



**GoDigital - Integrating mobile learning and upgrading teachers' digital skills:
A tool kit for effective in primary school**

Intellectual Output 5: **GUIDE BOOK**

P6 – Publica Fides Foundation



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1. INTRODUCTION – AIMS AND OBJECTIVES OF IO5

IO.5 – Go DIGITAL From theory to practice: Implementation and evaluation aims to design and implement a Professional Training Programme for teachers to digital skills acquisition in primary schools and utilize all products of the project. IO5 will provide the opportunity (for the first time in most of the partner countries) to implement the project outputs and resources developed, pilot test, evaluate and revise them before they are openly provided to be used at the National and EU level.

The product of the IO5 is this HandBook given to the training organizers, teachers, and open badges searchers will help with the implementation of the training which will enhance the digital skills of the primary school's teachers.

We provide you with materials, forms, and strategies developed by us, as well as ready online training tested by our partnership, assessed and verified by expert groups of Advisory Boards. The Handbook will contain all actions that need to be taken to create effective online training to enhance the digital competencies of the teachers.

The 2016 ‘Digital Skills and Jobs Coalition’ announced as part of the ten key initiatives proposed, reinforces the need of all to help meet the high demand for digital skills in Europe which

are essential in today's job market and society. Europe is lacking digitally skilled persons to fill job vacancies in all sectors, missing out on up to 750,000 Information and Communication Technologies (ICT) professional jobs by 2020. Yet unemployment among young people of 15-24-year-olds is at almost 20% in the EU.

The digital revolution is boosting demand for digital skills and competences, thus requiring investment in infrastructure, organizational change, digital devices and digital competences of educators, and the creation of digital (and open) educational resources and high-quality educational software. Education and training should reap the benefits of new ICT developments and adopt innovative and active pedagogies. Learning can't anymore be

confined to specific classrooms and timetables but take full advantage of technology to break boundaries.

COVID Pandemic was proof that all we need is an enhancement of the digital competencies in educational use. The schools faced distance learning and lockdown of almost all social, educational, and professional activities moved to the Internet without any support, preparation nor skills.

GoDigital project fills the gap in the online education system, giving to the teachers ready on-line training supporting in their development and organization of the on-line classes.

Most important though Europe needs digitally smart young people who are not only able to use but also to innovate and lead in using these technologies.

Research has shown that “teachers are the most important in-school factor affecting students’ outcomes” (TALIS'13).

The GODIGITAL project comes to promote the above as it aims to design, develop, pilot-test, and evaluate a complete tool kit to support primary schools to develop their schools' digital development plan in order to upgrade the digital competences of the teachers and as a consequence the digital literacy of the students.

This TOOL KIT will support primary school teachers to design their DIGITAL DEVELOPMENT PLAN for upgrading current teaching and learning opportunities, through the use of mobile learning and technology (i.e. interactive board, mobile devices, etc.), as well as and e-tools (i.e. DOJO, EDMONTO, CODEDOJO) in ensuring better learning outcomes, enabling communication, participation and social inclusion of all children.

The direct target group of Primary School Teachers who will upgrade their digital competences and use of technology in their teaching methods. This TOOL KIT will guide you thru the open badges skills acquisition. This visual and structured Manual which will include instructions and guidance for participants and organizers of the training.

This guide is divided into the following sections describing related activities, tasks and strategies:

- 1 Open Badges Eco-System
- 2 Inventory Report
- 3 Framework
- 4 GoDIGITAL Assessment-tool
- 5 E-platform & ICT Guide

- 6 Learning modules & Portfolios
- 7 Evaluation procedures
- 8 Implementation of the project

- 9 Templates

2. Open Badges eco-system

Open Badges are a digital representation of skills, learning outcomes, achievements or experience such as:

- Hard skills: knowledge, competences, etc.
- Soft skills: collaboration, communication, etc.
- Participation and community involvement
- Official certification
- Authorization

Open Badge is an innovative system used in the USA and many EU countries for the validation and recognition of learning using the OB technology offered as an open educational resource.

It is a technology which promotes open access and participation of all stakeholders involved

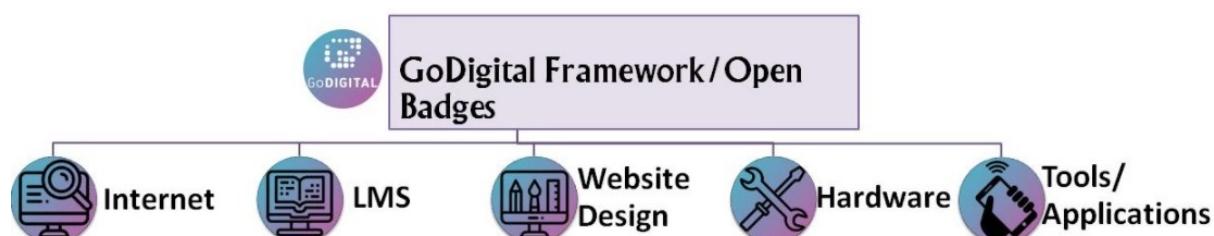
in badges process, while allowing the creation of synergies between the learners-earners (i.e. young people, students), the issuers (i.e. VET Schools, stakeholders, enterprises, NGOs including the VET trainers/ Volunteers as facilitators) and the badge consumers (i.e. employers, formal education, public authorities, official body). This will lead to the endorsement process leading to a transparent, transferable, valid and credible validation of a body of skills and knowledge related to a set of competences, such as coding skills for VET students and teachers.

Open Badges is a very inclusive solution: it enables anyone to get actively involved in designing, testing, implementing and promoting the learning outcomes and achievements.

This is what major European documents on Recognition are calling for, as well as Erasmus+ in emphasizing the “transparency and recognition of skills and qualifications to facilitate learning, employability and labour mobility: priority will be given to actions promoting permeability across education, training and youth fields as well as the simplification and rationalization of tools for transparency, validation and recognition of learning outcomes.

This includes promoting innovative solutions for the recognition and validation of competences acquired through informal, non-formal, digital and open learning” (Horizontal Priorities).

Open Badge is a visual verified evidence of achievement. It has visual part (image) and metadata, which is encoded in the image. Each digital badge must comply with the required standard data fields, such as: issuer, date of issue, description of the badge, link to assessment criteria, link to evidence of what badge owner is claiming, link to specific competence framework and tags, which puts an Open Badge in relation to specific context.



2.1 Open Badges Anatomy

Metadata:

Open Badges standard specifies the required and optional information to be included in the badge image metadata:

Required: Badge name, design, description and criteria

Optional: Evidence, standards, tags

- ✓ Badge issuer ID, badge earner ID and badge issuing time is added during the badge issuing moment.
- ✓ **Badge earner** is identified through an email address.
- ✓ **Badge name** recalls the content of a skill or achievement in few words.

- ✓ **Description** provides with the details of achievement: describes the context, specifies the achievement, refers to completed tasks, explains the assessment procedures.
- ✓ **Criteria** tells about the tasks set by badge issuer and completed by badge earner to qualify for specific badge.
- ✓ **Issuer** maybe an organization, company, institution or private person that issues a badge to recognize learning and achievements.
- ✓ **Evidence** is an optional but very much encouraged data to enrich and backup the claim for specific achievement. It can be of variety of formats: text input, file upload, image, video, badge code or even another badge.



- To design the eco-system where the Open Badge system will develop in order to identify, recognize, and validate the digital skills and competences gained as

specified in the methodology and framework defined in IO1 as the basis and the e-portfolio as a holistic method of assessment.

- To create the links between the methodology and the framework designed in IO1 and the Open Badges, as well as the e-portfolios which will showcase the progress of teachers progress in using ICT.
- To set educational standards and requirement that will enable teachers to add the evidence required for claiming a BADGE to back up their progression of competences from one level to the other according to the eco-system to be developed.
- To promote the use of these two mechanisms offering transparency, visibility, recognition and validity of the digital competences gained and used.
- To initiate the creation of synergies between the schools, labour market, NGOs, institutions, schools, stakeholders, authorities etc. for the endorsement and accreditation of the GoDigital.
- Open Badges and Certificate in an open and digital setting (Erasmus+ Horizontal Priorities).

3. Inventory report

Different approaches and strategies have been adopted from different partners-countries in order to introduce, implement and develop ICT in education and thus to lead into a digital literacy in the school community. Albeit the differences of their strategies and projects, the long-term goal intended was rather the same for all the different partners-countries and

it would be legitimate to describe it as to introduce digital literacy and exploit ICT as a beneficial and all the more profitable tool for school communities and educational practices. However, we may observe an ostentatious and therefore meaningful divergence, in terms of a qualitative analysis, concerning the year of the launch of these approaches. Consequently, a divergence in their achievements would be noticeable as well as a rather striking convergence in their goals. In the manner now being indicated, Greece seems to be the first of the Partnership to tackle and make determined efforts to implement ICT's followed in chronological order by Cyprus(2005), Bulgaria(2006), Poland (2013) and finally Italy. All five partners have embedded in their educational strategy a national policy for digital school recognizing thereby its importance not only as a highly efficient and multifunctional tool in the process of learning and developing pupil's competences but also as a sine qua non component of modern society. That being so, in Greece large-scale projects have introduced digital literacy in the school community and created a "critical mass" of teachers that make full use of and derive benefit from ICT in their school activities.

Different types of strategies and projects for implementation of ICT in education have been developed by the other partners during the past decade. The aims of these strategies are interrelated with ones given prominence to and heightened by EU.

In this regard, Bulgaria set up the present Strategy for Effective Implementation of Information and Communication Technologies in Education and Science of Bulgaria (2014- 2020) with its three pillars – ICT infrastructure, digital content and ICT training of

teachers.

In Poland, the Educational Research Institute carried out the International Computer and Information Competence Survey (ICILS) in 2013 alongside with the PISA study or the International PIAAC Adult Skills Survey and planned the implementation of Poland 2030 strategy.

The Government of Cyprus, since 2005, has initiated an ambitious Educational Reform Programme with the view to turn into reality the vision of a better and more modern educational system that would meet the needs and challenges of the 21st century. As for Italy, a National Plan for the digital school, in synergy with the European and regional programming and with the National Strategic Project for ultra-broadband is being carried out. The common denominator of all those strategies is the modernization of the education system and the improvement of its quality, all by aiming the integration and incorporation of Information and Communication Technologies (ICTs) into the curriculum intended to enhance the everyday educational praxis. Regarding teachers ICTs could and/or should be a means of supporting current pedagogical approaches for teaching, learning, exchanging good practices with colleagues in the and opportunities for continuing education, and for students

a useful tool for learning, problem solving, developing critical thinking and their creative ability. Therefor the target-group of those strategies is the entire school community (students and teachers) considering ICTs as a tool for collaboration among its members and communicating with the society and the rest of the world through the creation of multiple learning communities. It is obvious, from what mentioned above, that a digital strategy for schools

is clearly opposed to techno-central perceptions, which treat ICT as an innovation or as a fashion trend of the era. ICT should be considered as a dynamic tool for cognitive development, which, with the appropriate mediation of the teacher, will contribute to a substantial upgrading of the educational process.

Hence, one could remark that digital educational content is a key priority for primary and secondary education, which is reflected in the design of the national programs for the integration of ICT in school education. In-service teacher training and the development and operation of computational and networking infrastructure and services for schools, that include a national-level school network, school labs, e-classrooms and interactive teaching

systems, are the other two pillars of the national policy, both strongly linked with the provision and exploitation of digital content.

Following the directions of the 2020 digital agenda of Europe and the international trends, and taking into account the recent experiences, the key action lines are:

- a) Focus on the creation of reusable units of learning
 - b) Promote Open Educational Resources (OERs)
 - c) Promote re-using, remixing, and re-purposing of existing digital learning resources
- This project has been funded with support from the European Commission. This communication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.
- d) Improve digital infrastructure to facilitate search, retrieval, access and utilization of digital learning resources for all (teachers, pupils, parents, everyone)
 - e) Promote the active role of teachers and pupils in the creation, documentation and evaluation of digital learning resources.

The current model of integration and use of information and communication technologies (ICT) is the factual model and it stands as a combination of teaching of IT lessons and the simultaneous integration of ICT as a means of supporting the learning process in the various subject areas. It is a combination of technocratic/techno-centric(which puts greater importance to Information Technology (IT) teaching and emphasis on technological innovation) and holistic (which consider as important the cross-thematic and holistic approach to knowledge with emphasis on disseminating ICT-related knowledge to the whole range of the curriculum as well as in the pedagogical innovation).

4. Framework

In this chapter you will find general description of the Modules elaborated during the project and presented with the details in the next part of this guide. The training consists of the following subjects designed by the domain experts:

Module 1: Internet

Module 2: LMS

Module 3. Web Design

Module 4: Hardware

Module 5: Tools & Applications

4.1. Module 1: Internet

Main objective: This module provides information, knowledge and experience on effective and safe internet use for educational purposes by familiarizing learners with information search, selection and management's tools and strategies, either on an individual or in a collaborative basis.

General Description: This module will help the learners to be and keep informed about the most often used search engines and will familiarize them with searching techniques appropriate to support critical information selection. It will also provide them with data management skills (individual or collaborative data creation, storing and sharing data/resources, collaborating and interacting with other users e.t.c.) and knowledge and strategies that both prevent and ensure the safe navigation on the net.

Topic 1: Security/safety on the net

Short description: Internet security is a very important issue. The Internet is primarily a society of people and conceals the same dangers that every society conceals, especially when it facilitates the way people communicate with each other.

The Internet user and especially the teacher should be able to distinguish, avoid and also address any potential risk of the Internet.

Some of the basic skills a teacher is required to have in order to protect himself and his students from possible online hazards are: how to avoid “bad sites”, what malicious software is and how to avoid it, how to remove malware and how to secure Internet accounts. They also have to gain some knowledge about GDPR.

Topic 2: Info search on the net

Short description: Internet can be a rich source of information. The collection of the appropriate digital information (webpages, images, videos) can enhance the multifaceted approach of a subject and help students develop their critical competence and thinking.

The information problem solving process, which requires finding and using information, is a complex cognitive process, since it encompasses the coordination of searching, finding, evaluating and using the most useful, appropriate and valid information in an effective way. The Internet is an integral part of this process, since it provides relatively easy and quick access to information. Typically, searching for information on the Internet is being achieved by using a search engine.

The most important feature of a search engine that makes it a cognitive tool is the opportunities it offers for complex type searches based on Boolean logic.

In this context, the user can not only ask questions on the subject he is looking for, but can also put restrictions and think critically on his research subject. In order for the teacher to guide his/her students towards a cognitive process and the critical choice of information it is necessary to know both the available media options (search engines) and the search techniques that can direct or restrict/refine the search of the information.

This topic will engage the learners in getting acquainted with the most used search engines. It will also support the learners to understand that the most important feature of a search engine that makes it a cognitive tool is the service it offers for complex type searches based on Boolean logic. They will learn how to organize their search on the internet (i.e. find the right keywords, create targeted searches), how to use some search engines (i.e. Chrome, Mozilla Firefox, Safari) in general, how to formulate questions - requests in Data Bases and how to evaluate the results.

Topic 3: Web 2.0

Short description: World Wide Web has evolved a lot since its beginning in the early 1990s. The initial web pages were simple static documents and the only interaction the user could do was to click on a hyperlink to visit another web page. Web 2.0 is a term used for modern web pages that allow advanced interaction through which a user is able to add its own content on the web page. Some web pages also allow to share the user created content between the users and work on it collaboratively. All the features of Web 2.0 are described in this topic.

Topic 4: Info management

Short description: Google Drive is a representative example of an internet application, suitable for information management. It is an online storage space, a cloud. Through this, documents can be sent to or shared with other users. One more important feature is the creation of shared documents, spreadsheets, presentations, tests and questionnaires.

As one of Google applications it is free and as it works on-line. No installation or upgrading is required. So there is no worry about application compatibility problems on different computers. It is simply required a registration, which is free of charge, to obtain a Google Account. It works collaboratively. People can work on the same document at the same time with other users, who have been given the respective rights. In addition, the system keeps a change log, so we can keep track of the progress of the documents and evaluate the contribution of each member of the authoring team. In fact, is a representative example of a digital universal tool that offers alternatives for pedagogical and teaching use in collaborative learning.

It can be used by teachers or students and improve the learning process by offering direct or indirect learning outcomes, as well as contribute to the better organization of everyday instructional practice.

It is especially useful for a teacher to have his/her online hardware stored and access it at any time, to make use of the opportunities of the shared document for collaboration and co-formation. Finally, it's been given him/her the possibility to create tests and questionnaires, conduct surveys, collect, organize, manage and present data. Students can also create shared documents on Google Drive and process them together for a project assigned to them. This promotes collaborative learning. In addition, the teacher can monitor the procedure of the creation and the contribution of each student through the background of the revisions that may occur, as well as to participate with his own observations.

This topic will help learners familiarize themselves on how to open a google account, upload and store documents in Google Drive, share data by giving editing, monitoring or commenting reading rights, create and manage collaborative documents and presentations, create, manage and utilize Google forms for designing questionnaires, collecting and presenting data and online research results or online tests. The above is proposed to be parts of separate sub-topics.

Module 1: Internet

Main Objective: This module provides information, knowledge and experience on effective and safe internet use for educational purposes by familiarizing learners with information search, selection and management's tools and strategies, either on an individual or in a collaborative basis.

General knowledge:	Searching info on the Internet and managing the data gathered using safe and effective strategies for educational purposes
General skills:	- Using existing search engines and familiarizing with searching techniques appropriate to support critical information selection for educational purposes

	<ul style="list-style-type: none"> - Data management skills (individual or collaborative data creation, storing and sharing data/resources, collaborating and interacting with other users e.t.c.) - Knowledge and strategies that both prevent and ensure the safe navigation on the net
General competences:	Ability to search info safely on the net and manage the data collected
Topics:	Learning Outcomes:
1.1 Security/safety on the net	1.1.1 Get to know how to avoid “bad” sites 1.1.2 Introduction to malware – Get to know how to avoid it 1.1.3 Get to know how to remove malware 1.1.4 Get to know how to secure Internet accounts 1.1.5 Get to know GDPR
1.2 Search info on the net	1.2.1 To be able to use Internet 1.2.2 To effectively search information in Internet
1.3 Web 2.0	1.3.1 To comprehend the usefulness of Web 2.0 tools and be able to effectively use them according to our particular needs
1.4 Info management	1.4.1 Get to know how to upload, store and organize the data collected in the cloud (Google Drive) 1.4.2 Get to know how to share the data collected in the cloud (Google Drive) 1.4.3 Learn about Google Documents’ User Permissions 1.4.4 Get to know how to create and share a Google Document 1.4.5 Get to know how to create and share a Google Form 1.4.6 Get some ideas on how to use pedagogically the possibilities of Google Drive

4.2. Module 2: LMS

Main objective: This module provides information on different aspects of digital communication, sharing resources through online tools, linking with other online users, collaborating through digital tools, interacting with and participating in communities and networks etc.

