customisation of the e-learning platform. This task will be led by UPM with the help of EVM and UNIPA.

O3-A3 Test release and platform improvement Leader: UTB, 7 Months.

A testing release will be available for the partners in order to perform the internal testing. Then, following a testing cycle, improvements and corrections will be initiated for the preparation and delivery of the modules online by each partner responsible. This release will comprise all of the content in all of the project languages. Later, when the platform has been tested, each partner, will translate the on-line informative part of the platform, which have previously been designed in



English, into all consortium languages. UTB will be responsible for the proper execution of this activity. Although the more technical weight of this activity lies with EVM, BNU will help re-design the conceptual architecture and the functionalism for the online training platform.

O3-A4 Guidelines on how to use e-Learning Platform. Leader: UPM, 7 Months.

The offline and online multilingual guidelines will be developed with methodology on how to use the e-Learning platform, as not all trainees will have the required knowledge of Blockchain certification skills. The offline guidelines will be developed by EVM in English although, every partner, will translate the guidelines into all of the consortium languages. BNU will review the English version.

3. SELECTING A PLATFORM

- 3.1. INITIAL REQUIREMENTS

The main requirement for the platform:

- Content integration
- Training sessions
- Intuitive platform
- Open source
- Accessible to European business and HE stakeholder

Partners decide to analyse several platform apart from ECLIPSE in order to have a clear idea of what they wanted to accomplish.

That is the reason why EVM prepared a serie of questions in order to make sure all interested parties have thought about

- Size of the platform and the materials to upload
- Scope of the platform
- Purpose
- Ambition
- Budget

- 3.2 PRELIMINAR QUESTIONS

As a starting point, the partners had to think about the following questions during the follow up meeting of PARADOX held during July 2021.



What do we want to accomplish with our Learning Platform?

- Just hold Courses / Modules / MOOCs?
- Disseminate? Exploitation?
- Teach to small groups?
- Teach to large groups?
- Hold events for your staff or consortial members?
- Hold community-wide events?
- Start small with plans to expand into something bigger?
- We cannot choose a platform before having a clear idea of what we want to accomplish.
- Hold courses, meetings, have focus groups, talk to everyone you can talk to...

4. PLATFORM ANALYSIS

The main objective of this process is to analyse the characteristics of each of the pre-selected platforms, apart from ECLIPSE, in order to understand which one fits best the project aims.

Details of each platform and a comparative chart of other platforms can be found below:

Top Open-Source Learning Management Systems

Moodle: Moodle is widely known among open-source LMS solutions. It features detailed guides on how to set up your own Learning Management System, tips on how to create online training courses and teach with Moodle, as well as a large community of Moodle users who interact on various topics. Most importantly, it's entirely free of any charge and comes with a mobile application as well.

Chamilo: An open-source LMS, that is here to improve access to online training. Backed up by the Chamilo Association, aiming to promote the software, maintain a clear communication channel, and build a network of service providers and software contributors. Chamilo offers easy-to-use authoring tools for creating online training that meets all learning preferences.

Totara Learn: Totara Learn meets all the requirements related to your employees' roles, training needs and objectives through effective delivery of individual learning plans. It provides for rich functionality, which can be implemented quickly and with a significant cost reduction, comparing to proprietary solutions. This award-winning open-source learning platform is designed for helping you to develop, train, manage and engage your staff.

Canvas: An open-source LMS that is free for instructors. It makes teaching and learning easier in terms of implementation, adoption, customer support, and success. It is adaptable, reliable, and customizable. Designed to get out of your way, and let you do your thing. Its interface and features are crafted to save you time and effort, resulting in getting adopted faster and deeper than many other Learning Management Systems.



Open edX: The Open edX is a tool empowering learners to access online course content, including videos and textbooks, plus checking their progress in the online training course. The Open edX LMS also has a discussion forum and a wiki at your disposal, that both learners and course team members can contribute to. There is also a dashboard through which the online instructor can enroll online learners, produce reports, and administer an online training course as it runs.

5. FINAL DECISION AND CONCLUSION

After a joint analysis of the project requirements and the available platforms, the consortium decided to use **MOODLE** for the completion of the project.

The specifications of the platform matched all of the project needs and has other interesting features that facilitated the work of partners and students:

- Open Educational Resource
- Modern interface
- Intuitive
- Known by the partners and future users
- Personalised dashboard, feature to track the progress
- Collaborative platform
- Multilingual capability
- Manage user roles and permissions
- Create learning paths
- Group management
- Peer and self assessment



Output 3.A2

TRAINING CONTENT INTEGRATION

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Innovative Training Approach in the Technology Assisted Environment for Water

SUMMERIZE INFO

PROJECT TITLE:

Innovative Training Approach in the Technology Assisted Environment for Water Management-
PARADOX

WP REFERENCE:

IO3

TASK REFERENCE:

IO.A2

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1 MODULE 1

1.1 Descriptors of the module

| | |
|---|---|
| Module title | <i>Chapter 1. GOVERNANCE AND MANAGEMENT OF WATER RESOURCES</i> |
| Subject title | <i>" The water resources management through the perspective of legislation and governance "</i> |
| Module unit code | 1 |
| Reference organization | Buckinghamshire New University |
| Number of ECTS credits allocated | 6 |
| Mode of delivery | <i>Web-based training</i> |

1.2 Learning outcomes of the module

On successful completion of the module, the students are expected to acquire a number of generic and specific competences:

a. Generic competences:

- *Adequate language skills:* good reading comprehension skills with the topic of sustainable water resources management.
- *Adaptability:* flexible attitude towards changing social and environmental conditions (sectoral, design, production, innovation, history etc.) and comprehending the need to learn new skills and innovative concepts in a changing environment to achieve sustainable water management;
- *Logical reasoning abilities:* problem identification, teamwork, creative search for solutions (both well-known ones and new ones), ability to follow logical inferences and elaborate formal reasoning in issues related with resource efficiency and sustainable green growth.

b. Specific competences

- Demonstrate critical analysis concerning the background and wider contexts, including the broader economic, social and environmental dimensions of governance and regulation of water.
- Apply the key concepts, principles and law regulating the use, sharing, and management of water resources.
- Critically apply the principles and law in this field to new cases and situations.
- Evidence independent research skills in primary and secondary resources, and be

able to communicate key learning both orally and in writing.;

1.3 Syllabus

- Short description of the subject:

The module explores the interface of water resources management and sustainable development through the perspective of regulations and legislation. The module first presents the EU regulations for water management and their uses and relevance to sustainable development. Secondly, the module examines governance aspects linked to water use and allocation at the local, national and international levels through issues of multilayer integration, and transboundary agreements. Particular focus is on the actors and institutions involved in water governance at these spatial scales. Thirdly, the module will assess the monitoring and design of networks within an information cycle context.

- Goal:

The aim of this module is to provide you with a critical understanding of the principles and regulation governing the use and management of water resources. The module will draw upon case studies and experiences in specific regions to bring to live this contemporary challenge.

Objectives: (specific objectives in connection with competences)

- Issues underlying water resources use
- The regulatory framework governing water resources
- Key principles underlying water resource regulation
- Monitoring principles of quality of water

Units:

- Unit 1: EU policy on water resource management
- Unit 2: Governance of water resources
- Unit 3: Management of water resources

- Practical activity: Each student selects an example for water resources governance and monitoring and completes an assignment to apply complex legal reasoning to issues relating to potential legal aspects.
- Assessment:
 - Short test after each unit (5 questions each unit, multiple choice) and related with the theoretical and practical content of the unit.
 - A final test of 20 (multiple choice) questions related to the theoretical and practical content of the whole subject.

2 MODULE 2

2.1 Descriptors of the module

| | |
|---|--|
| Module title | <i>Chapter 2. SOCIAL, ECONOMIC AND ENVIRONMENTAL ASPECTS</i> |
| Subject title | <i>"Water resources exploitation in an island context : Hydroelectric generation in islands: El Hierro case study"</i> |
| Module unit code | 2 |
| Reference organization | |
| Number of ECTS credits allocated | |
| Mode of delivery | <i>Web-based training</i> |

2.2 Learning outcomes of the module

On successful completion of the module, the students are expected to acquire a number of generic and specific competences:

a) Generic competences: (REPEAT IN ALL MODULES WITH MINOR CHANGES)

- *Adequate language skills:* good reading comprehension skills with the topic of water resources exploitation.
- *Adaptability:* flexible attitude towards changing circumstances (sectoral, design, production, innovation, history etc.) and acknowledgement of the constant need to learn new skills and new concepts in a changing environment;
- *Logical reasoning abilities:* problem identification, creative search for solutions (both well-known ones and new ones), ability to follow logical inferences and elaborate formal reasoning in issues related with resource efficiency and sustainable green growth.

b) Specific competences: (SPECIFIC TO EACH SUBJECT)

- Understanding of islands needs and challenges;
- Water obtention and sources on islands;
- Main water uses on islands;
- Canary Islands idiosyncrasy and El Hierro example;

2.3 Syllabus

- Short description of the subject:

Island states/communities depend, as other mainland countries, upon the quality and quantity of their water for their existence and economic activities. However, water management on islands is unique as it is constrained by their size, isolation from the mainland, fragility, and limited human, natural and financial resources. Although different in many features (size, isolation, geology and topography, climate and hydrology, economic development, etc.) - all influence water resources and management, islands share common water-related problems and challenges. Management of water on islands is extremely crucial because of its finite features.

- Goal:

The main goal of this module is to show the students the importance of the responsible use of natural resources in islands, especially water, a very scarce good on such isolated territories.

- Units:

- Unit 1: The water in an island: context
- Unit 2: Water obtention in islands
- Unit 3: Water usage in islands
- Unit 4: The water cycle in Macaronesian Islands

- Assessment:

- Short test after each unit (6 questions each unit, multiple choice) and related with the theoretical and practical content of the unit.
- A final test of 20 (multiple choice) questions related to the theoretical and practical content of the whole subject (20 questions for each 3ECTs).