General Description: This module will support the learner to understand the major concerns about digital communication and discover rules of etiquette when communicating online, by

managing digital identity. This module will support the learner to understand why use social media for professional purposes and how to interact and share through digital technologies , by learning how to use E-communication tools (Facebook, LinkedIn, Viber/WhatsApp, Twitter, Skype) for professional purposes. This module will support the learner, also to get engaged in citizenship through digital technologies and understand how much social media interaction is appropriate for professional growth, and the importance of collaborating through digital technologies.

Topic 1: Netiquette

Short description: This topic will engage the learner in discovering the benefits of digital communication for efficiency of the jobs market and understand the major concerns about digital communication. Netiquette is a combination of the words network and etiquette, and is defined as a set of rules for acceptable online behaviour. Through this topic, the learner will understand the rules of etiquette that apply when communicating over the Internet or social networks; and will learn new media literacy to improve their communication skills as an e- worker (Video conferencing, Telephone calls, Instant messaging, Email).

Topic 2: Use social media/tools for professional purposes

Short description: Social media now complements many parts of our lives. Learning how to use e-communication tools (Facebook, LinkedIn, Viber/WhatsApp, Twitter, Skype) and many other social networking sites allow users to share and interact with online content and to connect with people, making it a powerful tool to use in a professional context. This topic will support the learner to understand why to use social media for professional purposes and the roles of sharing resources and looking for information using social media.

Topic 3: Personal branding online

Short description: To have success on the job market and make efficient use of your digital skills, you must know how to promote yourself online and learn the steps to building your personal brand on social media. This module will support the learner to understand how much social media interaction is appropriate for professional growth and how to become part of personal learning networks by building your e-profile and learning interacting with and participating in communities and networks.

Module 2: LMS

Main objective: This module provides information on different aspects of digital communication, sharing resources through online tools, linking with other online users, collaborating through digital tools, interacting with and participating in communities and networks etc.

Topics:	Learning Outcomes:
2.1 Netiquette	<p>2.1.1 Digital communication for jobs Understand the major concerns about digital communication.</p> <p>2.1.2 Rules of etiquette when communicating online Understand the rules of etiquette that apply when communicating over the Internet or social networks.</p> <p>2.1.3 How to improve your skills using communication tools Learn new media literacy to improve your communication skills as an e-worker (Video conferencing, Telephone calls, Instant messaging, Email)</p>
2.2 Use social media/tools for professional purposes	<p>2.2.1 The value and use of social media as communication tool Understand why use social media for professional purposes.</p> <p>2.2.2 How to share content online Understand roles and sharing resources through online tools</p> <p>2.2.3 How to look for information online Learn how to look for information using social media</p> <p>2.2.4 E-communication tools (Facebook, LinkedIn, Viber/WhatsApp, Twitter, Skype) Learn how to use E-communication tools (Facebook, LinkedIn, Viber/WhatsApp, Twitter, Skype) for professional purposes</p>
2.3 Personal branding online	<p>2.3.1 How to promote yourself Learn steps to building your personal brand on social media</p> <p>2.3.2 Growing your PLN (personal learning networks) Understand how much social media interaction is appropriate for professional growth?</p> <p>2.3.3 Build your profile Learn interacting with and participating in communities and networks.</p>

4.3. Module 3: WEB Design

Main objective: This module is a compendium of knowledge on the creation and ways of positioning websites made with the help of the free WordPress content management system. The course will prepare you to independently perform such a site from designing

correct layout to correct content, graphic design and typography by installation to the editing of the advanced additions. The training is based on the dynamically developing WordPress development environment, which effectively presents content and graphics on the Internet.

General Description: During realization of this Module, the participants will discover the functionalities of WordPress and the main aspects of the system. They will learn how to plan website in order to meet needs and expectations of website users. They will know web design tools and they get to know how to fit graphics, color, transparency, and typography for purposes of the website. During realization of this module, they will discover how to choose an appropriate layout, format text and how the website users will use and perceive the information and functionalities that designer want to present.

They get to know browsers functioning and bases of interactivity as well as responsivity of web pages. They will learn how to positioning the website in order to reach visibility to different groups of users, how to use keywords and google analytics in order to optimize website functioning.

Topic 1: Fundamentals of the Web

Short description: The trainees will get to know how web pages work. They will get to know the Internet and World Wide Web domain names, domain names and hosting, the language of the web, the evolution of the web and web standards. They will learn to separate structure, style and interactivity and design for the web. They get to know their audience, specific ways of perception of different groups of recipients. They will learn that their site's viewers are impatient and understand how their audience will read the web content - how to designing for the screen. Practical exercises will be based on free domains and commonly used websites by schools and educational institutions.

Topic 2: Website Planning, functionalities and main aspects of the frequently used systems.

Short description: The trainees will discover the techniques of planning and managing used in website design. They will learn the crucial role of the goals of web design, the difference between print design and web design. They discover that the web demands user interaction. They will be familiarized with the notion of the user experience and will learn

how to define it. The trainer will present user-centered design, the stages of the planning process. The trainees will get to know defining goals and strategy, using research, scenarios and characters as well as information architecture. They will be able defining the navigation design and rethinking site navigation. They get to know the role of usability testing, wireframes, prototypes, and mockups. They will train the evolving field of interactive prototypes and will use creativity during the planning process.

The participants will learn how to perform system configuration. They will learn about the main functionalities of the system and its capabilities. They will learn to add pages, creating articles, tags, tag cloud, using keywords, creating a menu. They will train widgets management: adding, removing, repositioning. They will learn to add photos and videos as well as photo gallery installation and adding plugins. The trainees will get to know connecting to social portals Facebook, Twitter, user registration and deletion, granting rights to users, downloading, installing and updating modules.

Topic 3: Layout, Typography and Formatting (Graphics, Color, Transparency).

Short description: During realization of this topic, learners will be working with a CSS reset file. They will get to know a brief history of layout techniques on the web and an overview of page layout options. They will be understanding the divs: creating a two-column fixed-width CSS layout and the CSS float property. They will be creating columns with the float property and working with the clear property while creating a list-based navigation using floats. Adding text styles, the effect of margins and padding on your fixed-width layout, using margins and padding for layout, styling the footer with a background image they will build their own page layout.

During the implementation of this topic, participants will learn the graphic design of the site in accordance with the principles of typography, composition and use. They will be taught optimizing graphics for the web, resizing the image, adjusting the image size, applying the Unsharp Mask filter to an image, selecting the best image format, choosing the right file format, choosing the best file format for your image, saving images as JPEGs, choosing the quality of a JPEG, previewing the image, creating a transparency effect in a JPEG image. In addition,

they will learn saving settings and images, slicing an image, viewing the completed file, creating slices, changing their attributes and saving slices out of Photoshop.

During the implementation of this theme, participants will be familiar with the importance of typography on the web and they get to know the challenges of fonts on the web. They will learn how setting a font-family, sizing text with CSS, transforming text with CSS, working with HTML lists and styling HTML lists. The participants will get to know that pixels and points are not the best choices and will train the best solutions for using a combination of the percent and the measurement, using margins to modify the space between text as well as setting paragraph line-height.

Topic 4: Browser Compatibility and Webpage Responsibility and Security

Short description: During the implementation of this topic, participants will learn why browser testing is important. They will find answer at the question: Are web pages required to look the same in all browsers? Knowing that they will be trained to choose the level of browser support they want. They will know the tools to identify browser problems and how to predict future browser compatibility issues

During the implementation of this topic, participants will understand the need to optimize websites for mobile devices. They will also learn how to adapt websites for responsiveness based on the differences between a computer network and mobile interfaces. They will learn how to solve problems with style sheets and choose the type of mobile devices that the site is going to use using CSS3 media queries.

During the implementation of this topic, participants will learn the basic information about browsers and find out what the browser is. They will learn how browsers algorithms and browsers engines work. They will learn how to be noticed by the search engine, use Google Analytics, external links, internet activity and keywords.

They will learn to position in Google Maps; Location of the company in Google Maps, positioning in Google Maps results.

During the implementation of this topic, participants will get to know the rules of data protection based on [**General Data Protection Regulation \(GDPR\)**](#). They will also learn how to create and use cookies for do not violate EU law and regulation related to privacy and

the protection of personal data. It introduces robust requirements that will raise and harmonize standards for data protection, security, and compliance. The participants will get to know comply with GDPR requirements that may apply to their activities. The participants, as a website owners may will learn General Data Protection Regulation (GDPR) and the ePrivacy Directive (ePR) affect use cookies and online tracking of visitors from the EU. They will know divers ways of cyber phishing and how to protect their website against that.

Module 3: Website Design

Main Objective: This module is a compendium of knowledge on the creation and ways of positioning websites made with the help of the free content management system. The course will prepare you to independently perform such a site from designing correct layout to correct content, graphic design and typography by installation to the editing of the advanced additions. The training is based on the dynamically developing WordPress development environment, which effectively presents content and graphics on the Internet.

General knowledge:	Creating and administration of websites, positioning, management the content for educational purposes
General skills:	Designing website regarding the perception of users Communicating with the diver tools and media Using the ICT with the security requirements
General competences:	Ability to use the website and ICT environment to diver and attractive the education and knowledge transfer
Topics:	Learning Outcomes:
3.1 Fundamentals of the Web	3.1.1 Get to know how web pages work. 3.1.2 Get to know the Internet and World Wide Web domain names, domain names and hosting, the language of the web, the evolution of the web and web standards. 3.1.3 Get to know how to separate structure, style and interactivity and design for the web. 3.1.4 Get to know the audience, specific ways of perception of different groups of recipients. They will learn that their site's viewers are impatient and understand how their audience will read the web content - how to designing for the screen.
3.2 Website Planning, functionalities and main aspects of the frequently used systems.	3.2.1 To discover the techniques of planning and managing used in website design. 3.2.2 Get to know the crucial role of the goals of web design, the difference between print design and web design. 3.2.3 Get to know how to profit the user experience and will learn how to define it. 3.2.4 Get to know how to project user-centered design, the stages of the planning process. 3.2.5 Get to know defining goals and strategy, using

	<p>research, scenarios and characters as well as information architecture. They will be able defining the navigation design and rethinking site navigation.</p> <p>3.2.6 Get to know the role of usability testing, wireframes, prototypes, and mockups. They will train the evolving field of interactive prototypes and will use creativity during the planning process.</p> <p>3.2.7 Get to know the main functionalities of chosen systems and their capabilities.</p> <p>3.2.8 Get to know how to add pages, creating articles, tags, tag cloud, using keywords, creating a menu.</p> <p>3.2.9 Perform widgets management: adding, removing, repositioning.</p> <p>3.2.10 Get to know how to add photos and videos as well as photo gallery installation and adding plugins.</p> <p>3.2.11 Get to know connecting to social portals Facebook, Twitter, user registration and deletion, granting rights to users, downloading, installing and updating modules.</p>
3.3 Layout, Typography and Formatting (Graphics, Color, Transparency).	<p>3.3.1 Get to know a brief history of layout techniques on the web and an overview of page layout options. T</p> <p>3.3.2 Get to understand the divs: creating a two-column fixed-width CSS layout and the CSS float property.</p> <p>3.3.3 Get to know creating columns with the float property and working with the clear property while creating a list-based navigation using floats.</p> <p>3.3.4 Get to know how Adding text styles, the effect of margins and padding on your fixed-width layout, using margins and padding for layout, styling the footer with a background image they will build their own page layout.</p> <p>3.3.5 Get to know the graphic design of the site in accordance with the principles of typography, composition and use.</p> <p>3.3.6 They will be taught optimizing graphics for the web, resizing the image, adjusting the image size, applying the Unsharp Mask filter to an image, selecting the best image format, choosing the right file format, choosing the best file format for your image, saving images as JPEGs, choosing the quality of a JPEG, previewing the image, creating a transparency effect in a JPEG image.</p> <p>3.3.7 Get to know saving settings and images, slicing an image, viewing the completed file, creating slices, changing their attributes and saving slices out of Photoshop.</p> <p>3.3.8 Get to know the importance of typography on the web and the challenges of fonts on the web.</p> <p>3.3.9 Get to know how setting a font-family, sizing text with CSS, transforming text with CSS, working with HTML lists and</p>

	styling HTML lists.
3.4: Browser Compatibility, Webpage Responsibility and Security	<p>3.4.1 Get to know why browser testing is important.</p> <p>3.4.2 Get to know what are differences between different browsers.</p> <p>3.4.3 Will be able to choose the level of browser support they want.</p> <p>3.4.4 Get to know the tools to identify browser problems and how to predict future browser compatibility issues</p> <p>3.4.5 Get to understand the need to optimize websites for mobile devices.</p> <p>3.4.6 Get to know how to adapt websites for responsiveness based on the differences between a computer network and mobile interfaces.</p> <p>3.4.7 Get to know how to solve problems with style sheets and choose the type of mobile devices that the site is going to use using CSS3 media queries.</p> <p>3.4.8 Cookies functionalities and role.</p>

4.4. Module 4: HARDWARE

Main objective: The module 4 will provide primary school teachers with basic information about hardware, problem fixing and use of interactive whiteboard as a tool for encouraging and supporting classroom dialogue, while incorporating it in the classroom and daily curriculum.

General Description: Interactive Whiteboard is an innovative tool, which can enrich the educational process and support teaching performances of the primary school teachers by engaging students in the interactive activities and assignments, thus enhancing the quality of primary school education. The Module 4: HARDWARE - aims to provide primary school teachers with competencies needed to design educational resources while using IWB and to integrate them into everyday teaching activities, and at the same time supporting their confidence while working with computer, by providing information about hardware and how to tackle hardware issues.

Topic 1: Hardware

At the beginning, a short introduction to hardware will be provided. The teachers will get to know what is hardware, its components and function. They will learn how to deal with the most common technical issues related to hardware, e.g. how to connect an external hard

drive, how to fix internet connection problems, how to display computer screen to projector, etc.

Topic 2: Interactive Whiteboard

Short description: The second topic will present general overview of Interactive Whiteboard. The learners will get acquainted with information what is IWB, its history, softwares, main settings and actions. By the end of this chapter, teachers should be able to reflect on their personal teaching environment and determine why an IWB is essential for their everyday practice.

Topic 3: Interaction with the Interactive Whiteboard

Short description: This topic will introduce general operations and use of Interactive Whiteboard. Through this topic learners will understand how to interact with the board by providing information about its potentialities and tools like viewing and interacting with the internet web pages, taking notes, dragging objects, page recording capabilities, screen-shade, blind, curtain or reveal tools, pens and highlighters, using stylus, etc.

Topic 4: Creating lessons using Interactive Whiteboard

Short description: The fourth topic focuses on practical use of different tools offered by Interactive Whiteboard, which can be applied on a lesson. Through this topic teachers will learn how to create an interactive lesson by utilizing variety of tools of Interactive Whiteboard. Different types of instructional strategies/techniques will be introduced to teachers in order to support and facilitate the learning process of students with different styles of learning. The last topic will also include practical examples of activities, which can be integrated into their everyday teaching practice.

Module 4: Hardware

Main Objective: The module 4 will provide primary school teachers with basic information about hardware, problem fixing and use of interactive whiteboard as a tool for encouraging and supporting classroom dialogue, while incorporating it in the classroom and daily curriculum.

General knowledge	Learners will gain general knowledge of computer hardware and use of Interactive Whiteboard in the classroom.
General skills	Ability to apply knowledge and use know-how to complete

	tasks, prepare lessons and solve problems connected to computer hardware and Interactive Whiteboard.
General competences	Ability to use Interactive Whiteboard autonomously and responsibly in educational environment. Ability to solve hardware problems in the classroom.
Topics:	Learning Outcomes:
4.1 Hardware	4.1.1 Understand what is computer hardware 4.1.2 Understand what is internal and external hardware 4.1.3 Hardware problem fixing 4.1.4 Know how to use and plug/unplug external devices 4.1.5 Know how to solve internet connection problems 4.1.6 Be able to use projector
4.2 Interactive Whiteboard	4.2.1 Know introduction to IWB and its history 4.2.2 Understand general use of IWB and setting up, 4.2.3 Know how to choose a suitable software, 4.2.4 Understand how to use Stylus, 4.2.5 Being able to orient IWB
4.3 Interactive Whiteboard tools and potentialities	4.3.1 Understand the potential of IWB tools 4.3.2 Understand how to use Stylus
4.4 Use of Interactive Whiteboard for creating lessons	4.4.1 Creating interactive lessons 4.4.2 Facilitate different learning styles 4.4.3 Know examples of exercises you can do on IWB 4.4.4 Know different resources

4.5. Module 5: TOOLS / APPLICATIONS

Main objective:

The main objective of the Module 5 is to prepare primary school teachers for searching, selection, valuation and practical use of ICT tools and internet applications in the teaching and learning process, adequately to the assumed learning outcomes and in accordance with the pupils' educational needs.

General Description:

The Module 5 relates directly to ICT tools and internet applications that can be used in the teaching and learning process, in the context of primary school. These tools are presented in relation to selected didactic methods, ex.: educational project, digital storytelling, social learning, analytical and evaluation methods, but most of all it is biased around the content curation method. The teachers will develop both a theoretical orientation in the range of available tools and applications demonstrating the potential for education (getting tips on specific proposals for such computer programs), as well as practical skills related to their sourcing and use in the teaching process. In the Module 5 the emphasis is on shaping teachers' skills regarding to the independent search of tools and applications, critical evaluation of their educational potential and ability to properly design educational tasks and activities with their use. This Module focuses also on the issue of "content curation" - as a didactic method and its selected tools supporting responsible, systematic and critical collection, aggregation, classification and use of internet content and data – both by the teacher and by the learners (pupils). The teachers will be prepared both theoretically and practically to use the method and tools of "content curation" in their own didactic work (as methods of sharing Internet content to pupils and creating common educational workspaces in the Internet environment) and in the context of developing pupils' information and media skills (as methods of independent pupil's actions with the use of internet content).

Each application presented in this Module will be described in terms of:

- learning outcomes obtained through its use,
- advantages and disadvantages for the educational process,
- the possibility of using during the lesson and independent pupil's work.

Topic 1: Content curation method

Short description: The first part of the Module 5 focuses on the issue of "content curation" as a method of teaching and learning, referring to pedagogical theories of constructivism and connectivism. "Content curation" involves searching, filtering, then grouping and

organizing, and then providing relevant content on a given topic. The educational potential of this method of work lies in the fact that the "content curator" independently decides on the selection of the material, the manner of its organization and the form and purpose of sharing it with users. In addition to presenting the "content curation" method and its main assumptions, teachers will also learn the most popular tools used in this process, easy to adopt also in school environment. The content that is included in this section of the Module 5 contains:

- "Content curation" as a method used in education (assumptions, developed competences, the possibility of using in a teacher's and pupil's work at school);
- Selected tools for "content curation":
 - Scribble (www.scribble.com) - gathering, organizing content
 - Scoop It (www.scoop.it) - organizing and sharing content
 - Getpocket (www.getpocket.com) – collecting content from web pages
 - Voki (www.vokic.com) – web based educational environment.

Topic 2: Tools and applications that support development of media and creative competences

Short description: This section of the Module 5 presents the tools and applications that support development of pupils' media competences (searching, selection, organizing, creative processing of media content) and creativity (creating and sharing original media content). Hence, this part of the Module 5 will promote among teachers the use of tools and applications for digital storytelling method (simple programs for image and sound processing, comic book creation tools, multimedia books and posters making), creation of photomontages, collages, graphics. The content that is included in this section of the Module 5 contains presentation of the following tools and programs:

- PowerPoint (www.microsoft.com) – creating presentations
- Prezi (www.prezi.com) – creating presentations
- GIMP (www.gimp.org) - editing and processing of photos
- Lightworks (www.lwks.com) - video editing and processing
- Easel.ly (www.easel.ly) – Creating infographics
- Storybird (storybird.com) – creating multimedia stories and e-books

Topic 3: Tools and applications facilitating pupils group and project work

Short description: In this part of the Module 5 there are particularly presented the tools and applications that support pupils group work (tools supporting group communication, real-time interactive collaboration tools) and facilitate the implementation of group educational projects (simple task management tools, virtual boards, applications used in design thinking). The content that is included in this section of the Module 5 contains presentation of the following tools and programs:

- Easyclass (www.easyclass.com) – complete classwork environment
- Trello (trello.com) - organizing class and project work

Topic 4: Tools and applications used in educational analytical and evaluation methods

Short description: In this part of the Module 5, teachers will learn about the most popular internet tools used in developing pupils' analytical skills but also skills related to processing and presenting of data and information. They will have the opportunity to learn on simple tools and applications for creating mind maps, infographics, information materials. Useful tools in the teacher's work can also be simple programs allowing to prepare tests, quizzes and interactive tasks for pupils. Therefore, this section of the Module 5 contains examples of applications that facilitate not only interesting and engaging learning, but also evaluation of its effects. The content of this section includes presentation of the following tools and programs:

- Mindmeister (www.mindmeister.com) - creating mind maps, simultaneous work
- Mindomo (www.mindomo.com) - creating mind maps
- Quizizz (www.quizizz.com) - creating learning games

Module 5: Tools/Applications

Main Objective: The main objective of the Module 5 is to prepare primary school teachers for searching, selection, valuation and practical use of ICT tools and internet applications in the teaching and learning process, adequately to the assumed learning outcomes and in accordance with the pupils' needs.

General knowledge:	Information on the methodical use of selected tools and internet applications in order to effectively achieve the assumed learning outcomes and develop pupils' competences.
General skills:	The practical use of selected applications and online tools in the teaching and learning process. Independent preparation of multimedia teaching materials using web tools.
General competences:	Attitude of openness to educational innovations that increase the effectiveness and attractiveness of teaching and learning processes. Independent search of applications with educational use.
Topics:	Learning Outcomes:
5.1 "Content curation" as a method of using ICT tools and web applications in education	<p>5.1.1. To use the "content curation" method as an effective way to organize own work, expand own professional knowledge and collect educational materials</p> <p>5.1.2. To use "content curation" as a method of developing pupils' competences related to the collection, selection, classification, organization and sharing of information retrieved online</p> <p>5.1.3. To use selected "content curation" tools as a way to individualize the teaching process and self-study activities of pupils</p>
5.2 Tools and applications that support development of media and creative competences	<p>5.2.1. To search, select and practically apply tools and applications in the educational process</p> <p>5.2.2. To develop pupils' media competences and creativity with use of selected internet tools</p> <p>5.2.3. To create multimedia stories / comics, posters and use them in the teaching process</p> <p>5.2.4. To develop pupils' creative attitude and motivate them to express their opinions and ideas through various means (film, image, music, graphics)</p> <p>5.2.5. To prepare multimedia didactic materials of various character (video materials, graphics, images)</p>
5.2 Tools and applications facilitating group and project work of pupils	<p>5.3.1. To choose and select the right tools and applications adequately to the designed didactic methods and learning outcomes</p> <p>5.3.2. To use tools and applications to develop pupils' communication, organizational and managerial skills</p> <p>5.3.3. To organize group work in a virtual environment</p> <p>5.3.4. To monitor and coordinate pupils' work using online tools</p> <p>5.3.5. To develop own information and media competences</p>

	and to broaden knowledge about the use of ICT applications and tools in self-education and class management
5.4 Tools and applications used in educational analytical and evaluation methods	<p>5.4.1. To know and develop information on the possibilities of using analytical and evaluation tools in the teaching and learning process</p> <p>5.4.2. To use selected applications in the design of educational activities focused on the development of pupils' analytical competence</p> <p>5.4.3. To use selected web applications in the evaluation of pupils' school achievements</p>

5. GoDIGITAL Assessment-tool

The assessment and validation process for digitally literate teachers and schools through the use of Open Badges and e-Portfolios

Have at your disposal the eco-system where the Open Badge system are designed in order to identify, recognize, and validate the digital skills and competences gained as specified in the methodology and framework defined in IO1.

Assessment procedure:

Stage 1: A self-assessment process was created to define the primary school teachers current digital skills (as defines in IO1). For each module (6 modules – IO1) are designed 5 multiple choice questions for each topic. For each question there are 3 possible answers and 1 answer is the correct.

Stage 2: After the self-assessment procedure and the implementation of the GODIGITAL Programme (implementation) , a final assessment procedure was designed for the primary school teachers to evaluate their digital skills after the pilot-testing (implementation). Each module consists of 10 multiple choice questions taken from the self-assessment quiz with 3 possible answers and 1 answer is correct.

Users will have 2 attempts to pass the final assessment tests. After they successfully pass the tests will earn the appropriate Badges for each module and/or the overall (super-badge) after receiving all the badges.

Primary school teachers follow a self-assessment process to define their current digital skills and literacy. For each module (5 modules) are designed 5 multiple choice questions for each topic. For each question there are 3 possible answers and 1 answer is the correct.

Below you can find ready assessment questionnaires as per Module and per topic.

5.1. Assessment Validation – self-assessment procedure

Module 1 – Internet

Topic 1: Internet Safety	
Question 1: Choose the option that is not an internet threat	
Option 1	Internet addiction
Option 2	Malware
Option 3	Instant Messaging
Correct answer	Instant Messaging
Question 2: In order to avoid “bad” sites someone has to ...	
Option 1	use internet filters
Option 2	stop using web browsers
Option 3	know the exact URL of each web page he /she wants to visit
Correct answer	use internet filters

Question 3: Choose the option that is not malicious software

Option 1	virus
Option 2	rogue security software
Option 3	Trojan scanner online software
Correct answer	Trojan scanner online software

Question 4: In order to remove malware someone has to ...

Option 1	create back up files of his/her data first
Option 2	stay connected in the Internet
Option 3	perform a disk format immediately
Correct answer	create back up files of his/her data first

Question 5: Secure your Internet accounts ...

Option 1	by using the same password for all of them (easy to remember)
Option 2	by writing down the passwords on your mobile phone (always close to you)
Option 3	by using different and hard to remember passwords for each one of them
Correct answer	by using different and hard to remember passwords for each one of them

Topic 2: Internet and Information Searching
Question 1: Google Chrome is:

Option 1	a web search engine
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Option 2	a web browser
Option 3	a web page
Correct answer	a web browser

Question 2: teachersgodigital.eu is:

Option 1	a web page address
Option 2	an e-mail address
Option 3	a web search engine
Correct answer	a web page address

Question 3: Which one is not a web search engine:

Option 1	Google.com
Option 2	Duckduckgo.com
Option 3	Mozilla Firefox
Correct answer	Mozilla Firefox

Question 4: What is the most appropriate keywords to search information about the Minoan Palace of Knossos:

Option 1	Minoan Palace
Option 2	Knossos Minoan Palace
Option 3	Knossos
Correct answer	Knossos Minoan Palace

Question 5: With the SafeSearch setting in Google.com search engine:

Option 1	the search results are filtered so that to exclude offensive or sexually explicit results
Option 2	the search results are inspected for viruses
Option 3	instructions are presented of how to make safe searches
Correct answer	the search results are filtered so that to exclude offensive or sexually explicit results

	explicit results
Topic 3: Web 2.0 tools	
Question 1: A Web 2.0 tool is a web page:	
Option 1	simply presenting information to the user
Option 2	created in 2000
Option 3	that allows users to create their own content in it
Correct answer	that allows users to create their own content in it
Question 2: A file created using a Web 2.0 tool:	
Option 1	is accessible only from the computer in which the user created it
Option 2	is accessible from any device
Option 3	is accessible from any internet connected device
Correct answer	is accessible from any internet connected device
Question 3: A file created using a Web 2.0 tool:	
Option 1	can be viewed by anyone that has an internet connected device
Option 2	can be viewed only by those who have been given the appropriate privileges by its owner
Option 3	can always be viewed only by its owner
Correct answer	can be viewed only by those who have been given the appropriate privileges by its owner
Question 4: A file created using a Web 2.0 tool should be:	
Option 1	kept in a backup every time we make a change in it so that to avoid losing it
Option 2	is stored on the cloud and thus we are safe that we will not lose our files
Option 3	we never keep backup of our files
Correct answer	is stored on the cloud and thus we are safe that we will not lose our files
Question 5: To use a Web 2.0 tool:	

Option 1	we have to download and install it in every device in which we want to use it
Option 2	does need any installation as it runs on a web browser
Option 3	none of the above
Correct answer	does need any installation as it runs on a web browser

Topic 4: Info management-Google Drive

Question 1: Files and folders created or uploaded on Google Drive is being saved...

Option 1	In a free space in the cloud for some days
Option 2	In a space where the user needs to pay for
Option 3	In a free space in the cloud
Correct answer	In a free space in the cloud

Question 2: The creator/manager of a Google Document can invite collaborators to:

Option 1	Edit or View only
Option 2	Edit, View or Comment
Option 3	Edit only
Correct answer	Edit, View or Comment

Question 3: Any change made in Google Docs can be saved...

Option 1	Automatically
Option 2	By clicking on “save” option
Option 3	By using a key combination on the keyboard

Correct answer	Automatically
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Question 4: For the creation of the content of a Google Form we can use:

Option 1	Plain text
Option 2	Videos or/and photos/images
Option 3	All the above
Correct answer	All the above

Question 5: What is/are the more important advantage(s) of Google Drive' use in education?

Option 1	The opportunities given to get to know the application
Option 2	The opportunities given for collaborative work
Option 3	The opportunities given to get acquainted with ICT
Correct answer	The opportunities given for collaborative work

Module 2 –LMS

Topic 1: Creating a course in Moodle

Question 1: What can be changed operating with the Preferences in the account setting?

Option 1	Course Title
Option 2	Course Format
Option 3	Whether receiving notification through e-mail or pop up
Correct answer	Whether receiving notification through e-mail or pop up

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Question 2: How can I get rid of the Administration block from course webpage?

Option 1	Clicking on gear icon and selecting Delete block
Option 2	Dragging the Administration block in the trash bin
Option 3	Administration block cannot be deleted because it is too important
Correct answer	Administration block cannot be deleted because it is too important

Question 3: How can I provide students with learning material in a Moodle Topic?

Option 1	Attaching a video
Option 2	Making available course gradebook
Option 3	All above options
Correct answer	Attaching a video

Question 4: How can edit text in a Moodle lesson?

Option 1	Text written by teacher cannot be added, only PDF documents can be integrated in a lesson
Option 2	Using ATTO HTML editor provided by Moodle platform
Option 3	Only Administrator can add text for a lesson
Correct answer	Using ATTO HTML editor provided by Moodle platform

Question 5: What is Moodle's in-line help?

Option 1	A link to an educational website about the topic
Option 2	A link to a forum where Moodle experts can support users

Option 3	A circle with a question mark inside of it , that if clicked pops up an explanation of the feature
Correct answer	A circle with a question mark inside of it , that if clicked pops up an explanation of the feature

Topic 2: Course Resources

Question 1: What is a book?

Option 1	A link to a book online
Option 2	A collection of pages built by the teacher
Option 3	A reference in a bibliography section of Moodle
Correct answer	A collection of pages built by the teacher

Question 2: What is a Folder in moodle?

Option 1	A collection of PDFs
Option 2	A link to a folder of teacher's pc
Option 3	A resource to keep course page organized and easier to navigate
Correct answer	A resource to keep course page organized and easier to navigate

Question 3: Resources and activities are...?

Option 1	Course page components represented by links leading to a variety of different tools like links, pages, videos etc.
Option 2	The way Moodle calls PDFs
Option 3	The same thing
Correct answer	Course page components represented by links leading to a variety of different tools like links, pages, videos etc.

Question 4: What is needed to add a resource to a lesson?

Option 1	Being the teacher
Option 2	Being administrator

Option 3	Providing a password before the addition of each resource
Correct answer	Being the teacher

Question 5: A label is...?

Option 1	A Moodle resource that allows to quickly add multimedia, like videos
Option 2	A description of the resource
Option 3	A hash tag of the resource
Correct answer	A Moodle resource that allows to quickly add multimedia, like videos

Topic 3: Course Activities

Question 1: A question ...

Option 1	can be re-used in different quizzes
Option 2	are kept in the Question bank
Option 3	is a mandatory to be allowed to pass to the next lesson
Correct answer	are kept in the Question bank

Question 2: in Moodle assignments...

Option 1	can be submitted whenever students likes
Option 2	is the only tool the teacher has to receive learning feedback from students
Option 3	must always be typed by students directly within the platform with Moodle editor
Correct answer	is the only tool the teacher has to receive learning feedback from students

Question 3: Question banks are...?

Option 1	A database created by the teacher where he can pick questions for quiz
Option 2	A database where teacher can share questions to be used outside the Moodle platform

Option 3	Links to an online payment database of questions where teacher can find ideas for lesson quiz
Correct answer	A database created by the teacher where he can pick questions for quiz

Question 4: Select the missing word is...?

Option 1	A Moodle activity that can be added in a lesson Correct
Option 2	A game and not a question
Option 3	A Moodle activity that can be added in a lesson Correct
Correct answer	A Moodle activity that can be added in a lesson Correct

Question 5: A quiz is...?

Option 1	Can be a collection of games
Option 2	Another way to call questions
Option 3	There is no feature called quiz in Moodle
Correct answer	Can be a collection of games

Topic 4: Managing Course Participants
Question 1: If a teacher cannot cancel a student from his classroom it means that ...

Option 1	That student was pre-loaded by Administrator
Option 2	Student has not yet left the course
Option 3	He can never cancel students unless he is also an Administrator
Correct answer	That student was pre-loaded by Administrator

Question 2: Communicating through forums or through messages is different because

Option 1	Messages cannot be sent to the whole classroom
Option 2	Messages cannot be sent to a selected group of students
Option 3	Forums are a global announcement for all the classroom

Correct answer	Forums are a global announcement for all the classroom

Question 3: A gradebook is...?

Option 1	A book where grades of assignments have to be copied manually by the teacher to keep track of students' advances
Option 2	A way for the teacher to see all the submissions to an assignment
Option 3	A place where students can grade the quality of course
Correct answer	A way for the teacher to see all the submissions to an assignment

Question 4: A User report is...?

Option 1	Customizable by the teacher with all the indicators he judges useful for tracking students' progress
Option 2	Reporting only grades
Option 3	A simple list of all submissions performed by a student
Correct answer	Customizable by the teacher with all the indicators he judges useful for tracking students' progress

Question 5: Grouping students...?

Option 1	Is a tool available for students for studying together
Option 2	None of the above options
Option 3	Is possible only for students of the same class/age
Correct answer	None of the above options

Module 3 – Web Design

Topic 1: Fundamentals of the Web

Question 1: What is the HTML? Select the true statements.

Option 1	It is a suitable environment for sharing the web pages.
Option 2	It allows describing the content, appearance, and behavior of the web page.
Option 3	It translates easy to understand domain names into hard to remember IP address.
Correct answer 3	It allows describing the content, appearance, and behavior of the web page.

Question 2: What is the responsive web design? Select the true statements.

Option 1	It is an approach which suggests that design and development should respond to the user's behavior and environmental conditions such as screen size, resolution, platform and orientation (portrait or landscape).
Option 2	It gives us much more possibilities for positioning elements on the web page.
Option 3	It began to offer to host users websites on servers of these services, without the client needing to own the necessary equipment required to operate the website.
Correct Answer 1	It is an approach which suggests that design and development should respond to the user's behavior and environmental conditions such as screen size, resolution, platform and orientation (portrait or landscape).

Question 3: What are the domain names? Select the true statements.

Option 1	They are IP addresses which contain only numbers, so they are hard to remember by the human.
Option 2	Domain names are easy to read and remember by the human addresses of servers, which contain web sites.