3 MODULE 3

3.1 Descriptors of the module

| | |
|---|--|
| Module title | <i>Module 3. SUSTAINABILITY REPORTING: WATER MANAGEMENT</i> |
| Subject title | <i>"Drivers, benefits and standards for non-financial reporting"</i> |
| Module unit code | 3 |
| Reference organization | University of Palermo |
| Number of ECTS credits allocated | 3 |
| Mode of delivery | <i>Web-based training</i> |

3.2 Learning outcomes of the module

On successful completion of the module, the students are expected to acquire a number of generic and specific competences:

b. Generic competences:

- *Adequate language skills:* good reading comprehension skills with the topic of sustainable water resources management.
- *Adaptability:* flexible attitude towards changing social and environmental conditions (sectoral, design, production, innovation, history etc.) and comprehending the need to learn new skills and innovative concepts in a changing environment to achieve sustainable water management;
- *Logical reasoning abilities:* problem identification, team work, creative search for solutions (both well-known ones and new ones), ability to follow logical inferences and elaborate formal reasoning in issues related with resource efficiency and sustainable green growth.

c. Specific competences

- sustainable development goals;
- ESG rating systems;
- Italian PNRR;
- CSR drivers;
- Global Reporting Initiative Standards
- How to write a sustainability report

3.3 Syllabus

- Short description of the subject:

It was 1987 when the still valid definition of sustainable development was introduced for the first time in the so-called Brundtland report: "Sustainable development is that development which allows the present generation to satisfy their needs without compromising the possibility of future generations to satisfy theirs". In particular, there are 17 goals to be achieved by 2030 (called Sustainable Development Goals) and they are made up of 169 targets whose common thread is the concept of sustainability described above. Sustainability reporting is a process implemented by companies to highlight their economic, social and environmental performance to stakeholders.

The main goal of this module is to show the students that sustainability reporting is not only a way for a company to communicate to the stakeholders its sustainable water management objectives and performance, but it also drives its achievement

- Objectives: (specific objectives in connection with competences)
 - Understand the importance of sustainable development goals
 - Comprehend the role of ESG rating and sustainability reporting in the process of circular economy
 - Know the main standards for sustainability reporting (GRI) and for water management sustainability
 - Be able to write a sustainability report
- Units:
 - Unit 1: Sustainable Development and policy
 - Unit 2: The circular economy and sustainable business models
 - Unit 3.1: GRI standards and sustainability reporting
 - Unit 3.2: Water management
 - Unit 4: How to write a sustainability report
- Practical activity: Each student selects an example for sustainability report and completes an assignment by identifying the standard used and how water management sustainable goal is referred to.
- Assessment:
 - Short test after each unit (5 questions each unit, multiple choice) and related with the theoretical and practical content of the unit.
 - A final test of 20 (multiple choice) questions related to the theoretical and practical content of the whole subject.

4 MODULE 4

5 MODULE 5

5.1 Descriptors of the module

| | |
|---|---|
| Module title | <i>Chapter 5. ECOHYDROLOGICAL AND ECOSYSTEM-BASED APPROACHES AND NATURE-BASED SOLUTIONS</i> |
| Subject title | <i>"Utilizing ecohydrological and ecosystem-based approaches and nature-based solution to sustainably manage water resources sustainably"</i> |
| Module unit code | 5 |
| Reference organization | International Hellenic University – Geomorphology, Edaphology and Riparian Areas Laboratory (GERi Lab) |
| Number of ECTS credits allocated | 6 |
| Mode of delivery | <i>Web-based training</i> |

5.2 Learning outcomes of the module

On successful completion of the module, the students are expected to acquire a number of generic and specific competences:

c. Generic competences:

- *Adequate language skills:* good reading comprehension skills with the topic of sustainable water resources management.
- *Adaptability:* flexible attitude towards changing social and environmental conditions (sectoral, design, production, innovation, history etc.) and comprehending the need to learn new skills and innovative concepts in a changing environment to achieve sustainable water management;
- *Logical reasoning abilities:* problem identification, team work, creative search for solutions (both well-known ones and new ones), ability to follow logical inferences and elaborate formal reasoning in issues related with resource efficiency and sustainable green growth.

d. Specific competences

- Integrated water resource management;
- Ecohydrological approaches;
- Ecosystem-based approaches;
- Nature-based solutions;

5.3 Syllabus

- Short description of the subject:
Water is a limited resources that is utilized by many different sectors that in many cases have conflicting ideas on its proper management. In addition, the world's increasing population along with climate changes impact on the hydrologic cycles will increase the pressure on water resources. It is imperative to find more sustainable and environmentally friendly ways o manage water resources. Another essential element for the sustainable water management is the inclusion of all relevant stakeholders. This is why it is essential for all water and land managers to understand and be able to implement integrated water resource management, ecohydrological approaches, ecosystem-based approaches and nature-based solutions to achieve sustainable and long-term plans.
- Goal:
The main goal of this module is to show the students the importance on sustainable water management that can be achieved with environmentally friendly approaches including all stakeholders. These include: Integrated Water Resource Management, Ecohydrological Approaches, Ecosystem-based Approaches and Nature-based Solutions
- Objectives: (specific objectives in connection with competences)
 - Understand the importance of integrated water resources management
 - Comprehend the uniqueness and advantages of ecohydrological approaches
 - Be able to implement ecosystem approaches to enhance adaptation to climate change
 - How nature-based solutions can lead to more sustainable water management plans
- Units:
 - Unit 1: Integrated Water Resource Management
 - Unit 2: Ecohydrological Approaches
 - Unit 3: Ecosystem-based Approaches
 - Unit 4: Nature-based Solutions
- Practical activity: Each student selects an example for water resources management and completes an assignment on how the approaches taught in this module can be applies to sustainable management.
- Assessment:
 - Short test after each unit (5 questions each unit, multiple choice) and related with the theoretical and practical content of the unit.
 - A final test of 20 (multiple choice) questions related to the theoretical and practical content of the whole subject.

6 MODULE 6

6.1 Descriptors of the module

| | |
|---|------------------------------|
| Module title | <i>ENGINEERING HYDROLOGY</i> |
| Subject title | |
| Module unit code | <i>6</i> |
| Reference organization | <i>UPM</i> |
| Number of ECTS credits allocated | |
| Mode of delivery | <i>Web-based training</i> |

6.2 Learning outcomes of the module

On successful completion of the module, the students are expected to acquire a number of generic and specific competences:

a) Generic competences: (REPEAT IN ALL MODULES WITH MINOR CHANGES)

- *Adequate language skills:* good reading comprehension skills with the topic of water resources exploitation.
- *Adaptability:* flexible attitude towards changing circumstances (sectoral, design, production, innovation, history etc.) and acknowledgement of the constant need to learn new skills and new concepts in a changing environment;
- *Logical reasoning abilities:* problem identification, creative search for solutions (both well-known ones and new ones), ability to follow logical inferences and elaborate formal reasoning in issues related with resource efficiency and sustainable green growth.

b) Specific competences: (SPECIFIC TO EACH SUBJECT)

- Understanding of the hydrological cycle;
- Knowledge on the watersheds and the river;
- Understanding of the Hydrological processes;
- Ability to understand computer applications based on Hydrology;

6.3 Syllabus

- Short description of the subject:

Engineering hydrology is the application of the science of water resources engineering that deals with the study of the behaviour, movement, and distribution of water at atmospheric, surface and groundwater levels. These applications are focused on the determination of floods, the intensity of storms, or the development of groundwater, among others. In this module we will approach to the hydrological engineering in terms of the hydrological cycle, and we will study the main hydrological processes and their applications as water bioengineering.

- Goal:

The main goal of this module is to approach to the hydrological engineering in terms of the hydrological cycle, and we will study the main hydrological processes and their applications as water bioengineering.

- Objectives: (specific objectives in connection with competences)

- This module aims to present an approach of main concepts of hydrological engineering
- It also aims to give an overview of the hydrological cycle, and the hydrological processes
- The module also aims to give a first approach on computer applications on water bioengineering.

- Units:

- Unit 1: Introduction to engineering Hydrology
- Unit 2: Introduction to water bioengineering
- Unit 3: The hydrological cycle
- Unit 4: The watershed and the river
- Unit 5: Hydrological processes

- Practical activity: ... [brief description of the activity (activities) ... Maximum number of activities is one per Unit]. Participants will be invited to read scientific articles related to the main definitions and the most important aspect of the module. Maximum number of activities is one per Unit.

- Assessment:

- Short test after each unit (6 questions each unit, multiple choice) and related with the theoretical and practical content of the unit.
- A final test of 20 (multiple choice) questions related to the theoretical and practical content of the whole subject (20 questions for each 3ECTs).





Intellectual Outputs 3.0

IO3-A3: TEST RELEASE AND PLATFORM IMPROVEMENT

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Innovative Training Approach in the Technology Assisted Environment for Water Management

SUMMERIZE INFO

PROJECT TITLE:

Innovative Training Approach in the Technology Assisted Environment for Water Management-(PARADOX)

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IO3 (Learning Platform)

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1 INTRODUCTION

The Intellectual Output 3 consisted in the creation of a learning Platform. Release testing refers to coding practices and test strategies that give teams confidence that a software release candidate is ready for users. Release testing aims to find and eliminate errors and bugs from a software release so that it can be released to users.

A testing release will be available for the partners in order to perform the internal testing. Then, following a testing cycle, improvements and corrections will be initiated for the preparation and delivery of the modules online by each partner responsible.

Later, when the platform has been tested, each partner, will translate the on-line informative part of the platform, which have previously been designed in English, into all consortium languages. EVM will be responsible for the proper execution of this activity. Although the more technical weight of this activity lies with EVM, BNU will help re-design the conceptual architecture and the functionalism for the online training platform.

2 CONSIDERATIONS ABOUT THE PLATFORM

The consortium decided to use MOODLE for the completion of the project. The specifications of the platform matched all the project needs and have other interesting features that facilitated the work of partners and students:

- Open Educational Resource
- Modern interface
- Intuitive
- Known by the partners and future users
- Personalized dashboard, feature to track the progress
- Collaborative platform
- Multilingual capability
- Manage user roles and permissions
- Create learning paths
- Group management
- Peer and self-assessment

Moodle is widely known among open-source LMS solutions. It features detailed guides on how to set up your own Learning Management System, tips on how to create online training courses and teach with Moodle, as well as a large community of Moodle users who interact on various topics. Most importantly, it is entirely free of any charge and comes with a mobile application as well.

As technology's role in society continues to evolve, a flexible Learning Management System is critical to meeting the needs of today's modern learner. Moodle provides a central learning hub to connect eLearning tools and simplify the teaching and learning process.