Option 3	Domain names are no more supported in contemporary web browsers, such as Google Chrome, Mozilla Firefox and Microsoft Edge.
Correct answer 2	Domain names are easy to read and remember by the human addresses of servers, which contain web sites.
Question 4: . To create the interactivity on the web page, we should use ... Select the true statements.	
Option 1	JavaScript language (JS)
Option 2	Flash technologies
Option 3	Each chosen between above mentioned
Correct answer 3	Each chosen between above mentioned
Question 5: The responsive web design facilitate to use website on ... Select the true statements.	
Option 1	Only PC
Option 2	All above, switching the web fit to user's behavior and environmental conditions such as screen size, resolution, platform and orientation (portrait or landscape)
Option 3	iPhone and/or tablet
Correct answer 2	All above, switching the web fit to user's behavior and environmental conditions such as screen size, resolution, platform and orientation (portrait or landscape)
Topic 2: Website Planning, functionalities and main aspects of the frequently used systems	
Question 1: What is done in the method called scenarios and characters? Select the true statements.	
Option 1	Finding a detailed answer to the question: „Why does this website need to exist?”

Option 2	The user can easily jump to any of the main pages with a single click with the navigation bar on every page.
Option 3	Considering possible scenarios and characters, you should define the navigation design.
Correct answer 3	Considering possible scenarios and characters, you should define the navigation design.

Question 2: What can be done using the WordPress Media Uploader tool? Select the true statements.

Option 1	You can upload the image you want to use from your computer by dragging it into the upload area
Option 2	You can create interactive prototypes.
Option 3	You can change your gallery settings like number of columns, title and caption positioning, margins, heights, thumbnail sizes, image dimensions, etc.
Correct answer 1	You can upload the image you want to use from your computer by dragging it into the upload area

Question 3: What can be done using the BuddyPress plugin? Select the true statements.

Option 1	You can grant rights to users.
Option 2	You can add video on your website.
Option 3	It turns your WordPress site into a social network allowing you to build your own online community.
Correct answer 3	It turns your WordPress site into a social network allowing you to build your own online community.

Question 4: What are Meta keywords? Select the true statements.

Option 1	The most important words in the content
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Option 2	The tags used for definition of thee keywords related with the content of the webpage.
Option 3	The words defining understanding of the news
Correct answer 2	The tags used for definition of thee keywords related with the content of the webpage.
Question 5: Add Gallery button above the post editor is used for a purposes? Select the true statements.	
Option 1	To bring up a popup where you can choose the gallery you created right now
Option 2	click to choose the gallery and then select the insert button
Option 3	All above
Correct answer 3	All above

Topic 3: Layout, Typography and Formatting (Graphics, Color, Transparency)

Question 1: What is optimizing of the graphics? Select the true statements.

Option 1	During this process, there is consideration which proportions of the pixel (width to height ratio) will be the most appropriate and crop the image to fixed dimensions.
Option 2	The target of it is to reduce the file size of the image for faster downloading, without compromising the quality of the picture.
Option 3	Downloading several smaller packets of information on the web.
Correct answer 2	The target of it is to reduce the file size of the image for faster downloading, without compromising the quality of the picture.

Question 2: What is anti-aliasing? Select the true statements.

Option 1	It is a technique used in computer graphics that allow smooth out the
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	naturally jagged edges of objects such as text or any area where a transition in tonal values is required.
Option 2	Finding a balance among the quality you want and speed of download of it your viewers want.
Option 3	Purposely breaking a rule if you know it well and are doing it to make an experiment.
Correct answer 1	It is a technique used in computer graphics that allow smooth out the naturally jagged edges of objects such as text or any area where a transition in tonal values is required.

Question 3: What is Unsharp Mask feature? Select the true statements.

Option 1	Sharpens the image based on levels of contrast while keeping the areas that don't have contrasting pixels smooth
Option 2	It adjusts the file size and quality of your images.
Option 3	It simulates the transparency effect in JPEG format.
Correct answer 1	Sharpens the image based on levels of contrast while keeping the areas that don't have contrasting pixels smooth

Question 4: CSS navigation menus are used commonly in standards-based design due to they can easily be updated and modified, and because ... Select the true statements.

Option 1	They are picture based
Option 2	They are object-based
Option 3	They are text-based
Correct answer 3	They are text-based

Question 5: What are pixels? Select the true statements.

Option 1	The set of triangles that make up a computer image
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Option 2	The complex building blocks of a digital image
Option 3	The basic logical unit in digital graphics. Pixels are combined to form a complete image, video, text or any visible thing on a computer display.
Correct answer 3	The basic logical unit in digital graphics. Pixels are combined to form a complete image, video, text or any visible thing on a computer display.

Topic 4: Browser Compatibility and Webpage Responsibility and Security

Question 1: What should you do to maximize how often your customers see your business in local search results? Select the true statements.

Option 1	Enter complete data and verify my location.
Option 2	Choose the level of the web browser.
Option 3	Identify an user via their device.
Correct answer 1	Enter complete data and verify my location.

Question 2: What you are able to make to have a better local ranking on Google? Select the true statements.

Option 1	The set of a dots or squares on a computer monitor displaying screen.
Option 2	Use media queries in CSS3.
Option 3	Create an additional stylesheet.
Correct answer 1	The set of a dots or squares on a computer monitor displaying screen.

Question 3: What is a web cookie? Select the true statements.

Option 1	It is a technology invented by the Google to place your company on Google Maps.
Option 2	It is a small piece of data sent from a website and stored on the user's

	device by the user's web browser while the user is browsing.
Option 3	It is a virtualization environment.
Correct answer 2	It is a small piece of data sent from a website and stored on the user's device by the user's web browser while the user is browsing.

Question 4: Which from mentioned below is not Browser? Select the true statements.

Option 1	Chrome
Option 2	Java Script
Option 3	Mozilla
Correct answer 2	Java Script

Question 5: What is the role of "cookies" in the website? Select the true statements.

Option 1	They can be used as the game
Option 2	They are necessary to design of the web
Option 3	Small text files stored in a web user's browser directory or data folder, useful for on visitors' browsers to retain login credentials, identify customers, and provide a customized shopping experience .
Correct answer 3	Small text files stored in a web user's browser directory or data folder, useful for on visitors' browsers to retain login credentials, identify customers, and provide a customized shopping experience .

Module 4 – Hardware

Topic 1: Hardware

Question 1: What are the four basic components of a computer?

Option 1	Input devices, output devices, printing, and typing
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Option 2	Input devices, processing unit, storage, and output devices
Option 3	Input devices, CPU, output devices, and RAM
Correct answer	Input devices, processing unit, storage, and output devices

Question 2: Which two are the parts of external hardware?

	Motherboard and RAM
Option 2	Hard Drive and printer
Option 3	Keyboard and mouse
Correct answer	Keyboard and mouse

Question 3: If your internet is very slow, the most likely problem is in?

	Internet connection
Option 2	Router
Option 3	Weather
Correct answer	Internet connection

Question 4: The projector is ____ device

	Networking
Option 2	Optical
Option 3	Storage
Correct answer	Optical

Question 5: When you are unplugging the device, what should you click?	
Option 1	Safely Remove
Option 2	Cancel
Option 3	Delete
Correct answer	Safely Remove

Topic 2: Interactive WhiteBoard

Question 1: What is an interactive whiteboard?

Option 1	An interactive whiteboard, also known as a smart board, is an interactive display in the format of a whiteboard that reacts to user input either directly or through other devices.
Option 2	It is a general term for the various kinds of programs used to operate computers and related devices.
Option 3	It describes the physical aspects of computers and related devices.
Correct answer	An interactive whiteboard, also known as a smart board, is an interactive display in the format of a whiteboard that reacts to user input either directly or through other devices.

Question 2: Every interactive whiteboard system requires three basic components:

Option 1	Flash drive, projector and the interactive whiteboard.
Option 2	Mouse, computer and projector.
Option 3	Computer, projector and the interactive whiteboard.

Correct answer	Computer, projector and the interactive whiteboard.
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Question 3: Why do we need to orient the IWB?

Option 1	In order to synchronise the system with the Internet
Option 2	To be able to download the lessons
Option 3	To ensure your touch is registered accurately with the touch surface
Correct answer	To ensure your touch is registered accurately with the touch surface

Question 4: Which brands are currently most dominant on the IWB market?

Option 1	Promethean, ActivInspire
Option 2	Promethean, SMART
Option 3	SMART, OpenBoard
Correct answer	Promethean, SMART

Question 5: How the IWB should be placed in the classroom?

Option 1	The board should be placed in a bright, sunny room. The teacher should be able to reach the top of the board and the pupils and least the bottom. Teacher should be able to stand from the right side and kids from the left side of the board.
Option 2	The board should be positioned on an empty wall, away from sun and glare from the windows, somewhere where the class can see it easily and users can stand from both sides. The teacher should be able to reach the top of the board and kids should be able to reach at least the half.
Option 3	It is advised, that the board should be placed on a decorated wall in

	order to invoke interest of kids.
Correct answer	The board should be positioned away from sun and glare from the windows, somewhere where the class can see it easily and users can stand from both sides. The teacher should be able to reach the top of the board and kids should be able to reach at least the half.

Topic 3: Interaction with the Interactive WhiteBoard

Question 1: In general, software applications designed for use with interactive whiteboards contain the following features:

Option 1	Pages, pens & highlighters, Interactive activities, backgrounds & objects, digital galleries, page recording capabilities.
Option 2	Interactive activities, backgrounds & objects, page recording capabilities, pages recording capabilities, learning styles.
Option 3	Page recording capabilities, interactive activities, pages, pens & highlighters, interactive activities, learning styles, engagement.
Correct answer	Pages, pens & highlighters, Interactive activities, backgrounds & objects, digital galleries, page recording capabilities.

Question 2: What does spotlight/searchlight tool stand for?

Option 1	It is a tool for searching on the Internet.
Option 2	It allows teacher or student to explore individual parts or aspects of the screen. You can use the tool during a presentation to draw attention to an area of a screen.
Option 3	This tool helps teachers to create a presentation.

Correct answer	It allows teacher or student to explore individual parts or aspects of the screen. You can use the tool during a presentation to draw attention to an area of a screen.
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Questions 3: Stylus can be used as:

Option 1	Mouse, to select tool, navigate, scroll, draw or erase objects
Option 2	Software, which have some patterns and educational types that are available for teaching
Option 3	Projector, optical device that projects an image onto a surface
Correct answer	Mouse, to select tool, navigate, scroll, draw or erase objects

Question 4: Is it possible to record activities happening on the IWB?

Option 1	Yes.
Option 2	No.
Option 3	You can record only videos you play on the IWB.
Correct answer	Yes.

Question 5: What are pens and highlighters?

Option 1	Their main purpose is to apply colour or patterns to a document. The objects tool can be used for drawing or hiding other information. Both of these features have the option to add animation to it.
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Option 2	These tools are used to write and draw on the IWB. They can also be used to take a snapshot of the screen, highlight a specific area by creating a spotlight around it or use a magnifier to enhance a portion of the screen.
Option 3	These are a large bank of ready-made images, multimedia and subject specific tools that can be easily incorporated into a lesson or presentation.
Correct answer	These tools are used to write and draw on the IWB. They can also be used to take a snapshot of the screen, highlight a specific area by creating a spotlight around it or use a magnifier to enhance a portion of the screen.

Topic 4: Use of Interactive Whiteboard for creating lessons

Question 1: Which are the main benefits of using IWB in the classroom?

Option 1	Makes structuring lessons easier, Learning process is becoming more enjoyable, Limits interaction between teacher and student, Allows review and revision of lessons,
Option 2	Makes structuring lessons easier, Learning process is becoming more enjoyable, Interaction between teacher and student, Allows review and revision of lessons, Appropriate for students with various disabilities
Option 3	Makes structuring lessons easier, Enlarge paperwork, Learning process is becoming more enjoyable, Interaction between teacher and student, Allows review and revision of lessons, Appropriate for students with various disabilities
Correct answer	Makes structuring lessons easier, Learning process is becoming more enjoyable, Interaction between teacher and student, Allows review and revision of lessons, Appropriate for students with various disabilities

Questions 2: Which from the activities can you do on IWB?

Option 1	Creating games, record lessons, using Internet
Option 2	Saving lessons, create presentations, providing feedback
Option 3	All of them
Correct answer	All of them

Question 3: Which learning style can interactive whiteboard support?

Option 1	Visual learners only
Option 2	Auditory learners, Kinaesthetic learners
Option 3	Visual, Auditory, Kinaesthetic learners
Correct answer	Visual, Auditory, Kinaesthetic learners

Question 4: Where can you find useful resources for your lesson?

Option 1	Facebook
Option 2	PBS Learning Media
Option 3	Kahoot
Correct answer	PBS Learning Media

Question 5: What kind of exercises can you do on Interactive whiteboard?

Option 1	Cloze exercise, Sorting, Text-disclosure activities
Option 2	Using a picture as a stimulus for discussion, Sentence structure
Option 3	All of them
Correct answer	All of them

Module 5 — Tools and Applications

Topic 1: “Content curation” as a method of using ICT tools and web applications in education

Question 1: What is the main role of the teacher in contemporary information society?

Option 1	Information provider.
Option 2	Information checker.
Option 3	“Curator” that helps to find the right information from variety of data.
Correct answer	“Curator” that helps to find the right information from variety of data.

Question 2: The main goal of use ICT in school is:

Option 1	To provide fast and accurate information
Option 2	To make the learning process more attractive
Option 3	All of the above is correct
Correct answer	All of the above is correct

Question 3: What is the PBL method beginning from?

Option 1	Giving the set of information by a teacher.
Option 2	Showing the advantages of common work.
Option 3	Giving the problem to be solved.

Correct answer	Giving the problem to be solved.
Question 4: Which application is definitely not usable for establishing content curation method?	
Option 1	Scribble
Option 2	Voki
Option 3	GIMP
Correct answer	GIMP
Question 5: The content curation method is derived from:	
Option 1	Genetical engineering
Option 2	Education itself
Option 3	Art and media
Correct answer	Art and media
Topic 2: Tools and applications that support development of media and creative competences	
Question 1: Which free tool will be the most suitable to create the tableau made of class photographs?	
Option 1	Microsoft Word
Option 2	Prezi
Option 3	GIMP
Correct answer	GIMP
Question 2: What kind of competences can be developed through using following set of tools: Prezi, Lightworks, Gimp?	
Option 1	Social.
Option 2	Intercultural.
Option 3	Creative
Correct answer	Creative.

Question 3: Which application will be the most suitable to create presentation with educational materials?

Option 1	Microsoft Word
Option 2	Microsoft Excel
Option 3	Microsoft Power Point
Correct answer	Microsoft Power Point

Question 4: In the Lightworks application you can work with:

Option 1	Text mainly
Option 2	Pictures
Option 3	Videos
Correct answer	Videos

Question 5: The method that can be very attractive for developing intra- and interpersonal communication with using Storybird application is:

Option 1	Fast reading
Option 2	Language acquisition
Correct answer	Storytelling

Topic 3: Tools and applications facilitating group and project work of pupils

Question 1: The most important factor in society to have a success in work is:

Option 1	Ambition
Option 2	Knowledge
Option 3	Cooperation
Correct answer	Cooperation

Question 2: Which of these tools can be the best solution for proper communication inside the project group of pupils?

Option 1	Gimp.
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Option 2	Quizizz.
Option 3	Trello
Correct answer	Trello.

Question 3: Easy class or Trello are the best solutions for working with which method?

Option 1	Affirmative
Option 2	Delivery
Option 3	Problem based
Correct answer	Problem based

Question 4: Choose the complete ICT educational environment:

Option 1	Trello
Option 2	Adobe Acrobat
Option 3	Easyclass
Correct answer	Easyclass

Question 5: What cannot you do with Easyclass?

Option 1	Communicate with students outside the class
Option 2	Do an assessment by quizzes
Option 3	Create an anonymous post.
Correct answer	Create an anonymous post.

Topic 4: Tools and applications used in educational analytical and evaluation methods

Question 1: Mindmeister or Mindomo are tools mainly for:

Option 1	Visualising dreams from the students' minds
Option 2	Creating educational atmosphere in the group
Option 3	Creating mind maps
Correct answer	Creating mind maps

Question 2: The most important feature of using ICT tools in the process of evaluation is:

Option 1	It can help teacher in gathering information about pupils
Option 2	It reduces unjust assessment
Option 3	It minimizes the stress usually associated with tests, exams, etc.
Correct answer	It minimizes the stress usually associated with tests, exams, etc.

Question 3: What tool can be used if the teacher wants to create funny and non-stressful test?

Option 1	Adobe Acrobat
Option 2	Prezi
Option 3	Quizizz
Correct answer	Quizizz

Question 4: Creating mind maps is important for:

Option 1	Analyzing gathered data
Option 2	Visualizing the data
Option 3	All of the mentioned
Correct answer	All of the mentioned

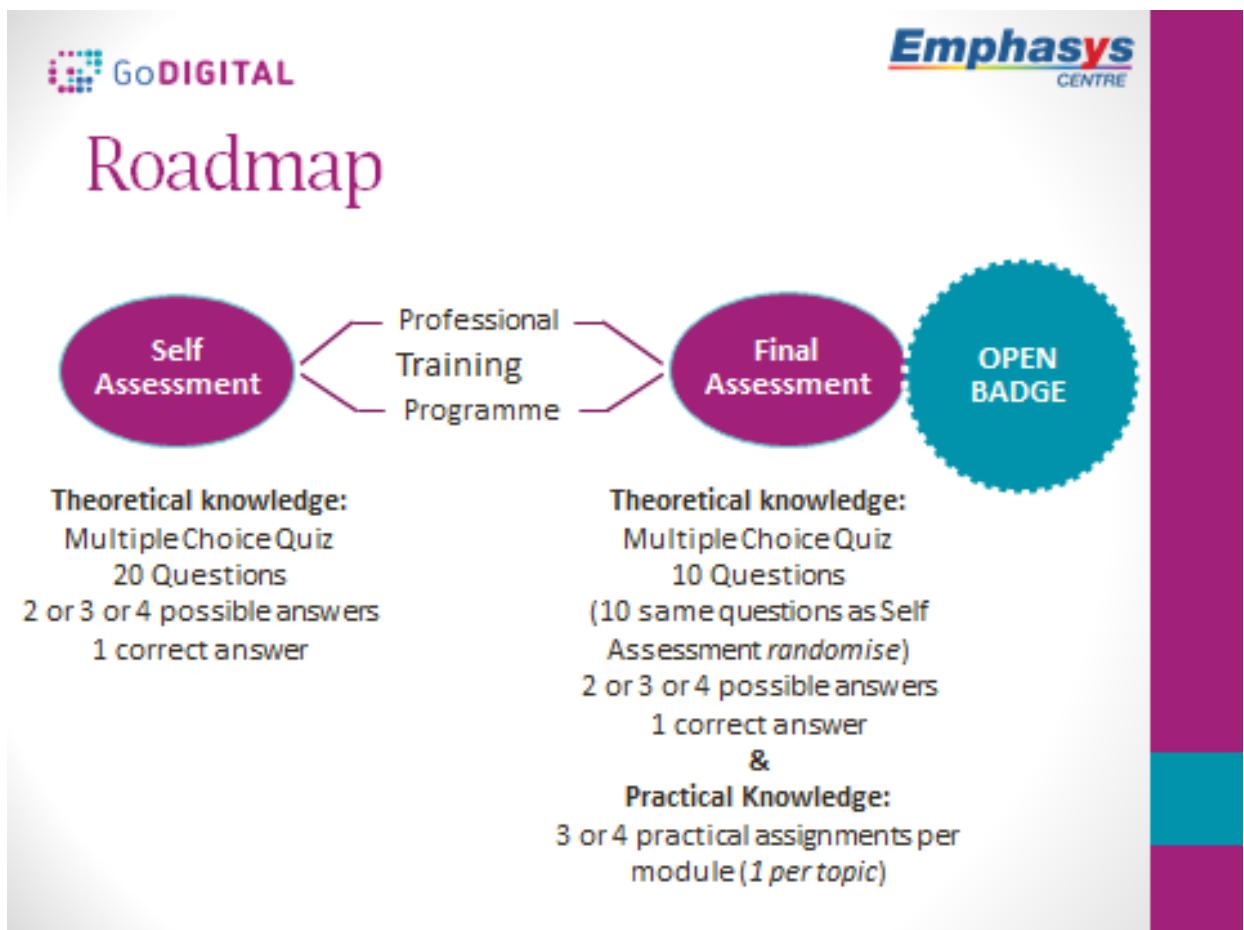
Question 5: The process of evaluation consists of:

Option 1	Assessment only
Option 2	Checking the knowledge only in order to make students pass the class
Option 3	Checking knowledge, assessment, and reflection on the process.
Correct answer	Checking knowledge, assessment, and reflection on the process.

5.2 Assessment Validation – final assessment procedure

After the self-assessment procedure and the implementation of the GODIGITAL Programme (implementation) , a final assessment procedure designed for the primary school teachers to evaluate their digital skills after the pilot-testing (implementation). Each module consists of 10 multiple choice questions taken from the self-assessment quiz with 3 possible answers and 1 answer is correct.

Users will have 2 attempts to pass the final assessment tests. After they successfully pass the tests will earn the appropriate Badges (see below) for each module OR the overall (super-badge) after receiving all the badges.



Module 1 – Internet

Topic 1: Internet Safety

Question 1: In order to avoid “bad” sites someone has to ...

Option 1	use internet filters
Option 2	stop using web browsers
Option 3	know the exact URL of each web page he /she wants to visit
Correct answer	use internet filters

Question 2: Choose the option that is not malicious software

Option 1	virus
Option 2	rogue security software
Option 3	Trojan scanner online software
Correct answer	Trojan scanner online software

Question 3: Secure your Internet accounts ...

Option 1	by using the same password for all of them (easy to remember)
Option 2	by writing down the passwords on your mobile phone (always close to you)
Option 3	by using different and hard to remember passwords for each one of them
Correct answer	by using different and hard to remember passwords for each one of them

Topic 2: Internet and Information Searching

Question 1: Which one is not a web search engine:

Option 1	Google.com
Option 2	Duckduckgo.com
Option 3	Mozilla Firefox
Correct answer	Mozilla Firefox

Question 2: What is the most appropriate keywords to search information about the Minoan Palace of Knossos:

Option 1	Minoan Palace
Option 2	Knossos Minoan Palace
Option 3	Knossos
Correct answer	Knossos Minoan Palace

Question 3: With the SafeSearch setting in Google.com search engine:

Option 1	the search results are filtered so that to exclude offensive or sexually explicit results
Option 2	the search results are inspected for viruses
Option 3	instructions are presented of how to make safe searches
Correct answer	the search results are filtered so that to exclude offensive or sexually explicit results

Topic 3: Web 2.0 tools

Question 1: A Web 2.0 tool is a web page:

Option 1	simply presenting information to the user
Option 2	created in 2000
Option 3	allows users to create their own content in it
Correct answer	allows users to create their own content in it

Topic 4: Info management-Google Drive

Question 1: The creator/manager of a Google Document can invite collaborators to:

Option 1	Edit or View only
Option 2	Edit, View or Comment
Option 3	Edit only
Correct answer	Edit, View or Comment

Question 2: For the creation of the content of a Google Form we can use:

Option 1	Plain text
Option 2	Videos or/and photos/images
Option 3	All the above
Correct answer	All the above

Question 3: What is/are the more important advantage(s) of Google Drive' use in education?

Option 1	The opportunities given to get to know the application
Option 2	The opportunities given for collaborative work
Option 3	The opportunities given to get acquainted with ICT
Correct answer	The opportunities given for collaborative work

Module 2 – LMS

Topic 1: Creating a course in Moodle

Question 1: What can be changed operating with the Preferences in the account setting?

Option 1	Course Title
Option 2	Course Format
Option 3	Whether receiving notification through e-mail or pop up
Correct answer	Whether receiving notification through e-mail or pop up

Question 2: How can I get rid of the Administration block from course webpage?

Option 1	Clicking on gear icon and selecting Delete block
Option 2	Dragging the Administration block in the trash bin
Option 3	Administration block cannot be deleted because it is too important
Correct answer	Administration block cannot be deleted because it is too important

Question 3: How can I provide students with learning material in a Moodle Topic?

Option 1	Attaching a video
Option 2	Making available course gradebook
Option 3	All above options
Correct answer	Attaching a video

Topic 2: Course Resources

Question 1: What is a book?

Option 1	A link to a book online
Option 2	A collection of pages built by the teacher

Option 3	A reference in a bibliography section of Moodle
Correct answer	A collection of pages built by the teacher

Question 2: What is a Folder in moodle?

Option 1	A collection of PDFs
Option 2	A link to a folder of teacher's pc
Option 3	A resource to keep course page organized and easier to navigate
Correct answer	A resource to keep course page organized and easier to navigate

Question 3: Resources and activities are...?

Option 1	Course page components represented by links leading to a variety of different tools like links, pages, videos etc.
Option 2	The way Moodle calls PDFs
Option 3	The same thing
Correct answer	Course page components represented by links leading to a variety of different tools like links, pages, videos etc.

Topic 3: Web 2.0 tools
Question 1: A question ...

Option 1	can be re-used in different quizzes
Option 2	are kept in the Question bank
Option 3	is a mandatory to be allowed to pass to the next lesson
Correct answer	are kept in the Question bank

Topic 4: Managing Course Participants
Question 1: If a teacher cannot cancel a student from his classroom it means that ...

Option 1	That student was pre-loaded by Administrator
Option 2	Student has not yet left the course

Option 3	He can never cancel students unless he is also an Administrator
Correct answer	That student was pre-loaded by Administrator
Question 2: communicating through forums or through messages is different because...	
Option 1	Messages cannot be sent to the whole classroom
Option 2	Messages cannot be sent to a selected group of students
Option 3	Forums are a global announcement for all the classroom
Correct answer	Forums are a global announcement for all the classroom
Question 3: A gradebook is...?	
Option 1	A book where grades of assignments have to be copied manually by the teacher to keep track of students' advances
Option 2	A way for the teacher to see all the submissions to an assignment
Option 3	A place where students can grade the quality of course
Correct answer	A way for the teacher to see all the submissions to an assignment

Module 3 – Web Design

Topic 1: Fundamentals of the Web

Question 1: What is the responsive web design? Select the true statements.

Option 1	It is an approach which suggests that design and development should respond to the user's behavior and environmental conditions such as screen size, resolution, platform and orientation (portrait or landscape).
Option 2	It gives us much more possibilities for positioning elements on the

	web page.
Option 3	It began to offer to host users websites on servers of these services, without the client needing to own the necessary equipment required to operate the website.
Correct Answer 1	It is an approach which suggests that design and development should respond to the user's behavior and environmental conditions such as screen size, resolution, platform and orientation (portrait or landscape).
Question 2: . To create the interactivity on the web page, we should use ... Select the true statements.	
Option 1	JavaScript language (JS)
Option 2	Flash technologies
Option 3	Each chosen between above mentioned
Correct answer 3	Each chosen between above mentioned
Topic 2: Website Planning, functionalities and main aspects of the frequently used systems	
Question 1: What is done in the method called scenarios and characters? Select the true statements.	
Option 1	Finding a detailed answer to the question: „Why does this website need to exist?”
Option 2	The user can easily jump to any of the main pages with a single click with the navigation bar on every page.
Option 3	Considering possible scenarios and characters, you should define the navigation design.
Correct answer 3	Considering possible scenarios and characters, you should define the navigation design.

Question 4: What are Meta keywords? Select the true statements.

Option 1	The most important words in the content
Option 2	The tags used for definition of thee keywords related with the content of the webpage.
Option 3	The words defining understanding of the news
Correct answer 2	The tags used for definition of thee keywords related with the content of the webpage.

Topic 3: Layout, Typography and Formatting (Graphics, Color, Transparency)

Question 1: What is optimizing of the graphics? Select the true statements.

Option 1	During this process, there is consideration which proportions of the pixel (width to height ratio) will be the most appropriate and crop the image to fixed dimensions.
Option 2	The target of it is to reduce the file size of the image for faster downloading, without compromising the quality of the picture.
Option 3	Downloading several smaller packets of information on the web.
Correct answer 2	The target of it is to reduce the file size of the image for faster downloading, without compromising the quality of the picture.

Question 3: What is Unsharp Mask feature? Select the true statements.

Option 1	Sharpens the image based on levels of contrast while keeping the areas that don't have contrasting pixels smooth
Option 2	It adjusts the file size and quality of your images.
Option 3	It simulates the transparency effect in JPEG format.
Correct answer 1	Sharpens the image based on levels of contrast while keeping the

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Question 5: What are pixels? Select the true statements.

Option 1	The set of triangles that make up a computer image
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Question 3: What is a web cookie? Select the true statements.

Option 1	It is a technology invented by the Google to place your company on Google Maps.
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Option 3	It is a virtualization environment.
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Question 5: What is the role of "cookies" in the website? Select the true statements.

Option 1	They can be used as the game
Option 2	They are necessary to design of the web
Option 3	Small text files stored in a web user's browser directory or data folder, useful for on visitors' browsers to retain login credentials, identify

	customers, and provide a customized shopping experience .
Correct answer 3	Small text files stored in a web user's browser directory or data folder, useful for visitors' browsers to retain login credentials, identify customers, and provide a customized shopping experience .
Question 1: What should you do to maximize how often your customers see your business in local search results? Select the true statements.	
Option 1	Enter complete data and verify my location.
Option 2	Choose the level of the web browser.
Option 3	Identify an user via their device.
Correct answer 1	Enter complete data and verify my location.

Module 4 – Hardware

Topic 1: Hardware	
Question 1: Which two are the parts of external hardware?	
Option 1	Motherboard and RAM
Option 2	Hard Drive and printer
Option 3	Keyboard and mouse
Correct answer	Keyboard and mouse
Question 2: If your internet is very slow, the most likely problem is in?	
Option 1	Internet connection
Option 2	Router

Option 3	Weather
Correct answer	Internet connection
Topic 2: Interactive Whiteboard	
Question 1: What is an interactive whiteboard?	
Option 1	An interactive whiteboard, also known as a smart board, is an interactive display in the format of a whiteboard that reacts to user input either directly by fingers or through other devices.
Option 2	It is a general term for the various kinds of programs used to operate computers and related devices.
Option 3	It describes the physical aspects of computers and related devices.
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Option 3	To ensure your touch is registered accurately with the touch surface
Correct answer	To ensure your touch is registered accurately with the touch surface
Question 3: How the IWB should be placed in the classroom?	
Option 1	The board should be placed in a bright, sunny room. The teacher should be able to reach the top of the board and the pupils and least the bottom.

	Teacher should be able to stand from the right side and kids from the left side of the board.
Option 2	The board should be positioned on an empty wall, away from sun and glare from the windows, somewhere where the class can see it easily and users can stand from both sides. The teacher should be able to reach the top of the board and kids should be able to reach at least the half.
Option 3	It is advised, that the board should be placed on a decorated wall in order to invoke interest of kids.
Correct answer	The board should be positioned away from sun and glare from the windows, somewhere where the class can see it easily and users can stand from both sides. The teacher should be able to reach the top of the board and kids should be able to reach at least the half.

Topic 3: Interaction with the Interactive WhiteBoard

Question 1: What does spotlight/searchlight tool stand for?

Option 1	It is a tool for searching on the Internet.
Option 2	It allows teacher or student to explore individual parts or aspects of the screen. You can use the tool during a presentation to draw attention to an area of a screen.
Option 3	This tool helps teachers to create a presentation.
Correct answer	It allows teacher or student to explore individual parts or aspects of the screen. You can use the tool during a presentation to draw attention to an area of a screen.

Question 2: What are pens and highlighters?

Option 1	Their main purpose is to apply colour or patterns to a document. The objects tool can be used for drawing or hiding other information. Both of these features have the option to add animation to it.
Option 2	These tools are used to write and draw on the IWB. They can also be used to take a snapshot of the screen, highlight a specific area by creating a spotlight around it or use a magnifier to enhance a portion of the screen.
Option 3	These are a large bank of ready-made images, multimedia and subject specific tools that can be easily incorporated into a lesson or presentation.
Correct answer	These tools are used to write and draw on the IWB. They can also be used to take a snapshot of the screen, highlight a specific area by creating a spotlight around it or use a magnifier to enhance a portion of the screen.

Topic 4: Creating lessons using Interactive Whiteboard
Question 1: Which are the main benefits of using IWB in the classroom?

Option 1	Makes structuring lessons easier, Learning process is becoming more enjoyable, Limits interaction between teacher and student, Allows review and revision of lessons,
Option 2	Makes structuring lessons easier, Learning process is becoming more enjoyable, Interaction between teacher and student, Allows review and revision of lessons, Appropriate for students with various disabilities
Option 3	Makes structuring lessons easier, Enlarge paperwork, Learning process is becoming more enjoyable, Interaction between teacher and student, Allows review and revision of lessons, Appropriate for students with various disabilities
Correct answer	Makes structuring lessons easier, Learning process is becoming more enjoyable, Interaction between teacher and student, Allows review and

	revision of lessons, Appropriate for students with various disabilities
Questions 2: Which from the activities you can do on IWB?	
Option 1	Creating games, record lessons, using Internet
Option 2	Saving lessons, create presentations, providing feedback
Option 3	All of them
Correct answer	All of them
Question 3: Which learning style can interactive whiteboard support?	
Option 1	Visual learners only
Option 2	Auditory learners, Kinaesthetic learners
Option 3	Visual, Auditory, Kinaesthetic learners
Correct answer	Visual, Auditory, Kinaesthetic learners

Module 5 – Tools and Applications

Topic 1: “Content curation” as a method of using ICT tools and web applications in education
Question 1: What is the main role of the teacher in contemporary information society?

Option 1	Information provider.
Option 2	Information checker.
Option 3	“Curator” that helps to find the right information from variety of data.
Correct answer	“Curator” that helps to find the right information from variety of data

Question 2: The main goal of use ICT in school is:

Option 1	To provide fast and accurate information
Option 2	To make the learning process more attractive
Option 3	All of the above are correct
Correct answer	All of the above are correct

Question 3: The content curation method is derived from:

Option 1	Genetical engineering
Option 2	Education itself
Option 3	Art and media
Correct answer	Art and media

Topic 2: Tools and applications that support development of media and creative competences
Question 4: Which free tool will be the most suitable to create the tableau made of class photographs?

Option 1	Microsoft Word
----------	----------------

Option 2	Prezi
Option 3	GIMP
Correct answer	GIMP

Question 5: The method that can be very attractive for developing intra- and interpersonal communication with using Storybird application is:

Option 1	Storytelling
Option 2	Language acquisition
Option 3	Fast reading
Correct answer	Storytelling

Topic 3: Tools and applications facilitating group and project work of pupils

Question 6: Which of these tools can be the best solution for proper communication inside the project group of pupils?

Option 1	Gimp.
Option 2	Trello.
Option 3	Quizizz.
Correct answer	Trello.

Topic 4: Tools and applications used in educational analytical and evaluation methods

Question 7: Mindmeister or Mindomo are tools mainly for:

Option 1	Creating mind maps

Option 2	Creating educational atmosphere in the group
Option 3	Visualising dreams from the students' minds
Correct answer	Creating mind maps

Question 8: The most important feature of using ICT tools in the process of evaluation is:

Option 1	It can help teacher in gathering information about pupils
Option 2	It minimizes the stress usually associated with tests, exams, etc.
Option 3	It reduces unjust assessment
Correct answer	It minimizes the stress usually associated with tests, exams, etc.

Question 9: What tool can be used if the teacher wants to create funny and non-stressful test?

Option 1	Adobe Acrobat
Option 2	Prezi
Option 3	Quizizz
Correct answer	Quizizz

Question 10: Creating mind maps is important for:

Option 1	Analyzing gathered data
Option 2	Visualizing the data
Option 3	All of the mentioned
Correct answer	All of the mentioned

5.3 Assessment Validation – Additional Exercises

Module 1 – Internet

Topic 1: Quiz with matching

Match the words/phrases of the left list to those of the right list

- | | |
|-------------------------------|------------------------------|
| 1. pharming | a. malicious software |
| 2. internet filter | b. internet hazard |
| 3. computer worm | c. step for malware removal |
| 4. perform daily scan | d. anti-virus technique |
| 5. scan computer in safe mode | e. internet account security |
| 6. strong password | f. avoids questionable sites |

Correct answers

1-b, 2-f, 3-a, 4-d, 5-c, 6-e

Topic 2: Quiz with drag & drop only text

Put the words in the right position

To search information on the Web we need a⁽¹⁾ like⁽²⁾ and Google Chrome in order to visit the web page of a web⁽³⁾⁽⁴⁾, DuckDuckGo.com and Bing.com are some examples of web search engines. The web page of a web search engine consists of a form in which the user types the⁽⁵⁾ he/she wants to search. Pressing the “Search” button the search engine searches in its⁽⁶⁾ the given keywords and presents the⁽⁷⁾ to the user. The search results are ranked based on their⁽⁸⁾ to the search criteria.