With its functionality and plugin capabilities, Moodle offers an engaging and effective eLearning experience for students of all ages. Moodle allows for unique learning methods such as gamification, competency-based education, mobile learning, accessible gradebooks, interactive online classrooms, and much more.

Additionally, due to its inherent flexibility and easy-to-use interface, Moodle can be used to reach a wide range of needs. In fact, many learners that are introduced to Moodle in primary, secondary, and further education find themselves using Moodle again later in life when they enter the workforce, which we will explore in the next section. That said,

Moodle has the added benefit of providing easy adaption for both faculty and learners who may have experienced the platform elsewhere previously.

2.1 Systems compatibility of MOODLE

While Moodle presents certain common features in almost all similar e-learning tools, it also provides certain plug-in options. As an e-learning platform, Moodle features:

- blogs
- chats
- database activities
- glossaries
- support systems enabling the functioning in multiple languages
- content management
- regular examination and assessment

The current infrastructure facilities adopted by Moodle enable it to support a plethora of plug-in options like graphical themes and content filters, enrolment, and authentication processes as well as resource and question patterns.

Any operating system that supports the usage of PHP allows the usage of an e-learning platform like Moodle and some of the systems where Moodle can perform without any alterations include Mac OS X, Windows, Linux, Unix, NetWare etc.

2.2 Advantage and Disadvantages

There are many perceived advantages of open-source software tools, like MOODLE. The ability to customize open-source software to local requirements and then return these customizations to the source if desired is a recognized advantage of open software tools.

There are also several other recognised advantages, which make open software tools an attractive option for end users. These include:

- Lower software costs
- Simplified licence agreements
- Potential for scaling/consolidation

- No vendor 'lock-in'
- High quality software

While the advantages of open-source software can be seen as attractive there are also well recognised disadvantages of open source tools. These include:

- 'Hidden' costs such as training, implementation, etc
- Limited service and support
- Difficulties identifying the latest version of the software
- 'A work in progress'
- Lack of access to training

3 TEST RELEASE

Testing is intended to show that a program does what it is intended to do and to discover defects in the program before use. When software is tested, the program is run using dummy data. The test results are checked for errors, anomalies, or information about non-functional attributes of the program.

MOODLE is a very intuitive tool and the staff involved in the development of PARADOX had no problems developing and creating content on the platform.

Use Reports to Track Student Activity in Moodle

Moodle allows instructors to request reports detailing which resources and activities of a course have been accessed, when, and by whom. Moodle produces several kinds of reports:

- Logs – generates a filtered report showing information about a particular activity or student.
- Activity report – generates a simple unfiltered report that you can sort by column header showing all activity in the course.
- Course participation – provides a sortable list showing all class members, with details about a particular resource or activity. You can see who has viewed a resource or submitted an activity.
- Activity completion – generates a list of all participants and displays whether or not they have completed activities.
- Note: Activity Completion reports are only available if Enable completion tracking is set to Yes in your course. Once the Activity Completion is enabled for the

course, instructors can set completion criteria for activities or resources. For more, see: [View Activity Completion Report](#).

- Forum Summary Report - generates a summary report of Forum participation.

Logs

Course logs allow instructors to see when and which resources or activities have been accessed. You can check to see if an individual student has viewed a specific resource or participated in a particular activity. You can limit your search to a specific day or get results for a specific period of time. Logs are particularly helpful to view an individual student's forum posts over the course of the semester.

To request a Log report from Moodle:

1. On your Moodle course page select Course Management (gear icon). The Course Management panel will open.
2. From the Course Management panel (gear icon), under User Links, select Logs. The Choose which logs you want to see page will open displaying an array of drop-down menus. Choose one or more options to narrow the search:
 - Course filter – The default is the current course.
 - Group filter – The default is All groups. Select the list to choose a specific group.
 - Note: This menu is only available if Groups is set to Visible groups or Separate groups in Course Settings.
 - Participant filter – The default is All participants. Select the list to choose a particular participant.
 - Day filter – The default is All days. Select the list to choose a specific date.
 - Activity filter – The default is All activities. Select the list to narrow the filter to one activity.
 - Action filter – The default is All actions. Select the list to limit the action to Create, View, Update, Delete or All actions.
 - Events filter – Filters include Teaching, Participating and Other. Selecting Teaching filters generates results based on actions a teacher might have taken (e.g., grading a student or creating an activity or resource). Selecting Participating filters generates results based on actions a student or participant might have taken (e.g., posting to a course or making a submission to a Moodle Assignment).

3. To view the logs, select Get these logs. The page will refresh, displaying logs based on your chosen filters.
4. To download the report as a file, select the file type from the Download table data as drop-down menu:
 - Comma separated values (.csv)
 - Microsoft Excel (.xlsx) HTML table
 - Javascript Object Notation (.json)
 - OpenDocument (.ods)
 - Portable Document Format (.pdf)
5. Select Download (at right) to download the report file to your computer.

View Activity Report

The Activity report is a simple report with no filters that shows all activity in the course. To generate the Activity report:

1. In the menu bar at the top of your course page, select Course Management (gear icon). The Course Management panel will open.
2. On the Course Management panel, under User Links, select View Activity Report. The Activity report page will open, listing course activities. Items are listed in order of appearance in the course sections.
 - The Activity column shows the icon for the activity type and the name of the activity.
 - The Views column tells you how many times each item has been viewed.
 - The Last access column tells you the date the item was last viewed and the elapsed time since it was last viewed.
 -

View Course Participation Report

The Course participation report provides an easy way to monitor general participation in your course. It is particularly useful for monitoring activity in forums. You can see if students have viewed readings or forums, and if (and how many times) they have posted in the forum or activity.

To generate a Course participation report:

1. In the menu bar at the top of your course page, select Course Management (gear icon). The Course Management panel will open.

2. On the Course Management panel, under User Links, select View course participation report. The Course participation page will open.

3. Choose your options from the drop-down menus:

- Activity module – Select the Activity type for which you wish to report (e.g., Chat, Forum, Quiz, etc.).
- Note: Only the activity and resource types used in the course will be listed in this drop-down menu.
- Look back – Select the period for which you wish to report (you can only go back the number of days since the first activity occurred).
- Show only – Choose what course role to filter by.
- Show actions – Choose whether to report on Views, Posts, or both (All Actions).

Groups – Choose which groups to filter by.

4. Once you have set values for the above parameters, select Go. Users matching the criteria you selected will be listed in a table sorted by Name. Under All actions, you can see whether (and how many times) they have completed the action.

5. To sort the table, select the column header.

View Activity Completion Report

When enabled the Activity Completion report shows the completion status of an activity or resource.

To enable completion tracking:

1. On your Moodle course page select Course Management (gear icon Settings icon). The Course Management panel will open.

2. On the Course Management panel, under the Course Settings heading, select Edit course settings. The Edit course settings page will open.

3. On the Edit course settings page, under Completion tracking section, locate the dropdown menu next to Enable completion tracking, and select Yes. Select Save and display to return to your course page.

To set completion criteria:

1. In the menu bar at the top of your course page, select Turn editing on (green pencil icon, top right). Editing icons and links will appear.
2. To the right of the Activity or Resource name you wish to set completion criteria, select Edit. The Edit drop-down menu will appear.
3. From the Edit drop-down menu, select Edit settings. The Edit settings page will open.
4. On the Edit settings page locate and open Activity completion section. The Activity completion configuring options will appear. Configure the criteria for completion.
5. When configured, select Save.

To generate Activity completion report:

1. In the menu bar at the top of your course page, select Course Management (gear icon). The Course Management panel will open.
2. On the Course Management panel, under User Links, select Activity completion. The Activity completion page will open listing student names and lists of activities or resources configured for completion. The report can also be downloaded in Spreadsheet format (UTF-8 .csv) or Excel-compatible format (.csv).

View Forum Summary Report

The Forum summary report provides an overview of student participation within a Forum activity.

To generate the Forum summary report:

1. On your course page, select the link to open the forum. The Forum page will open.
2. On the Forum page, select the Actions menu (Settings icon). A drop-down list will open.

3. From this list, select Forum summary report. The Forum summary report page will open listing student activity in the forum.

- Number of discussions posted – shows the number of discussions posted by the students
- Number of replies posted – shows the number of replies posted by the students
- Number of attachments – shows the number of attachments uploaded to the forum
- Number of views – shows the total number of times the student has viewed the posts
- Word count – shows the total number of words used by the student in the forum activity
- Character count – shows the total number of characters used by the student in the forum activity
- Earliest post – shows the date the first post was uploaded
- Most recent post – shows the date of the most recent post
- Export posts – allows you to export posts for each student in any of the following file types:
 - Comma-separated values (.csv).
 - Microsoft Excel (.xlsx).
 - HTML table.
 - Javascript Object Notation (.json).
 - OpenDocument (.ods).
 - Portable Document Format (.pdf).

4 PLATAFORM IMPROVEMENT

While PARADOX has a standard 'look and feel' for its website, this was overlooked in the adoption of Moodle. It is important to have a standard theme or template for all

courses enabling staff to add materials as required languages.

It is important to provide support for students. Although just another LMS, there are noticeable differences from the other LMSs students are more familiar with. The provision of a “get started guide” on the front page of the website would overcome most student problems with Moodle. Students also need advice on minimum system configurations, for example, Adobe, as some had very old versions, which caused incompatibilities.

Ongoing communication between staff on course teams is essential to ensure staff agree on what is loaded and when it is made available, etc. To help address this issue, a staff only general site has been created in Moodle to encourage discussion between staff.

5 CONCLUSIONS

It is apparent that Moodle will successfully support collaborative teaching and learning across the partners. Based on the success of the trial, PARADOX formally adopted Moodle as its LMS.



Output 3.A4

IO3A4: GUIDELINES ON HOW TO USE THE E-LEARNING PLATFORM

PROMOTED BY



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



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Innovative Training Approach in the Technology Assisted Environment for Water

SUMMERIZE INFO

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IO3

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1 ENABLING COURSE EDITING

To edit the content of a course on the LEARN platform, you must first log in to the platform from the link <https://paradox.web.uma.pt/user/preferences.php?userid=24&course=1>. You will find all the modules of the program on the main page. You may then choose the module that you want to edit by clicking on “CLICK TO ENTER THE COURSE”. See for example screen shot for Modules, Figure 1. Note that the courses have been created beforehand by the administrator.