For advanced searches logical operators can be used.⁽⁹⁾ logical operator between two keywords returns search results that contain both keywords.⁽¹⁰⁾ logical operator between two keywords returns search results that contain at least one of these keywords. To search for a specific phrase we use⁽¹¹⁾.

By activating the⁽¹²⁾ setting of Google.com, the search results are filtered so that to exclude results with offensive or sexually explicit content.

Correct answers

browser⁽¹⁾, Mozilla Firefox⁽²⁾, search engine⁽³⁾, Google.com⁽⁴⁾, keywords⁽⁵⁾, database⁽⁶⁾, search results⁽⁷⁾, relevancy⁽⁸⁾, AND⁽⁹⁾, OR⁽¹⁰⁾, double quotes⁽¹¹⁾, SafeSearch⁽¹²⁾

Topic 4: Quiz with drag & drop only text

Put the words in the right position

Google Drive is a free online1..... space, suitable for information2..... Through this, documents can be sent to or shared with other3..... One more important feature is the creation of4..... documents, spreadsheets, presentations, tests and5..... where people can work with other users6..... or synchronously. Is a7..... example

of a digital universal8..... that offers alternatives for9..... and teaching use in collaborative10.....

Correct answers

1- storage; 2 - management; 3 - users; 4 - shared; 5 - questionnaire; 6 - asynchronously; 7 - representative; 8 - tool; 9 - pedagogica; 10 - learning

Module 2 – LMS

Topic 1: Creating a course in Moodle

Exercise 1. Complete the sentences using the correct words from the list.

A learning management system (____) is a software ____ for the administration, documentation, tracking, reporting and delivery of ____ courses or ____ programs or learning and development programs. The learning management system concept emerged directly from ____.

Correct answer

Application, e-Learning, educational, LMS, training

Correct Sentence

A learning management system (LMS) is a software application for the administration, documentation, tracking, reporting and delivery of educational courses or training programs or learning and development programs. The learning management system concept emerged directly from e-Learning

Exercise 2. Complete the sentences using the correct words from the list.

Moodle is a ___, online ___ enabling educators to create their own private website filled with dynamic ___ that extend learning, anytime, anywhere. Whether you're a ___, student or administrator, Moodle can meet your needs. Moodle's extremely ___ core comes with many standard features

Correct answer

Learning Management system, courses, free, customisable, teacher

Correct Sentence

Moodle is a free, online Learning Management system enabling educators to create their own private website filled with dynamic courses that extend learning, anytime, anywhere. Whether you're a teacher, student or administrator, Moodle can meet your needs. Moodle's extremely customisable core comes with many standard features.

Topic 2: Course Resources

Exercise 1. Complete the sentences using the correct words from the list.

A resource is an item that a ____ can use to support____, such as a ____ or link. Moodle supports a range of ____ types which teachers can add to their courses. In edit mode, a teacher can add resources via the ____ link.

Correct answer

Resource, teacher, 'Add an activity or resource', file, learning

Correct Sentence

A resource is an item that a teacher can use to support learning, such as a file or link. Moodle supports a range of resource types which teachers can add to their courses. In edit mode, a teacher can add resources via the 'Add an activity or resource' link.

Exercise 2. Complete the sentences using the correct words from the list.

A label serves as a ____ on a Moodle course page. It can be used to add ____, images, ____ or ____ code in between other resources in the different sections. Text, images and URLs can be ____ into labels.

Correct answer

HTML, spacer, multimedia, text, embedded

Correct Sentence

A label serves as a spacer on a Moodle course page. It can be used to add text, images, multimedia or HTML code in between other resources in the different sections. Text, images and URLs can be embedded into labels.

Topic 3: Course Activities

Exercise 1. Complete the sentences using the correct words from the list.

In Moodle terminology, an Activity, such as ____, properly means something ____ can contribute to directly, and is often contrasted to a ____ such as a ____, which is presented by the ____ to them

Correct answer

Resource, students, 'Forums or Quizzes', 'File or Page', teacher

Correct Sentence

In Moodle terminology, an Activity, such as Forums or Quizzes, properly means something students can contribute to directly, and is often contrasted to a Resource such as a File or Page, which is presented by the teacher to them

Exercise 2. Complete the sentences using the correct words from the list.

The Choice activity allows teachers to ask a ____ and set up ____ which ____ can click to make a selection from a number of _____. They can choose one or more ____ and they can update their selection if you allow them

Correct answer

Option, question, learners, 'possible responses', 'radio buttons'

Correct Sentence

The Choice activity allows teachers to ask a question and set up radio buttons which learners can click to make a selection from a number of possible responses. They can choose one or more option and they can update their selection if you allow them

Exercise 3. Complete the sentences using the correct words from the list.

The forum module is an ____ where students and teachers can exchange ideas by posting _____. There are ____ basic forum types. Forum posts can be ____ by the teacher or other students. A forum can contribute significantly to successful ____ and community building in an online environment.

Correct answer

four, activity, graded, comments, communication

Correct Sentence

The forum module is an activity where students and teachers can exchange ideas by posting comments. There are four basic forum types. Forum posts can be graded by the teacher or other students. A forum can contribute significantly to successful communication and community building in an online environment.

Exercise 1. Complete the sentences using the correct words from the list.

Grades can be organised into grade _____. A grade category has its own ____ grade which is ____ from its grade items

Correct answer

Aggregated, categories, calculated

Correct Sentence

Grades can be organised into grade categories. A grade category has its own aggregated grade which is calculated from its grade items.

Exercise 2. Complete the sentences using the correct words from the list.

The Grader ____ is the primary page in Moodle's ____ to view and edit student ____ for the entire class. When you add a graded activity to your ____, a ____ is added to the report

Correct answer

Grades, report, course, gradebook, column

Correct Sentence

The Grader Report is the primary page in Moodle's gradebook to view and edit student grades for the entire class. When you add a graded activity to your course, a column is added to the report

Exercise 3. Complete the sentences using the correct words from the list.

The groups feature allows an ____ to assign ____ (and ____) to one or more ____ for the entire course or for individual ____

Correct answer

Students, groups, instructor, activities, co-instructors

Correct Sentence

The groups feature allows an instructor to assign students (and co-instructors) to one or more groups for the entire course or for individual activities

Module 3 – Web Design**Fundamentals of the Web****Exercise 1. Complete the sentences using the correct words from the list.**

A ____ site provides a sense of stability, professionalism and safety. ____ on this web page should be ____ to follow, because older users probably have ____ technical skills. On the other hand, an ____ web page with funny videos should contain links to ____, due to you can expect, that ____ audience will be your target group. The appearance ____ of ____ this ____ page ____ should be trendy and ____.

bank, navigation, easy, less, entertainment, social networking service, teenage,

attractive

Exercise 2. Complete the sentences using the correct words from the list.

The ___ file is a list of directives (rules) determining how the content of the selected element should be displayed by the web browser.

To create the interactivity on the web page, we should use ___ language.

Generally, the structure and content of the web page is contained with ___.

CSS, JavaScript, HTML

Website Planning, functionalities and main aspects of the frequently used systems**Exercise 1. Complete the sentences using the correct words from the list.**

One of the techniques of planning and managing used in website design is the ___.

In the case of print design somebody is only the ___ recipient of the content, but in the case of web design, somebody is the ___ user of them.

The ___ is the entire sum of the user's interactions with a website.

However, in all cases, the designer's goal is to create sites that serve the needs of the users. This approach can be called the ___.

Information architecture – providing ___ navigation paths for the user which helping them to get from one requested page to another.

content mapping, passive, active, user experience, user-centered design, optimal,

Exercise 2. Complete the sentences using the correct words from the list.

There is a wide navigation structure in which the main pages are listed ___.

An alternative method for organizing content on the website is ___ navigation, which simplifies the main navigation and then groups related pages into categories.

It is worth ___, due to the home page may not be as crucial as it once in the past.

___ is the process of evaluating how users interact with a website.

horizontally, deep, rethinking website navigation, usability testing

Layout, Typography and Formatting (Graphics, Color, Transparency)**Exercise 1. Complete the sentences using the correct words from the list.**

The ___ was originally designed to present data in a logical format, using rows, columns, and cells.

A _____ layout is useful for the designer due to it offers a way to reliably position the various layout elements (such as headers, sidebars, and footers).

A correctly designed _____ layout can automatically adjust to fit the user's browser window.

_____ are used commonly in standards-based design due to they can easily be updated and modified, and because they are text-based (not pictures), which improves accessibility in devices such as screen readers and can even help a website's search engine rankings.

HTML table, fixed-width, flexible, CSS navigation menus

Exercise 2. Complete the sentences using the correct words from the list.

_____ should never be an arbitrary action.

In reality, _____ is the weakest, hardest to read alignment and should be used very selectively.

The target of _____ is to reduce the file size of the image for faster downloading, without compromising the quality of the picture.

When saving a picture that you will use on the web, you need to consider two factors:

the size and _____ of the picture file.

font choice, center alignment, optimization, quality

Browser Compatibility and Webpage Responsibility and Security**Exercise 1. Complete the sentences using the correct words from the list.**

A web browser is an application that _____ HTML, CSS, and JavaScript files according _____ to a set of rules built into the program.

Before you start testing the browsers, you should check the level of _____.

If you work on MacOS you can install _____ and have virtual Windows OS on it.

To better testing process, you should use software such as _____. This application allows you to preview your websites on many different web browsers.

Renders, browser use, Apple Bootcamp, AdobeBrowserLab

Exercise 2. Complete the sentences using the correct words from the list.

Nowadays you should design _____ web pages which are optimized for mobile

devices.

First, you need to consider screen orientation: for computer monitors, the default orientation is _____; for mobile phones, it's _____.

In some cases, media types don't work. Then you can use _____ in CSS3 to identify devices that are visiting your website.

Search engines work better if web page content is organized and _____ because it is easier for search engines to evaluate the content and relevance of content on the page.

Responsive, horizontal, vertical, media queries, well-labeled

Module 4 – Hardware

Topic 1: Hardware

1. Complete the sentences by using the correct words from the list

Hardware is the collection of all the _____ parts that you can see and touch. There are external and internal parts of hardware. The _____ hardware parts are called components, and _____ hardware is called peripherals.

Correct answers

Physical, external, internal

Correct sentence

Hardware is the collection of all the physical parts that you can see and touch. There are internal and external parts of hardware. The internal hardware parts are called components, and external hardware are called peripherals.

2. Is it external or internal device?

Keyboard

Motherboard

Monitor

RAM

Hard drive

Mouse

Correct answers

external, internal, external, internal, internal, external

3. Match the part with the definition

Hard drive, Monitor, Projector, Processor, Motherboard

- This is the internal part of the computer responsible for computing and calculating information. Often called the CPU or the central processing unit.
- Place where the system stores all programs installed on the computer and all data entered into it. Vary in capacity and the speed at which they retrieve information.
- Screen that makes it possible to see data or programs being executed on a computer. Resolution refers to the clarity and sharpness of the images it displays.
- Primary circuit board of a computer. Supplies power to the central processing unit and every other hardware component installed on a computer.
- Optical device that projects an image (or moving images) onto a surface. Divided into three categories, real time, still images and moving images.

Correct answers

Processor, Hard drive, Monitor, Motherboard, Projector.

Topic 2: Interactive Whiteboard

4. Quiz with true-false answers:

1. Every interactive whiteboards system requires two basic components: computer and project.
 - a) True
 - b) False
2. The interactive whiteboard was originally envisioned by David Martin and Nancy Knowlton in 1997.
 - a) True
 - b) False
3. Backgrounds and objects - The purpose of the background option is to apply colour or patterns to a document. The objects tool can be used for drawing or hiding other information. Both of these features have the option to add animation to it.
 - a) True
 - b) False
4. Every IWB comes with their own software which provides characteristics specifically made to maximize interaction opportunities. Depending on your needs, you can upgrade it to a version that you like.
 - a) True
 - b) False

Correct answers

False, False, True, True

5. Quiz with answers from a combo box:

- a) Pages
- b) Pens & highlighters
- c) Interactive activities
- d) Backgrounds & objects
- e) Digital galleries
- f) Page recording capabilities

	1	This is a large bank of ready-made images, multimedia and subject specific tools that can be easily incorporated into a lesson or presentation.
		This includes a series of tools, games and activities, most of which are animated and powered by Java.
	2	The main function of this is to record the activity taking place on the IWB, which can also be saved and replayed for immediate or later review.
	3	These tools are used to write and draw on the IWB. They can also be used to take a snapshot of the screen, highlight a specific area by creating a spotlight around it or use a magnifier to enhance a portion of the screen.
	4	The purpose of the background option is to apply colour or patterns to a document. The objects tool can be used for drawing or hiding other information. Both of these features have the option to add animation to it.
	5	This application functions as a design work area that can be created and modified before or during the lesson or presentation. Each page can include text, images, videos, website links and anything drawn directly on the IWB. Afterwards, all of the work done can be saved for reference and future use.

Correct answers

1E, 2F, 3B, 4D, 5A

6. Complete the sentence by using the correct words from the list

Special pen (stylus), board, digital projector

An Interactive Whiteboard (IWB) is a touch-sensitive board that needs to be connected to computer and _____, so in this way images may be projected on the interactive whiteboard surface. The computer connected to the interactive whiteboard can be controlled by touching the _____ directly with fingers or by using _____.

Correct answer

digital projector, board, special pen (stylus)

Correct sentence

An Interactive Whiteboard (IWB) is a touch-sensitive board that needs to be connected to computer and digital projector, so in this way images may be projected on the interactive whiteboard surface. The computer connected to the interactive whiteboard can be controlled by touching the board directly with fingers or by using a special pen (stylus).

7. Choose what type of learner is characteristic for the statements.

Visual, Auditory, Kinesthetic

- 1 These learners benefit from graphics, charts, written text or pictures.
- 2 These learners learn through exercises involving touch, movement and space on an interactive whiteboard.
- 3 These learners tend to absorb information in a more efficient manner through sounds, music, discussions, teachings, etc.

Correct answer:

Visual, Kinesthetic, Auditory

Module 5 Tools & Applications

Topic 1: “Content curation” as a method of using ICT tools and web applications in education

1 Finding the alternatives

Try to find the alternatives for the applications described in the module.

TIP (How to do it?)

Try to do a set of keywords beginning with the name of the application followed with the word “alternative”, and main functionality of the app, then add the advantages and antonyms of the disadvantages. E.g.:

Lightworks alternative, movie editing, intuitive, Polish language

Then input these words into Google search and spend some time to get familiar with the results.

Topic 2: Tools and applications that support development of media and creative competences

1 Advantages and disadvantages analysis

Get familiar with some programs that you find the most suitable for you and try to prepare your own list of advantages and disadvantages.

TIPS

You can use the following indicators as a criteria:

- The language.
- Charges for using.
- On-line/off-line usage.
- Time spend for getting familiar with the application.
- Usefulness for your topic.
- Easiness to use it by your pupils.
- Visual attractiveness.

Topic 3: Tools and applications facilitating group and project work of pupils**3. Lesson plans**

Try to make a lesson plan based on PBL method with use at least three of tools.

TIP

Take into consideration:

- The topic of the problem.
- The type of competences that you want to develop in your pupils.
- The time you have for carrying out the project.
- The abilities of you.
- The ability of your pupils.
- The resources you have (equipment, money, time).
- The abilities to reach resources by your pupils (computer or mobile access)
- The groups that you can create in your class. (Remember, that if you have various children, with differentiated capabilities and competences, you should put an attention to put the right pupils in the right group: in each group it is good to have: one leader, one informatician, one creator, etc.).

6. Open Badges Handbook

Open Badges are a digital representation of skills, learning outcomes, achievements or experience such as:

- Hard skills: knowledge, competences, etc.
- Soft skills: collaboration, communication, etc.
- Participation and community involvement
- Official certification
- Authorization

Open Badge is an innovative system used in the USA and many EU countries for the validation and recognition of learning using the OB technology offered as an open educational resource. It is a technology which promotes open access and participation of all stakeholders involved in badges process, while allowing the creation of synergies between the learners-earners (i.e. young people, students), the issuers (i.e. VET Schools, stakeholders, enterprises, NGOs including the VET trainers/ Volunteers as facilitators) and the badge consumers (i.e. employers, formal education, public authorities, official body). This will lead to the endorsement process leading to a transparent, transferable, valid and credible validation of a body of skills and knowledge related to a set of competences, such as coding skills for VET students and teachers.

Open Badges is a very inclusive solution: it enables anyone to get actively involved in designing, testing, implementing and promoting the learning outcomes and achievements. This is what major European documents on Recognition are calling for, as well as Erasmus+ in emphasizing the “transparency and recognition of skills and qualifications to facilitate learning, employability and labour mobility: priority will be given to actions promoting permeability across education, training and youth fields as well as the simplification and rationalisation of tools for transparency, validation and recognition of learning outcomes. This includes promoting innovative solutions for the recognition and validation of competences acquired through informal, non-formal, digital and open learning” (Horizontal Priorities).

Open Badge is a visual verified evidence of achievement. It has visual part (image) and metadata, which is encoded in the image. Each digital badge must comply with the required standard data fields, such as: issuer, date of issue, description of the badge, link to assessment criteria, link to evidence of what badge owner is claiming, link to specific competence framework and tags, which puts an Open Badge in relation to specific context.

The following are some of the benefits of Open Badges:

- Badges can demonstrate a wider range of skills and achievements of a learner acquired through formal, non-formal and informal learning methods and activities.

- Badges are portable and verifiable digital objects. All this information may be packaged within a badge image file that can be displayed via online CVs and social networks.
- Each Badge includes the description of the achievement: i.e., it describes the particular path a learner undertook for his or her achievement, accompanied by the evidence to support the badge award.
- Each Badge includes information about the earner's identity, a link to information about the issuer and a link to a description of what a badge represents.
- Badges can be used to unlock learning and career pathways. They can be used to support individuals to achieve learning goals, to provide routes into employment; and to nurture and progress talent within organizations.
- Badges can represent personal attributes that matter to employers (such as soft skills)
- Badges can be used in professional context. Thousands of organizations, including non-profit organizations, major employers or educational institutions, issue badges in accordance with the Open Badges Specification.

6.1. KEY ELEMENTS

Issuer

The issuer defines a competence that could be acquired by a user, designs the learning material for it and assesses the users with regards to the acquisition of the competence. The issuer then creates a relevant badge and makes it available for earning by any user. For each badge, the issuer should make available details of the criteria that an earner must meet in order to be awarded the specific badge. The reviewer of an assessment compares the evidence provided by the earner against the specific badge criteria.

Any individual or organization can create an Issuer profile and begin defining and issuing Open Badges. This is being done by a diverse range of organizations and communities, including:

- Schools and universities
- Employers
- Community and nonprofit organizations
- Government agencies (including NASA)
- Libraries and museums
- Event organizers and science fairs (Including Intel)
- Companies and groups focused on professional development (such as the GODIGITAL consortium)

An entity that can be described with a name, a description, a URL, an image, and an e-mail address is a possible candidate to become an issuer. Furthermore, it needs a technology platform that supports the Open Badges Specification in order to issue Open Badges.

Badge Issuing Platforms

Many companies have badge issuing platforms compliant with the Open Badges Specification. They provide a wide range of services which allow non-technical users to issue Open Badges credentials. The platforms used for issuing Open Badges offer a variety of custom services including online badge designers, badge discovery, issuing, assessment workflow, display, user profiles, social sharing and tools to integrate with existing learning systems. All Open Badges issuing platforms allow recipients to export their badges to other online options. This allows users to stack and share their badges earned on different platforms and to choose their own spaces to establish their identity on the web.

Earner

Open Badges help to recognize skills gained through a variety of experiences, regardless of the age or background of the learner. They allow earners to get awards for following their interests and passions, and to unlock opportunities in life and work by standing out from the crowd. Earners have to register on the organization's platform and can claim a badge when the pre-defined criteria have been met during the evaluation phase.

Evaluation

There are different options for the assessment process:

- Asynchronous assessment: learners seek out the assessment when it is convenient for them instead of being required to take an exam at a pre-determined time.
- Stealth assessment: assessment and awarding badges can happen automatically and provide immediate feedback.
- Portfolio assessment: work samples, projects and other artifacts the learner has produced can be used as evidence for claiming a badge.

Displayer

Open Badges are designed to be shared. By sharing them, individuals exhibit their achievements to others and turn them into a valuable currency to unlock new opportunities. Displayers can utilize the Displayer API for retrieving earner badges from the Mozilla hosted Backpack. Mozilla set up the first Backpack in 2011. Most issuing platforms provide users with the ability to connect and store their badges to this Backpack. When retrieving badges from the earner's Mozilla Backpack (using the email address account), the displayer will only be able to access those badges that the earner has chosen to be public.

Badges can also be shared:

- On blogs, websites, e-Portfolios, and professional networks
- In job applications
- On social media sites - Twitter, Google+, Facebook, LinkedIn
- In an e-mail signature

Badges are like commercial products that have to be endorsed by a certain celebrity or institution in order to be promoted in a wider sphere and to gain the support of the consumer. In this section, institutions from public and private sectors, which are endorsing open badges as a recognition tool and the importance of endorsing a badge within the ecosystem will be highlighted.

❖ **Governmental Institutions**

The Council of the European Union is one of the intergovernmental institutions which have expressed their support to the open badges as one of the nonconventional approaches to recognize someone's work. In a conclusion made by the Council and Representatives of the Government of the Member States released in November 23, 2016, it was stated that "To appeal to young people and to ensure greater impact on their lives, new settings where young people spend their time, such as modern city infrastructure and virtual space, as well as new approaches using innovative online and offline tools (such as gamification, GPS based activities, learning badges or design thinking), should be reflected upon and taken into account in the further development of education and training of youth workers." (Council of the European Union, 2016). This statement affirms that learning badges such as open badges are one of today's trends in recognizing learners' skills and knowledge acquired by training.

Within the EU, the Lithuanian National Commission for UNESCO together with the Lithuanian Association of Non-Formal Education recommend the use of open badges to other UNESCO affiliated schools in the country (Lithuanian National Commission for UNESCO, 2016).

Aside from these EU bodies, in 2013 the U.S. Department of Education's Office of Vocational and Adult Education (OVAE), funded a study which "explores the feasibility of developing and implementing a system of digital badges for adult learners and the implications for policy, practice, and the adult education delivery system" (Finkelstein, Knight, & Manning, 2013). In the US, the following institutions have a long tradition implementing the open badges system as a recognition tool:

- EDUCAUSE- a leading association in the field of information technology focusing on higher education.
- The Society for Science and the Public administers the Intel International Science and Engineering Fair (Intel ISEF), - the largest precollege science competition in the world.
- The American Association for State and Local History
- The Yale Center for Emotional Intelligence

These institutional endorsements from various governmental bodies show that open badges are a legitimate tool to be considered and one of the trends in the 21st century which should be further explored in the field of formal and non-formal education.

❖ Private Sector's Endorsement

Aside from Mozilla Foundation which started with the idea of open badges, various entities in the private sector have been using open badges. For instance, the American company Microsoft “developed a badge system for the Partners in Learning Network (PiLN) of educators and school leaders to promote technological competencies and relevant skills in today’s digital age.” (Chow, 2014). On its official website, the company explains why they are offering badges: “Your digital badge allows you to easily share the details of your skills in a way that is trusted and verifiable” (Microsoft, 2016). One of the well-known institutions which is using open badges is the National Aeronautics and Space Administration (NASA). In 2012, NASA together with Project Whitecard and the Wheeling Jesuit University collaborated to convince the California Academy of Science to implement Mozilla’s open badges system in “recognizing life’s achievements” (NASA, 2016). Aside from companies, formal education institutions have been also using open badges as a recognition tool. In Europe, some of these institutions include Beuth University of Applied Sciences in Berlin, Germany, Newcastle University in the United Kingdom and Universitat de les Illes Balears in Spain (Mozilla Foundation, 2016c).

Open Badges provide portable and verifiable information about digital skills and achievements. Students and teachers can unlock opportunities by sharing collections of badges representing desired skill sets in a dynamic, evidence-based way. Open Badges represent legitimate, authenticated achievements described within the badge and linked to the GODIGITAL project.

The main characteristics of the GODIGITAL Open Badges eco-system are:

- The GODIGITAL consortium has designed the framework, syllabus and teaching – learning material for the following modules (which are presented in IO1) namely:
 - ✓ Internet
 - ✓ LMS
 - ✓ Website Design
 - ✓ Hardware
 - ✓ Tools & Applications

- For each of the above modules, the GODIGITAL consortium has created the corresponding badges (Figure 1). There are 5 badges (one per module) and 1 overall Badge (GODIGITAL) for the completion of all modules. In order for someone to acquire the GODIGITAL Badge, they first need to complete all the modules. These badges are made available for earning via the e-platform, which has been designed specifically for the learning and assessment purposes of the MELDE project.
- Primary school teachers are invited to register in the platform and take the course(s) of the GODIGITAL project.
- The e-platform specifies to teachers the criteria of earning each of the badges shown below. These criteria will be elaborated in the following section.
- Primary school teachers have to provide evidence to meet the badge criteria in order to claim a specific badge. This process is automatized on the e-tool.
- The badges will be awarded automatically through the e-platform based on certain criteria, which are presented in the next section.
- The issuer (GODIGITAL Consortium) will provide the user with the opportunity (through the e-tool) to create an account in the Badge Backpack in order to display the earned badges there as well.

The GODIGITAL consortium plays a critical role in developing the ecosystem. Open Badges can support learners to achieve new collaborations, jobs, internships and richer connections between lifelong learners.



Figure 1: GODIGITAL Open Badges Tree Structure

Internet		
Main objective:		
<p>This module provides information, knowledge and experience on effective and safe internet use for educational purposes by familiarizing learners with information search, selection and management's tools and strategies, either on an individual or in a collaborative basis.</p>		
Issued by: Expert		
Learning Outcomes	Criteria	Evidence
<p>Summary of topics based on the main topics of Module 1 – Internet are:</p> <p>1.1 Security/safety on the net</p> <p>1.2 Info search on the net</p> <p>1.3 Web 2.0</p> <p>1.4 Info management</p>	<p>1 Take the Initial Self-assessment test</p> <p>2 Pass the Final assessment test with 85%</p>	<p>Pass the quiz</p>

LMS		
Main objective:		
<p>The main objective of this module is to instruct teachers on how to start, personalize, manage and use the Moodle platform from Teacher point of view in order to create online courses to students benefit.</p>		
Issued by: Expert		
Learning Outcomes	Criteria	Evidence
<p>Summary of topics based on the main topics of Module 2 – LMS are:</p> <p>2.1 Creating a course in Moodle</p> <p>2.2 Course Resources</p> <p>2.3 Course Activities</p> <p>2.4 Managing course participants</p>	<p>1 Take the Initial Self-assessment test</p> <p>2 Pass the Final assessment test with 85%</p>	<p>Pass the quiz</p>

Website Design		
Main objective:		
Issued by: Expert		
Learning Outcomes	Criteria	Evidence
<p>Summary of topics based on the main topics of Module 3 – Website Design are:</p> <p>3.1 Fundamentals of the Web</p> <p>3.2 Website Planning, functionalities and main aspects of the frequently used systems</p> <p>3.3 Layout, Typography and Formatting (Graphics, Color, Transparency)</p> <p>3.4 Browser Compatibility and Webpage Responsibility and Security</p>	<p>1 Take the Initial Self-assessment test</p> <p>2 Pass the Final assessment test with 85%</p>	<p>Pass the quiz</p>

Hardware		
Main objective:		
<p>The module 4 will provide primary school teachers with basic information about hardware, problem fixing and use of interactive whiteboard as a tool for encouraging and supporting classroom dialogue, while incorporating it in the classroom and daily curriculum.</p>		
Issued by: Expert		
Learning Outcomes	Criteria	Evidence
<p>Summary of topics based on the main topics of Module 4 – Hardware are:</p> <p>4.1 Hardware</p> <p>4.2 Introduction to Interactive WhiteBoard</p> <p>4.3 Basic Functionalities and Opportunities</p> <p>4.4 Use of Interactive WhiteBoard for educational purposes</p>	<p>1 Take the Initial Self-assessment test</p> <p>2 Pass the Final assessment test with 85%</p>	<p>Pass the quiz</p>

Tools/Applications		
Main objective: The main objective of the Module 5 is to prepare primary school teachers for searching, selection, valuation and practical use of ICT tools and internet applications in the teaching and learning process, adequately to the assumed learning outcomes and in accordance with the pupils' educational needs.		
Issued by: Expert		
Learning Outcomes	Criteria	Evidence
Summary of topics based on the main topics of Module 5 – Tools/Applications are: 5.1 “Content curation” as a method of using ICT tools and web applications in education 5.2 Tools and applications that support development of media and creative competences 5.3 Tools and applications facilitating group and project work of pupils 5.4 Tools and applications used in educational analytical and evaluation methods	1 Take the Initial Self-assessment test 2 Pass the Final assessment test with 85%	Pass the quiz

6.2. Overall Course Completion Badge (GODIGITAL Super Badge)

In terms of the awarding of the overall GODIGITAL Badge, the criterion set will be the successful completion of all the modules of the course. Successful completion of a module means earning the corresponding module badge, which can be achieved with an overall mark of 85% or over. Therefore, once users receive all module badges, the e-platform will automatically award them the final Overall Course Completion Badge (GODIGITAL Super Badge).



Open Badges are a digital representation of skills, learning outcomes, achievements or experience such as:

- Hard skills: knowledge, competences, etc.
- Soft skills: collaboration, communication, etc.
- Participation and community involvement
- Official certification
- Authorization

Open Badge is an innovative system used in the USA and many EU countries for the validation and recognition of learning using the OB technology offered as an open educational resource. It is a technology which promotes open access and participation of all stakeholders involved in badges process, while allowing the creation of synergies between the learners-earners (i.e. young people, students), the issuers (i.e. VET Schools, stakeholders, enterprises, NGOs including the VET trainers/ Volunteers as facilitators) and the badge consumers (i.e. employers, formal education, public authorities, official body). This will lead to the endorsement process leading to a transparent, transferable, valid and credible validation of a body of skills and knowledge related to a set of competences, such as coding skills for VET students and teachers.

Open Badges is a very inclusive solution: it enables anyone to get actively involved in designing, testing, implementing and promoting the learning outcomes and achievements. This is what major European documents on Recognition are calling for, as well as Erasmus+ in emphasizing the “transparency and recognition of skills and qualifications to facilitate learning, employability and labour mobility: priority will be given to actions promoting permeability across education, training and youth fields as well as the simplification ad

rationalisation of tools for transparency, validation and recognition of learning outcomes. This includes promoting innovative solutions for the recognition and validation of competences acquired through informal, non-formal, digital and open learning” (Horizontal Priorities).

Open Badge is a visual verified evidence of achievement. It has visual part (image) and meta-data, which is encoded in the image. Each digital badge must comply with the required standard data fields, such as: issuer, date of issue, description of the badge, link to assessment criteria, link to evidence of what badge owner is claiming, link to specific competence framework and tags, which puts an Open Badge in relation to specific context.

7. E-platform & ICT Guide

The GODIGITAL e-Learning Platform provides five (5) courses in five (5) different languages, twenty five (25) courses in total. The courses consist of the introductory video, initial/self-assessment quizzes for each module, teaching material, option (additional) exercises, a mandatory final assessment quiz and the e-Library with resources etc. Upon the successful completion of the final assessment quiz (above 85% and limit of two (2) attempts), users can earn a Badge for each module that verifies their skills. Additionally, an overall/super GODIGITAL badge can be awarded for the users who have successfully completes the five (5) modules. It is necessary for a user to sign up, log in and they can self-enrolled into the courses.

The purpose of this manual is to provide guidelines for the teachers how to use the platform and a general overview of GODIGITAL e-Learning Platform.

For more support:

<https://moodle.org/mod/forum/discuss.php?d=148275>

7.1 Step-by-step guide for teachers

STEP 1: LOG IN PAGE

- ✓ Visit moodle.teachersgodigital.eu
- ✓ Click on the “Log in” button at the upper right corner of the page
- ✓ Enter your credentials: username, password

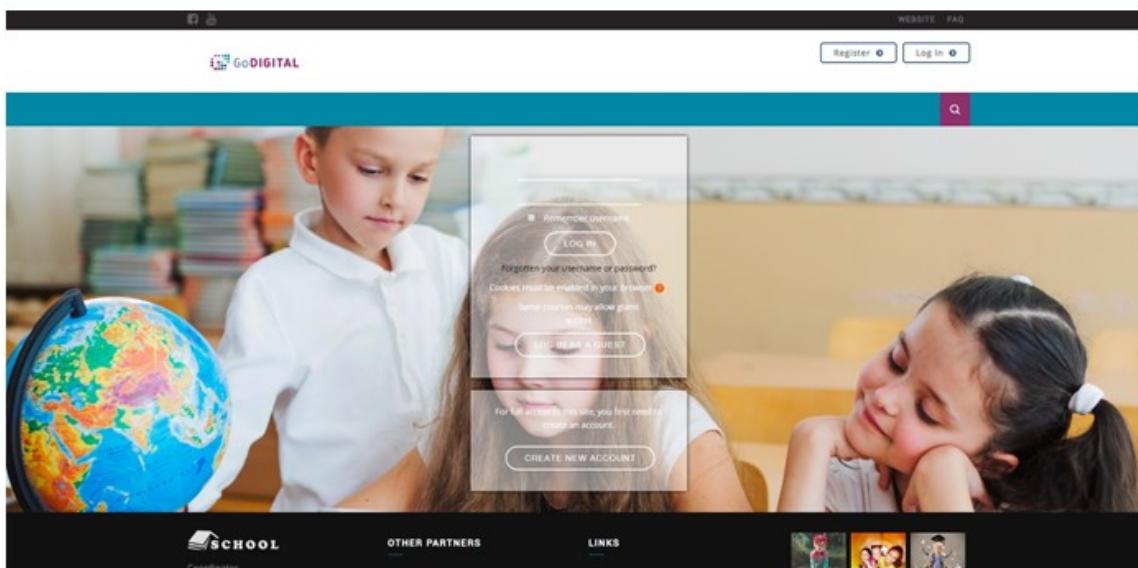


Figure 1: Log in page

Note:

- *The platform gives its users the opportunity to “remember” the credentials
- *There is a password recovery/change option

STEP 2: AVAILABLE COURSES

- ✓ Click on the “Settings icon” and select “Dashboard”



Figure 2: "Settings" Icon

Note:

*Each partner is enrolled with “Teacher” rights on their own module

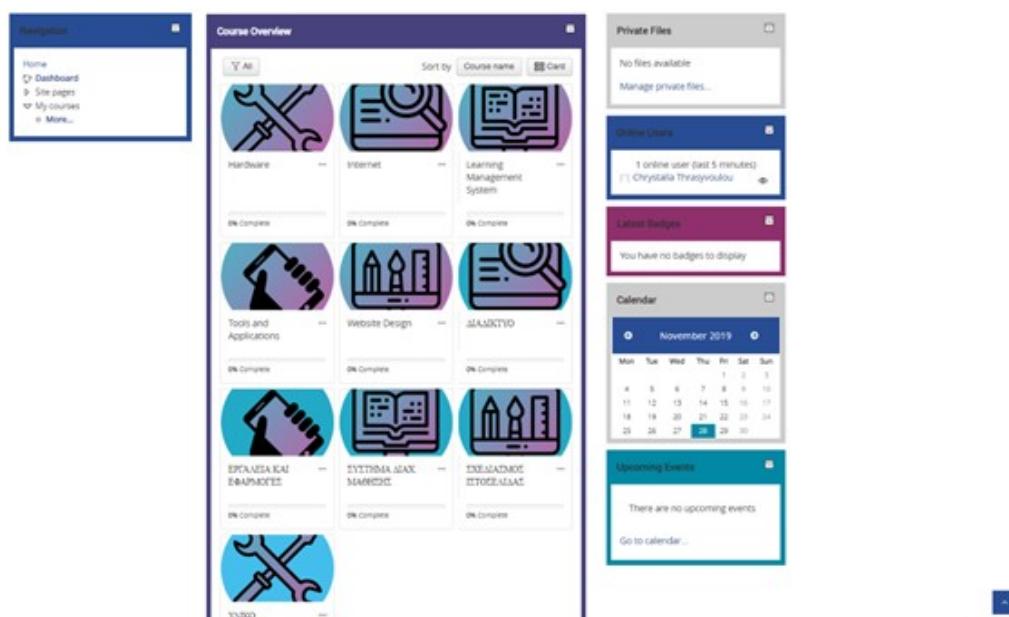


Figure 3: Dashboard page

- ✓ On the “Dashboard” page you will find the available courses that you are enrolled

STEP 3: UPLOAD ACTIVITIES/RESOURCES

- ✓ Click on your Module and you want to upload activities/resources (Teaching material).