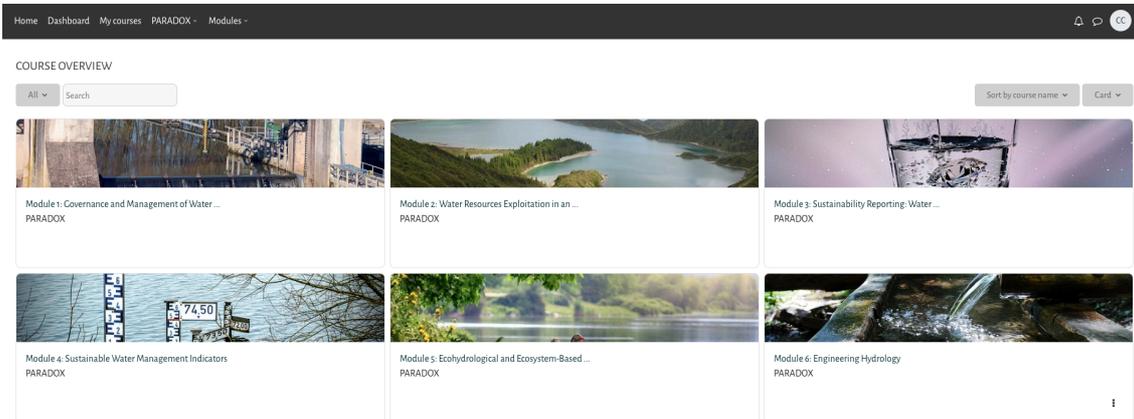


Figure 1

Example: Enter to the Module 6. Once you have entered the module page you will need to “**turn editing on**” from the course administration menu, Figure 2. This is necessary so that you the instructor can activate the editing tools of the course and begin forming it by giving it content, format and structure.

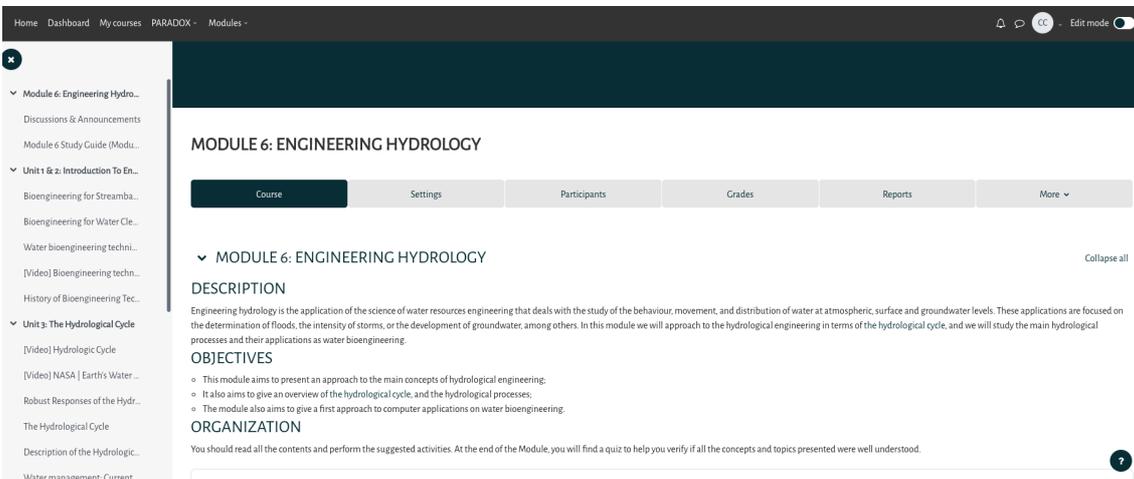


Figure 2

1.1 Editing course settings

Under the same course administration section, you can also find the “edit settings” option, Figure 3. Clicking on this option will allow you modify the section appearance of the module (weekly or topics format for example), set starting dates, set an image, write a description for the module and other settings.

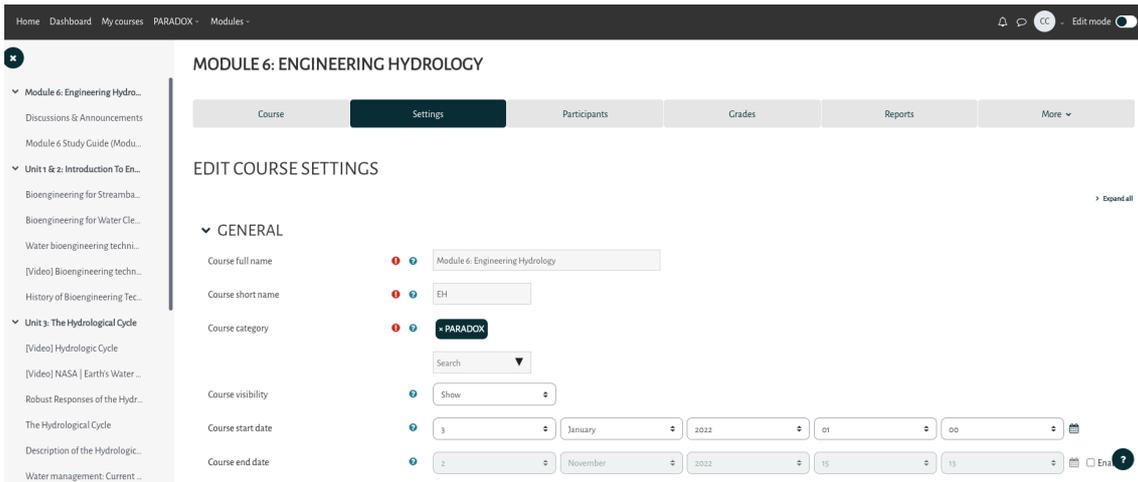


Figure 3

1.2 Changing the topic name

To assign a specific name to a Topic as well as to provide a description, click Edit at the end of the Topic bar and from the drop-down menu select Edit topic, Figure 4, Figure 5. Alternatively, you may click on the pen icon next to the topic name, Figure 4.

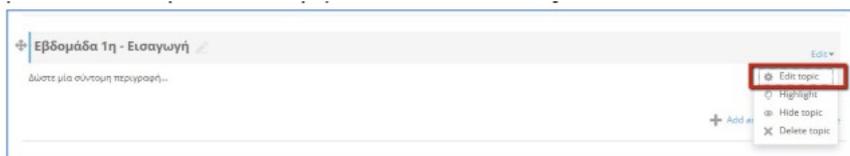


Figure 4

Don't forget to click on **save changes**, Figure 5.

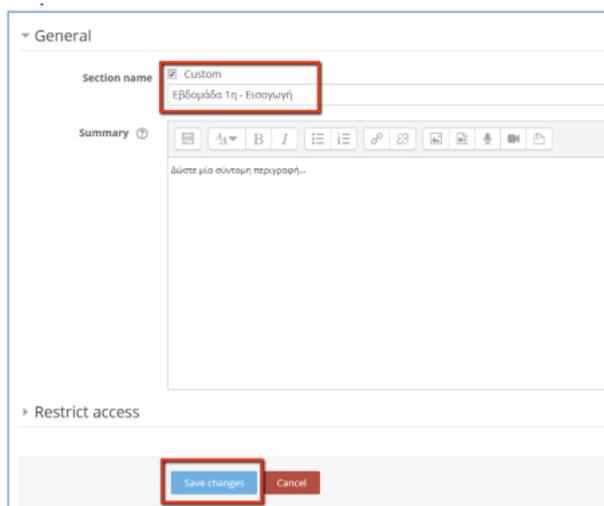


Figure 5

2 ADDING COURSE CONTENT

To add course content in a topic, select the **Add an activity or resource** that appears under the topic name on the right. A new window will appear from which you may select resources from the **ACTIVITIES** and **RESOURCES** sections accordingly, Figure 6. To upload files (e.g. Word, PowerPoint, PDF) you can either select **File** from the **RESOURCES**, or, you may find it more convenient to drag-and-drop the file you want (from the windows explorer or desktop for example) to the area just below the topic name. Furthermore, the **label** choice in the **RESOURCES** allows you to write a description for the specific topic.

2.1 Creating an assignment form

To create an assignment form, select **Assignment** from the **Add an activity or resource** menu. Then, enter the name and description of the assignment in the respective fields that will appear in the new window, Figure 7. Do not forget to check the **display the description on course page** box.

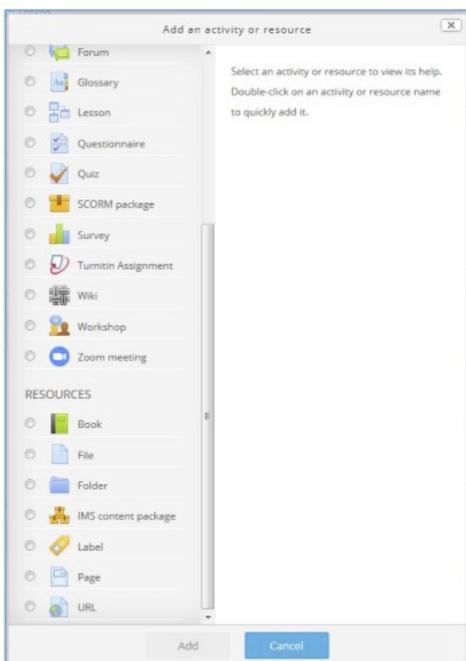


Figure 6

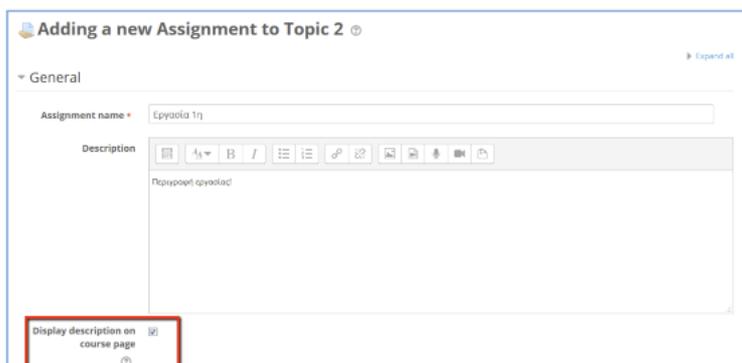
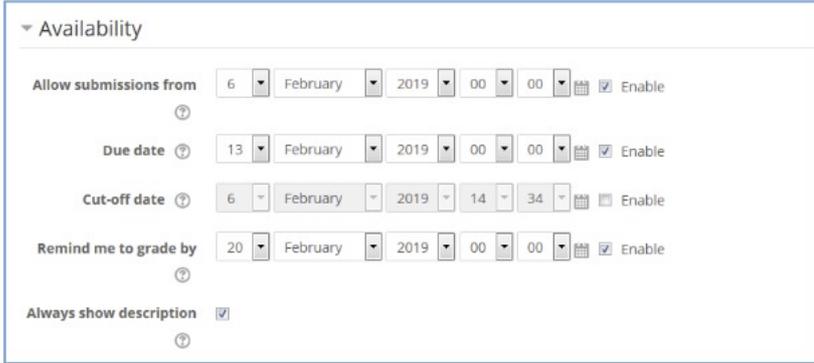


Figure 7

In the Availability field you can set the submission dates for the assignment. If you do not want students to be able to submit the assignment after the deadline, you must enable the **Cut-off date**, by clicking on **Enable** and setting the last possible submission date, Figure 8.



Availability

Allow submissions from 6 February 2019 00:00 Enable

Due date 13 February 2019 00:00 Enable

Cut-off date 6 February 2019 14:34 Enable

Remind me to grade by 20 February 2019 00:00 Enable

Always show description

Figure 8

Note that It is important to **turn editing off** when you are done with the editing of your course, Figure 9.



Figure 9

2.2 Assignment marking and plagiarism

To grade the work of your students, you need to enter the Activity section that was created for students to submit their work. Figure 10. A new window will then appear from which you need to click on select **view submissions**, Figure 11. Figure 12 is the window that will appear when view submissions is selected. For each student there is a **grade** icon, Figure 12, which you need to click on to direct you to the grading page (example from INCAMP).



Figure 10

Special Locations Assignment Upload area

You have been assigned a special location from the 17th edition A3 of BS7671 to study and present. The deadline is the 26th of November before class. You may upload your work in the are provided.

Grading summary

| | |
|----------------------|--|
| Hidden from students | No |
| Participants | 13 |
| Submitted | 11 |
| Needs grading | 5 |
| Due date | Thursday, 26 November 2020, 6:00 PM |
| Time remaining | Assignment is due |
| Late submissions | Only allowed for participants who have been granted an extension |

View all submissions | Grade

← SOLUTIONS AEEE41 TEST 1 FALL 2020 | Jump to... | Turned in: Ηλεκτρολογικό σχέδιο A3K ▶

Administration

- Assignment administration
 - Edit settings
 - Group overrides
 - User overrides
 - Locally assigned roles
 - Permissions
 - Check permissions
 - Filters
 - Competency breakdown
 - Logs
 - Backup
 - Restore
 - Advanced grading
 - View gradebook
 - View all submissions
 - Download all submissions
- Course administration

Navigation

- Home
- Dashboard
- Site pages
- My courses
 - Course sample
 - AEEE721 - GRADUATE RESEARCH I (Nicolas)

Figure 11

Special Locations Assignment Upload area

Grading action: Choose...

First name: [AB] A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
Surname: [AB] A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

| Select | User picture | First name / Surname | Email address | Status | Grade | Edit | Last modified (submission) | File submissions | Score |
|--------------------------|--------------|----------------------|-------------------------------|--|-------|------|--------------------------------------|---|-------|
| <input type="checkbox"/> | | MICHAEL MICHAEL | ee50360@stud.frederick.ac.cy | Submitted for grading 6 days 23 hours late | Grade | Edit | Thursday, 3 December 2020, 5:06 PM | Transportable units.pptx Turnitin ID: 1483543516 | 30% |
| <input type="checkbox"/> | | CHRISTOS GEORGIOU | s1007263@stud.frederick.ac.cy | Submitted for grading Graded | Grade | Edit | Wednesday, 25 November 2020, 8:35 PM | Electrical installation in garden... Turnitin ID: 1452126815 | 14% |
| <input type="checkbox"/> | | VASILIOS VASILIOU | s1007371@stud.frederick.ac.cy | No submission Assignment is overdue by: 8 days 15 hours | Grade | Edit | | | |
| <input type="checkbox"/> | | MARIOS KYRIAKIDIS | s1007493@stud.frederick.ac.cy | No submission Assignment is overdue by: 8 days | Grade | Edit | | | |

Administration

- Assignment administration
 - Edit settings
 - Group overrides
 - User overrides
 - Locally assigned roles
 - Permissions
 - Check permissions
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 - Download all submissions
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Navigation

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- My courses
 - Course sample
 - AEEE721 - GRADUATE RESEARCH I (Nicolas)
 - Christofides...
 - EE204 - PHOTOVOLTAIC SYSTEMS (Nicolas)
 - Christofides...
 - AEEE521 - POWER TRANSMISSION LINES

Figure 12

The Turnitin tool for plagiarism is available which assess the plagiarism percentage and displays it for each assignment, Figure 12. When you click on the plagiarism percentage calculated the tool will redirect to a the feedback studio webpage of the Turnitin. From this new window that will open, Figure 13, the tool gives you a detailed match overview for every text similarity detected, Figure 13, Figure 14. Depending on the similarity percentage expected and the one calculated by Turnitin you may act accordingly.

Risks

Due to the nature of the mobile and transportable units, the following risks should be considered:

1. Losing connection to earth due to the use of temporary cable connection, long supply cable runs and repeatable use of cable.
2. All the risks coming from connecting to a different national or local electricity distributor / generators with different supply characteristics and earthing arrangements
3. Impracticality of establishing an equipotential zone external to the unit
4. The open circuit faults of the PEN conductor of PME supply raising the potential in all metalwork including the unit, to dangerous levels.
5. Usually where the unit contains lot of electronics and communications equipment, there is a high risk of shock from high functional current flow in protective conductors.
6. During the transportation of the unit, the vibrations can cause faults within the unit installation.

Match Overview

40%

| | | |
|---|------------------------------|-----|
| 1 | es.scribd.com | 11% |
| 2 | www.urb.org.zm | 10% |
| 3 | www.mobi3ath.com | 10% |
| 4 | Stokes, "Special Install... | 3% |
| 5 | Colas, M., "Special locat... | 2% |
| 6 | BS 118 209, 100 | 2% |
| 7 | www.essys.net | 1% |
| 8 | infostore.sagepub.com | 1% |

Figure 13

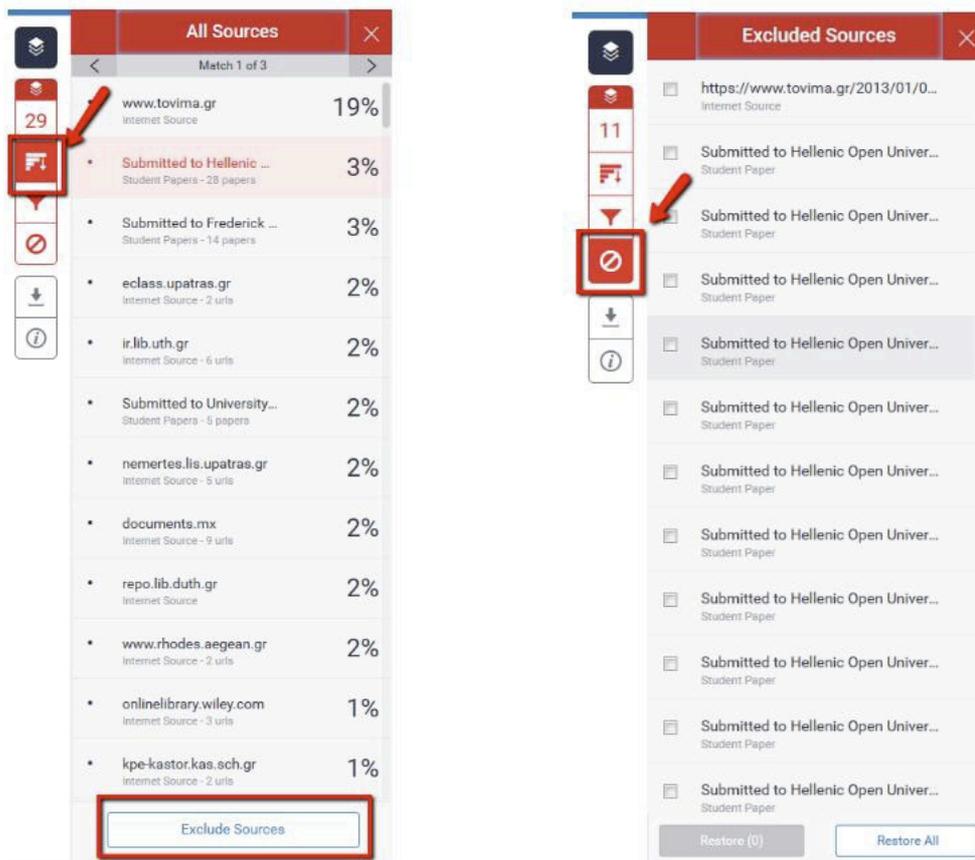


Figure 14

Once you have completed the plagiarism percentage check, close the Turnitin tool from your browser and return to the LEARN platform for further grading, Figure 15 (example from INCAMP).

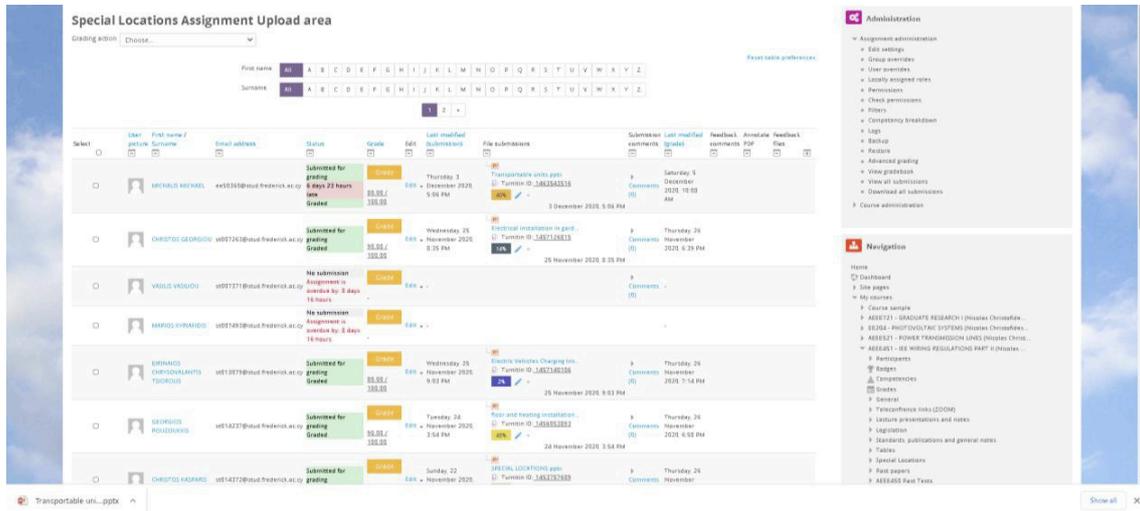


Figure 15

3 GUIDE FOR CREATING A QUIZ

The Quiz enables the instructor to design and create tests containing multiple choice questions, true/false questions, short answer questions and other type of questions. These questions can be categorized and saved so that they can be reused in the future. Quizzes can be attempted multiple of times if required and permitted by the instructor. For every effort the student is graded automatically.

3.1 Adding a quiz to the course and editing it to add questions

Section 3.2 presents a more structured and coordinated way to create a quiz by the use of question banks. This section refers to how to add a quiz as an activity to a specific section or topic of the course and how to edit the quiz to add questions in the quiz.

To create a quiz, you must first login to the platform and enter the course you would like to create a quiz for. Subsequently add a quiz in a specific section or new section that you have created for the quiz, Figure 16 (for example you may create a new section or topic and name it.

First midterm test, or Quiz 1 etc.). Detailed instructions follow in section 3.4 of this guide. You may then edit the quiz and begin adding new questions, Figure 17, Figure 18. Details about the type of questions available and how to create/edit them can be found in section 3.2.

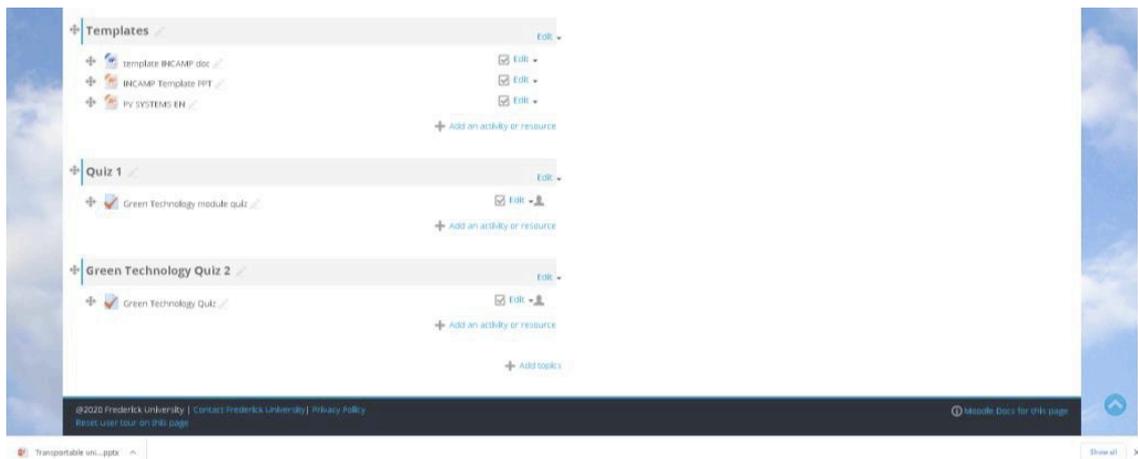


Figure 16

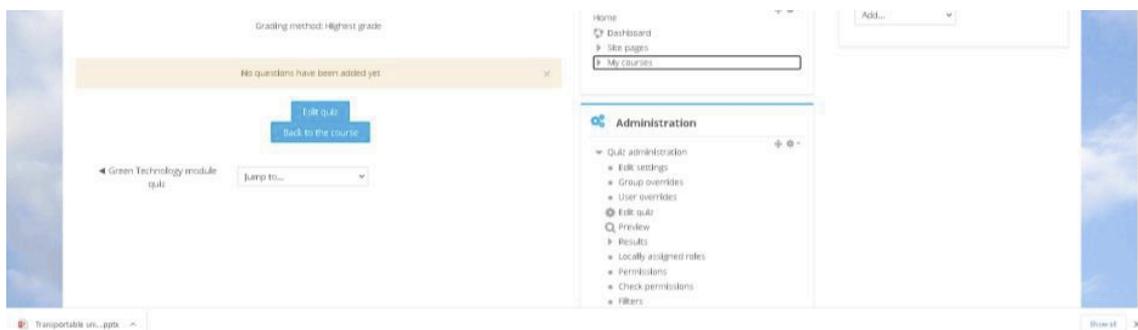


Figure 17

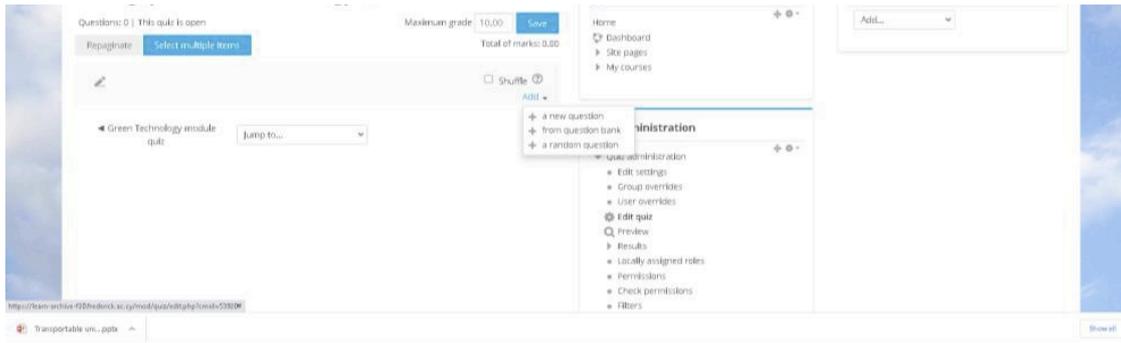


Figure 18

3.2 Creating a question bank

To create a question database (question bank) to be used for a Quiz, you must first login to the platform and enter the course you would like to create a quiz for. Choose the **question bank** option from the **administration** section, Figure 19. In the new window that will appear select new question, Figure 20. At this stage you need to select the type of question/quiz,

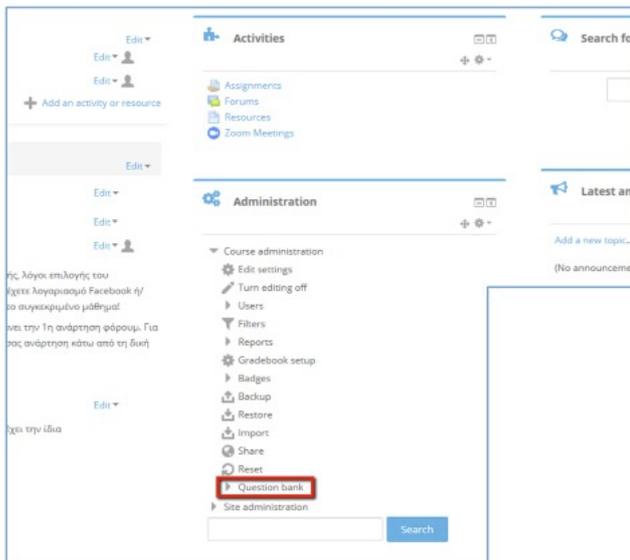


Figure 19

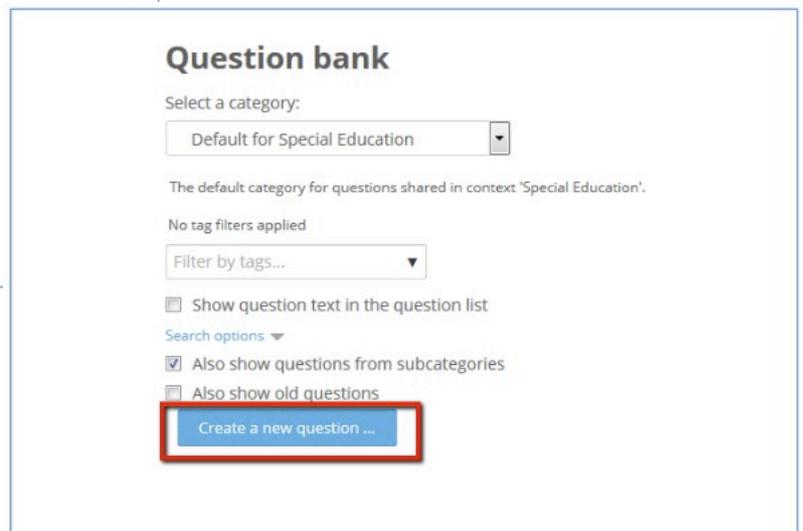


Figure 20

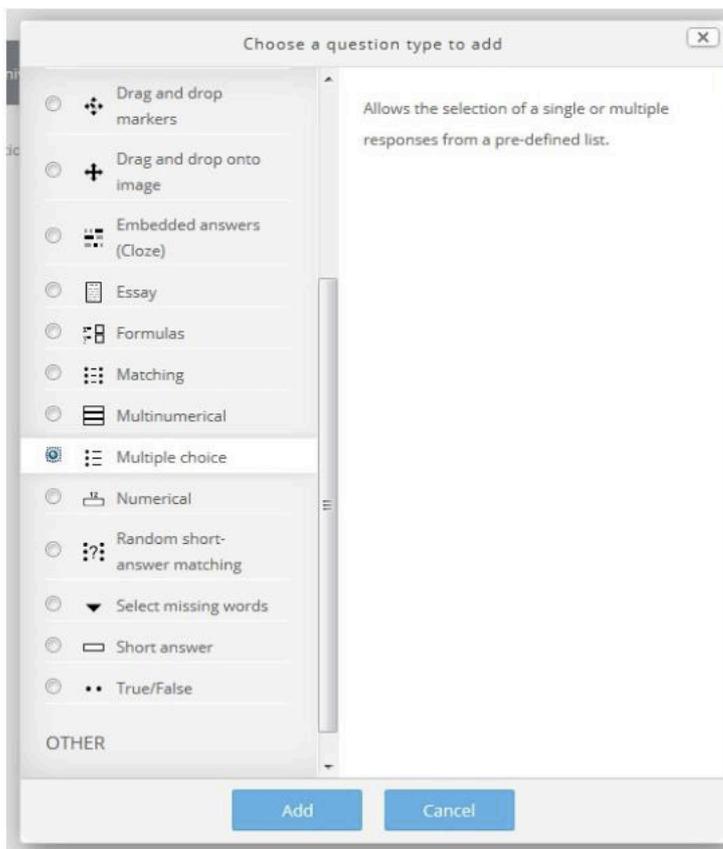


Figure 21

By selecting any type of question from the list, you can see a brief description for each type. Some of the most popular are:

3.2.1 Multiple choice questions

When answering a question (which may include a picture) the student chooses between multiple answers. There are two types of multiple-choice questions. The first is the type with only one correct answer, Figure 22. The second is the type with multiple correct answers and each correct answer is assigned a correctness weight.

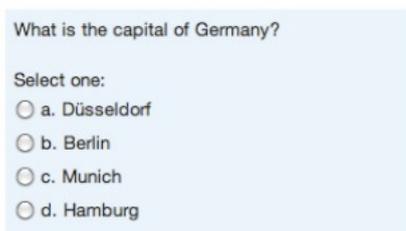


Figure 22

3.2.2 True/false questions

Figure 23 shows an example of a true/false type question:

Sulfur dioxide produces sulfuric acid because of oxidation.

Select one:

True

False

Figure 23

3.2.3 Matching questions

Matching questions provide a list of sub-questions along with a list of possible answers. The student must "match" the correct answer to each question:

Match the invention its inventor.

| | |
|-----------------------------------|--|
| Erik Rotheim, Norway, 1926. | <input type="text" value="Aerosol can"/> |
| Louis S. Lenormand, France, 1783. | <input type="text" value="Parachute"/> |
| Alfred Nobel, Sweden, 1867. | <input type="text" value="Dynamite"/> |
| Thomas A. Edison, U.S., 1877. | <input type="text" value="Phonograph"/> |

Figure 24.

3.2.4 Short answer questions

Short answer questions require students to enter one word or phrase in response to a question. Answers may include more than one correct answer. Acceptable answers can be a word or a phrase, but they must match exactly one of your correct answers. It is a good idea to keep the required answer as short as possible to avoid losing a correct answer that is differently worded, expressed.

3.2.5 Numerical questions

From the student's perspective, a numerical question looks exactly like a short answer because it introduces its answer into a short editing box. The difference is that the answer must be numerical and the answers allowed have an acceptable range of errors. This allows for a continuous range of responses within a certain tolerance of the correct answer, Figure 25.

If you have a piece of string that 3 feet 3 $\frac{3}{4}$ inches long, how many **meters** long is the piece of string?

Answer:

Figure 25

3.2.6 Drag and drop onto image questions

Drag and drop questions require students to drag with their mouse answer blocks and match them to a group of questions. For example, you can ask students to complete a sentence or definition. These questions can be designed so that possible answers can be used more than once or provide various answers for students to choose from that are not all necessarily correct.

3.3 Example of how to create a multiple-choice question

- To make the question available to all your Course Groups, select from the Category the school to which the course belongs.
- Fill in a name in the Question Text field so you can easily locate the question and then write the question.
- Depending on whether you want the question to have one or more correct answers, choose the corresponding selection from the list. Also, if you want to shuffle the answers so that they do not appear in the same order for all students, select **Shuffle the choices**;
- In the Answers fields, Figure 26, enter the choice of answers that will appear for the question. If only one answer is correct select 100%. If more than one answers are correct then choose the respective correctness weight for each answer, for example 50% if there are two correct answers, Figure 27.
- Once you have completed all the answers, click Save Changes at the end of the page.
- Your first question has been created. Add more questions in the same way, following for each question form the platform instructions until the Quiz is completed.

Adding a Multiple choice question

[Expand all](#)

General 

Category  Default for Special Education 

Question name * Ερώτηση 1

Question text *

Πληκτρολογήστε εδώ την ερώτησή σας.

Default mark * 1

General feedback 

One or multiple answers? One answer only 

Shuffle the choices? 

Figure 26

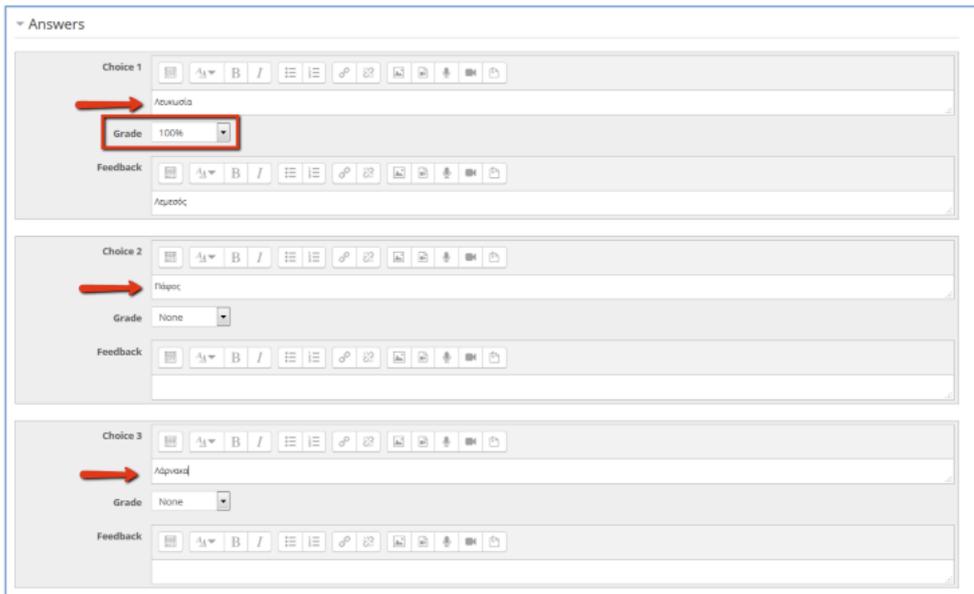


Figure 27

3.4 Adding a quiz to the course

Once you have created all the questions, go back to the course page to add the Quiz.

- turn **editing on** per in the beginning of the instructions, Figure 1, Figure 2.
- Select the topic or week in which you want the quiz and click **Add an activity or resource**. From the list of Activities, select Quiz, Figure 28.

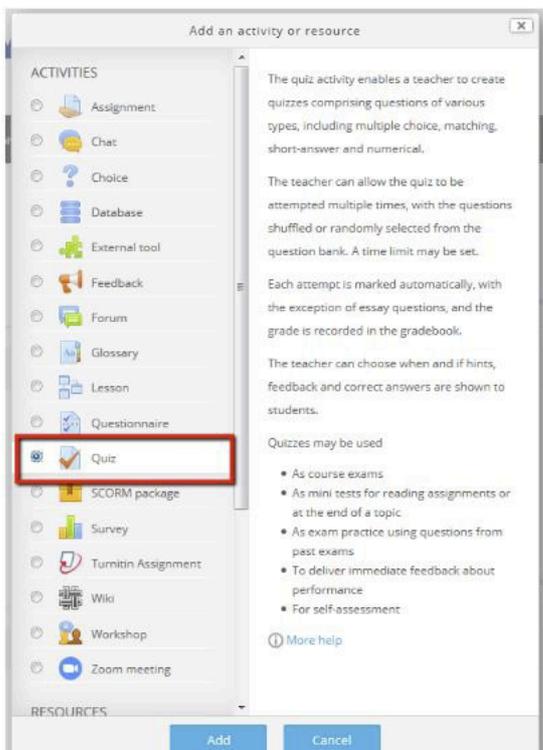


Figure 28

- In the page that will open, you will have to make the necessary settings you want for the Quiz, such as name, description and time and date that the quiz will be available, Figure 29.

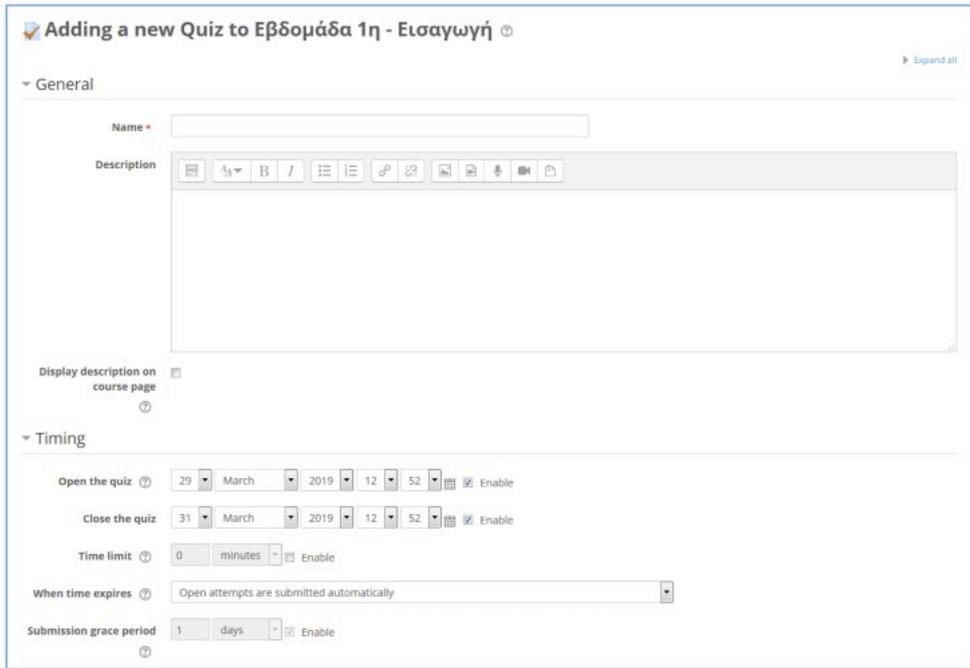


Figure 29

d. To change the order of questions that will appear to each student, select **Yes in Shuffle within questions** from the Question behaviour, Figure 30.

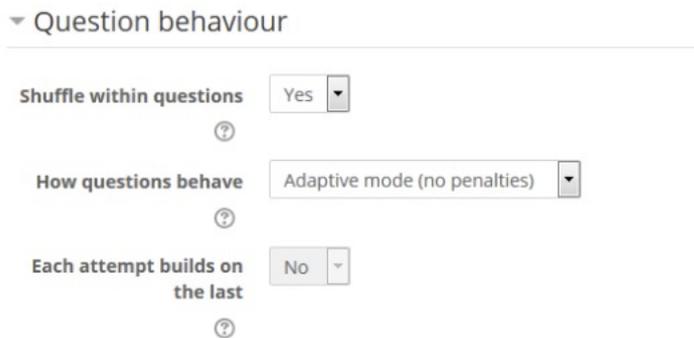


Figure 30

e. Finally, click Save and return to course.

f. To add the questions you created, you must select the Quiz from where you placed it on the course, Figure 31, Figure 32.



Figure 31

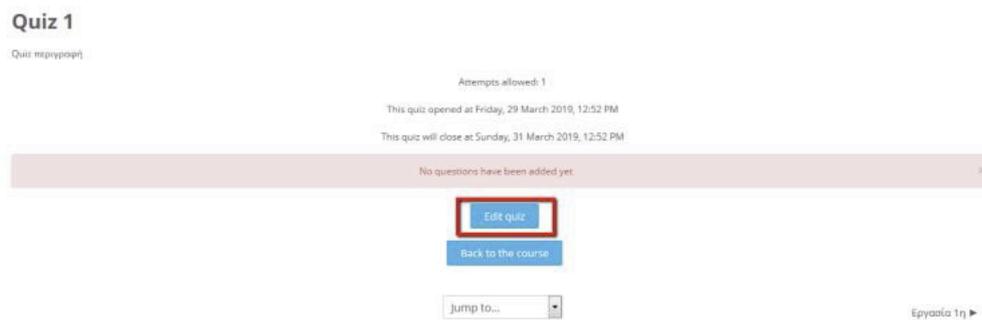


Figure 32

g. Click on add and from the drop-down menu and select **from question bank**, Figure 33. you may also add a **new question** at a time if you want. It is also possible to create a question bank from previously created questions.



Figure 33

h. Make sure that from the category drop down menu you have selected the school where the quiz was initially created (e.g. Special Education). You will find all the questions you created there. Select them and then click on **Add selected questions to the quiz**, Figure 34.

i. Finally click on save and the quiz will be ready for the students.

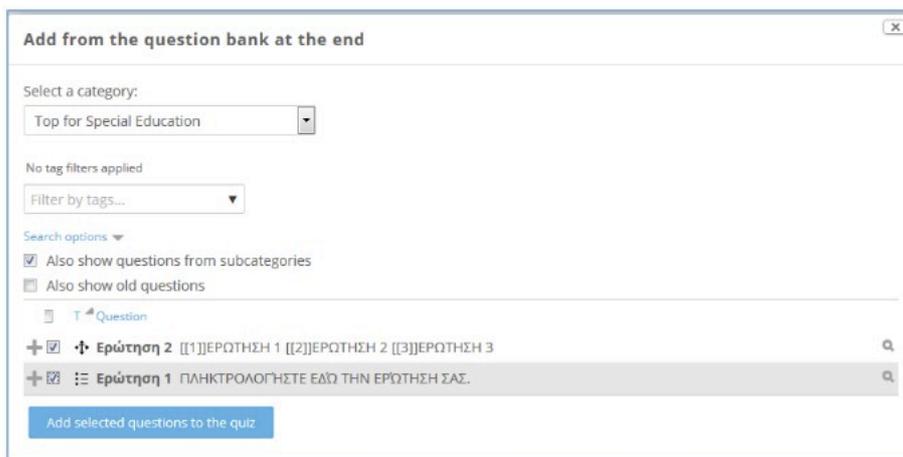


Figure 34

Quickstart Guide

This Quickstart Guide will help you

| | |
|---|----------|
| Set up your teaching space | 1 |
| Add materials for your learners | 2 |
| Get your learners onto your site | 2 |
| Teach better online | 4 |
| Get more information | 5 |

Set up your teaching space

Moodle calls the space where you teach online a 'course'. It can be a course for just one student or for a large group. You can use it for any subject or kind of teaching you like. Here's how:

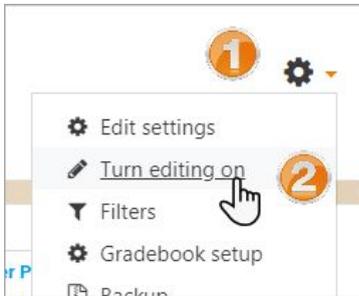
1. Log in with your MoodleCloud account
2. From the left panel (the Navigation drawer) click **Site administration**
3. Click the **Courses** tab
4. Click **Add a new course**
5. Add your course details, using the ? icon for extra help
6. Click **Save and display**
7. Click **Proceed to course content** to add your teaching
8. materials.



[Watch our 3 minute video How can I create a course?](#)

Add materials for your learners

1. Log in and go to the course you made
2. Click the cog icon top right and then click Turn editing on:



3. To add files such as documents or presentations, drag and drop from your desktop (but remember with [MoodleCloud free](#), your storage is limited)



[Watch our 2 minute video: Drag and drop files into Moodle](#)

4. To add other activities, click **Add an activity or resource** wherever you want to add your item:



5. Choose an item from the box that appears. Double click an item to set it up.



[Watch our 3 minute video: How can I add course content?](#)

6. Your MoodleCloud site offers you many different activities. You could begin with:

- **URL:** Add links to useful websites for your learners to visit.
- **Forum:** Set up discussions where learners can respond from home, in their own time.
- **Assignment:** Get learners to submit work in a number of ways
- **Big Blue Button:** See and talk to your learners (*check your MoodleCloud package for restrictions*)

Want to know more? See the section [Get more information.](#)



Get learners onto your site

There are **two steps to take**:

1. Get your learners onto your MoodleCloud site
2. Give your learners access to your teaching materials

If you're in a hurry, you can let them do this themselves. We'll show you how now.

Want to control access yourself? See the section [Get more information](#).

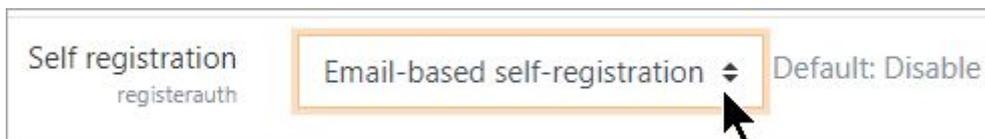
Enable site sign-up

This means learners can create their own accounts on your site. It is quick, but others could create accounts too, so be careful. Remember [MoodleCloud free](#) only allows 50 users.

1. Log in with your MoodleCloud account
2. From the left panel (the Navigation drawer) click **Site administration**
3. Click the **Plugins** tab and scroll down to **Authentication**
4. Click **Manage authentication**
5. Click to open the 'eye' icon of **Email-based self registration**:



6. Scroll down and from the 'Self registration' dropdown section, select **Email-based self-registration**:



7. Scroll down and click the button **Save changes**



[Watch our 2 minute video: How can new users sign up to my Moodle?](#)



Enable course sign-up

This means learners can enrol themselves into the course you made, to access your teaching materials. This is quick, but in theory anyone who creates an account could access your course - so set an **Enrolment key** and share it with your learners only.

1. Click into the course you want your learners to access
2. From the left panel (Navigation drawer) click **Participants**
3. Click the cog icon on the right (above Enrol users) and select **Enrolment methods**
4. Click to open the eye of **Self enrolment (Student)**
5. Click the cog icon to the right of that eye icon to access the settings page.
6. Add an **Enrolment key** which you will share with your learners.

[Watch our 2 minute video: How can learners sign up to my courses?](#)

Inform your learners

1. Email or message your learners, telling them the web address of your MoodleCloud site.
2. Tell them to click "Log in " and then "Create new account"
3. Tell them the name of their course and share the Enrolment key you made.



Teach better online

This quick start guide will do just that: get you started quickly. But if you're new to online teaching, you might want to think about how best to move your classes to an online setting. Here are some tips and links to help you:

Don't try to replicate your face-to-face classes online

Just because you teach several hours a day 'live' doesn't mean you need to do the same online. If you must, then schedule a live BigBlueButton session a couple of times a week using it as Q&A time for issues your students might have when studying at home. Alternatively, record yourself teaching on BBB - but keep it short, much shorter than your usual classes.

Use the Flipped Learning approach

Set your students tasks of doing research, watching an essential video or preparing for a project, and use that occasional live session to gather feedback from them, rather than instructions from you. Let them drive the sessions.

Avoid static resources: embrace interactivity

- It is easy to drag and drop your documents and presentations, but they use up storage space and frustrate learners who have to download them. If you have to, add them to a sharing site such as GoogleDrive and make links to them.
- Aim for alternatives which they have to engage with. Find useful sites/games/webquests you can share as URLs.
- Make the most of Forums by posing a daily teaser, puzzle or ethical dilemma. Promise a reward to the most inspired solutions.
- Encourage them to post sound or video responses in Forums - great for Language teaching or those who struggle to type.
- Add Quizzes with a short video as a 'Description' and questions afterwards to test their understanding.

Keep them posted!

Use the Announcements to stay in touch, informing them of new items you've added, daily challenges, star students etc. Encourage them to download the Moodle app.





MoodleCloud

<https://moodlecloud.com/app/en/>

Check here to see what's available on your MoodleCloud package, and whether you need to upgrade.



YouTube Videos:

[Moodle Admin Basics Youtube Playlist](#)

Want to add courses quickly? Want to re-use existing courses? Prefer to add learners yourself to be safer? These videos will show you how.

[Learn Moodle 3.8 Basics Playlist](#)

While not specifically made for MoodleCloud, these videos explain in detail how to teach with Moodle. You'll learn how to set up assignments, discussion forums, add URLs, get your learners collaborating with each other and much more.

[Learn Moodle Extra](#)

Explore Moodle's more powerful activities with these advanced tutorials enabling you to set up branching scenarios and peer collaboration.



Documentation

These pages form part of Moodle's collaborative documentation wiki. While not specifically aimed at MoodleCloud users, they are still useful.

[Admin Basics documentation pages](#)

A set of pages for new, non-technical Moodle administrators.

[Admin quick guide](#)

A page covering the basics for new Moodle administrators.

[Teacher quick guide](#)

A page covering the basics for new Moodle teachers.





Free MOOCs

Moodle Admin Basics - self-paced, always available, free MOOC on <https://learn.moodle.org/>. Enrol now!

Learn Moodle 3.9 Basics - watch social media for the June launch of this Teaching with Moodle MOOC on <https://learn.moodle.org/>