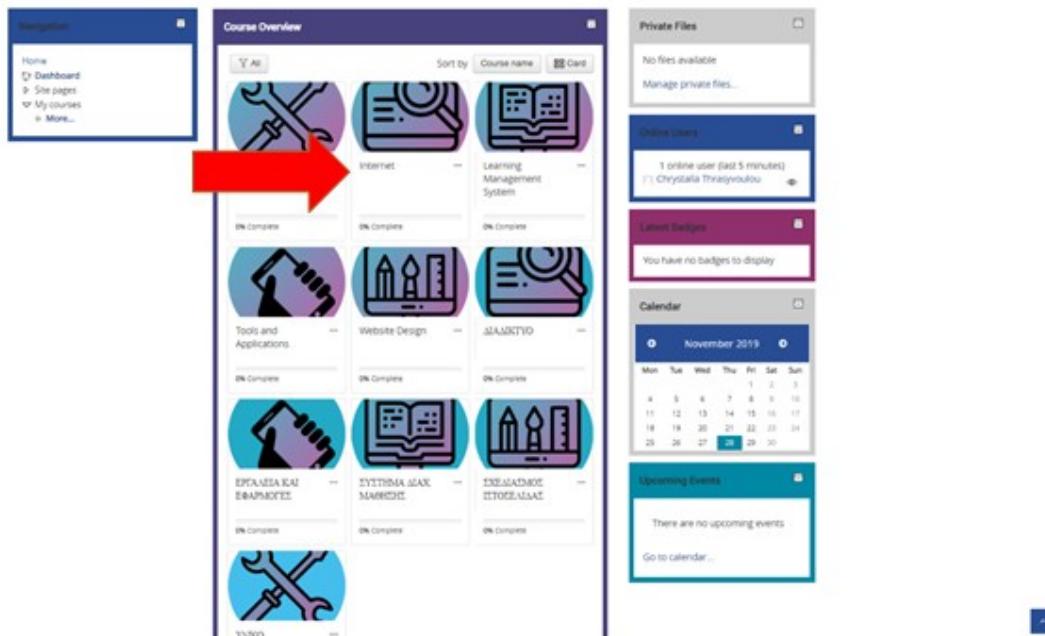


Figure 4: Module selection

- ✓ Click on the “Turn editing on”

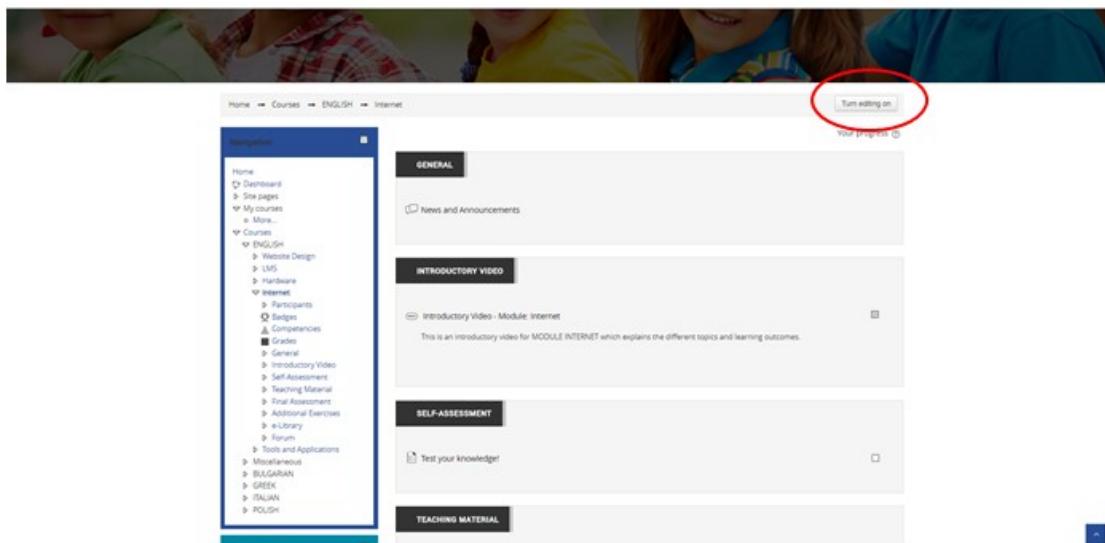


Figure 4: “Turn Editing” button

Note:

*Is important to always click on the “Turn editing on” button wherever you want to add activities/resources or assessments etc.

INTRODUCTORY VIDEO

- ✓ Click on the “Add an activity or resource” in the *INTRODUCTORY SECTION* Section

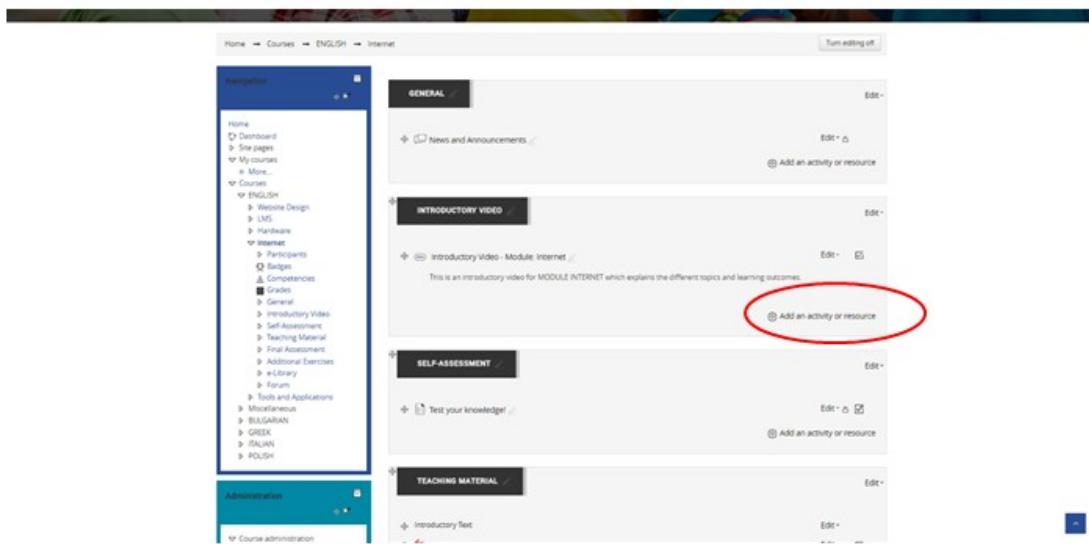


Figure 5: "Add an activity or resource"

- ✓ Select “URL” from the activities/resources options.

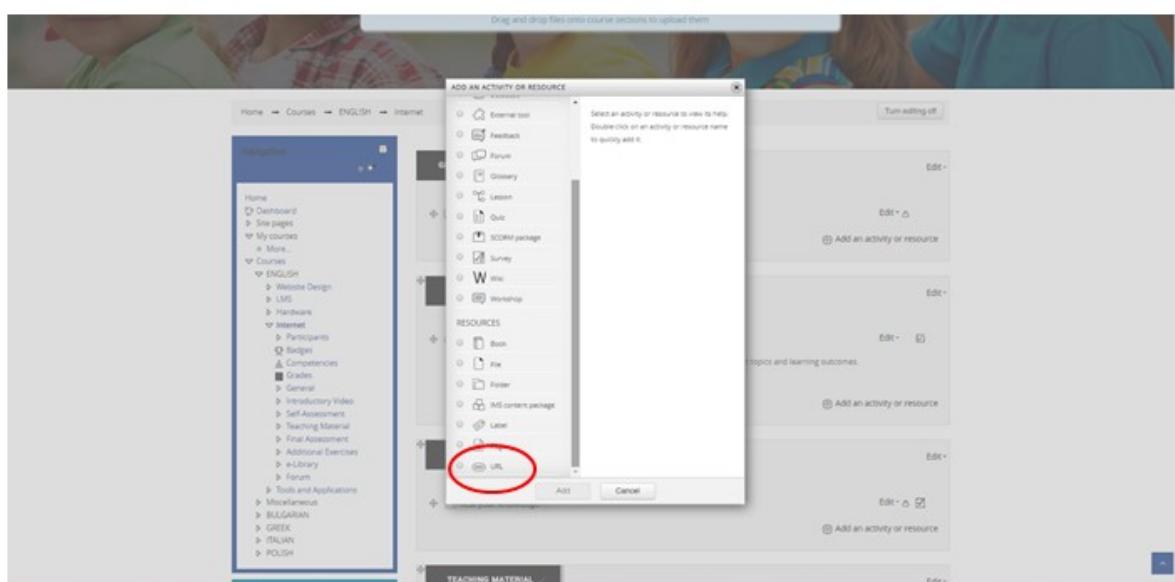


Figure 5: Add “URL”

- ✓ Now you can see the settings for the URL to be added
- ✓ Please add to the 'GENERAL settings':
 - .a *Name* (e.g. Introductory Video - Module: Internet)
 - .b *URL* of the video
 - .c *Description* (e.g. This is an introductory video for MODULE INTERNET which explains the different topics and learning outcomes)
 - .d Tick 'Display description on course page'. Due to the fact that is more user friendly for the users to understand what is about the video.
- ✓ Please add to the 'APPEARANCE settings':
 - .a *Display*: You can use any option for the URL how to be demonstrated in the platform e.g. automatically download the URL, to open it in a new tab or new window. For this scenario we use '*In pop-up*' option.
- ✓ Please add to the 'ACTIVITY COMPLETION settings':
 - .a *Completion tracking*: Click on the completion "Students can manually mark the activity as completed" this means that students can manually tick the activity when is done.
- ✓ Then click 'Save and return to the course'

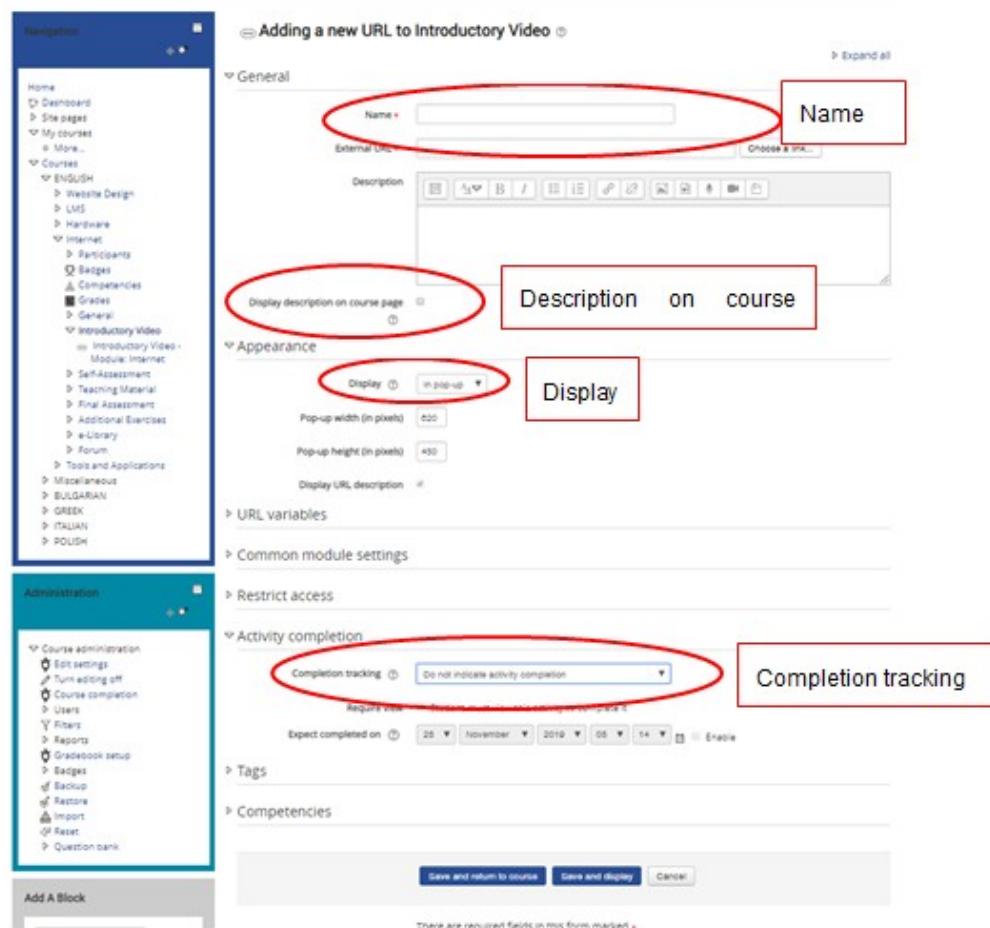
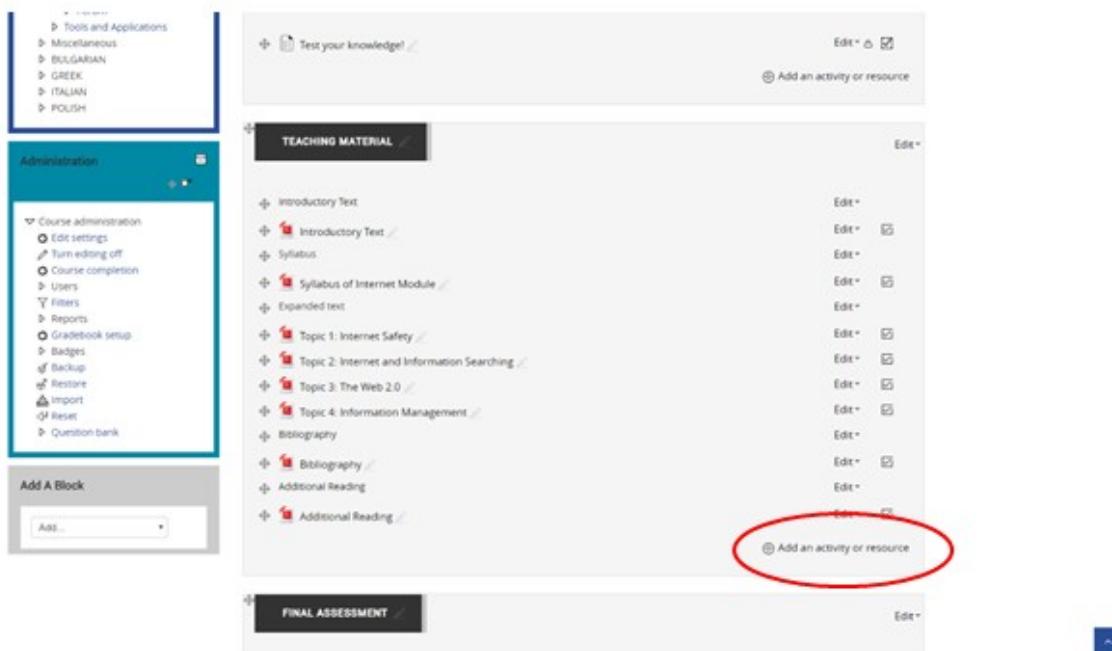


Figure 6: "URL" Settings

TEACHING MATERIAL

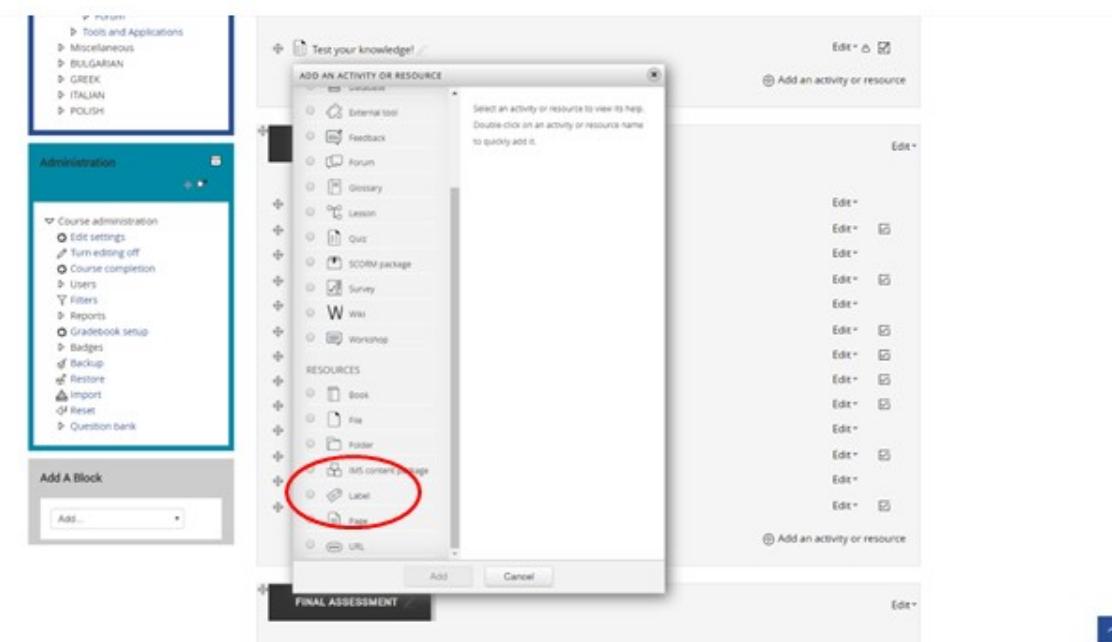
- ✓ Click on the “Add an activity or resource” in the *TEACHING MATERIAL* Section



The screenshot shows the Moodle course administration interface. On the left, there's a sidebar with links like 'Administration', 'Course administration', and 'Add A Block'. The main area is titled 'TEACHING MATERIAL' and lists various activities: 'Introductory Text', 'Syllabus', 'Expanded text', 'Topic 1: Internet Safety', 'Topic 2: Internet and Information Searching', 'Topic 3: The Web 2.0', 'Topic 4: Information Management', 'Bibliography', 'Additional Reading', and 'Additional Reading'. At the bottom right of this list, there's a button labeled '(+) Add an activity or resource'.

Figure 7: "Add an activity or resource"

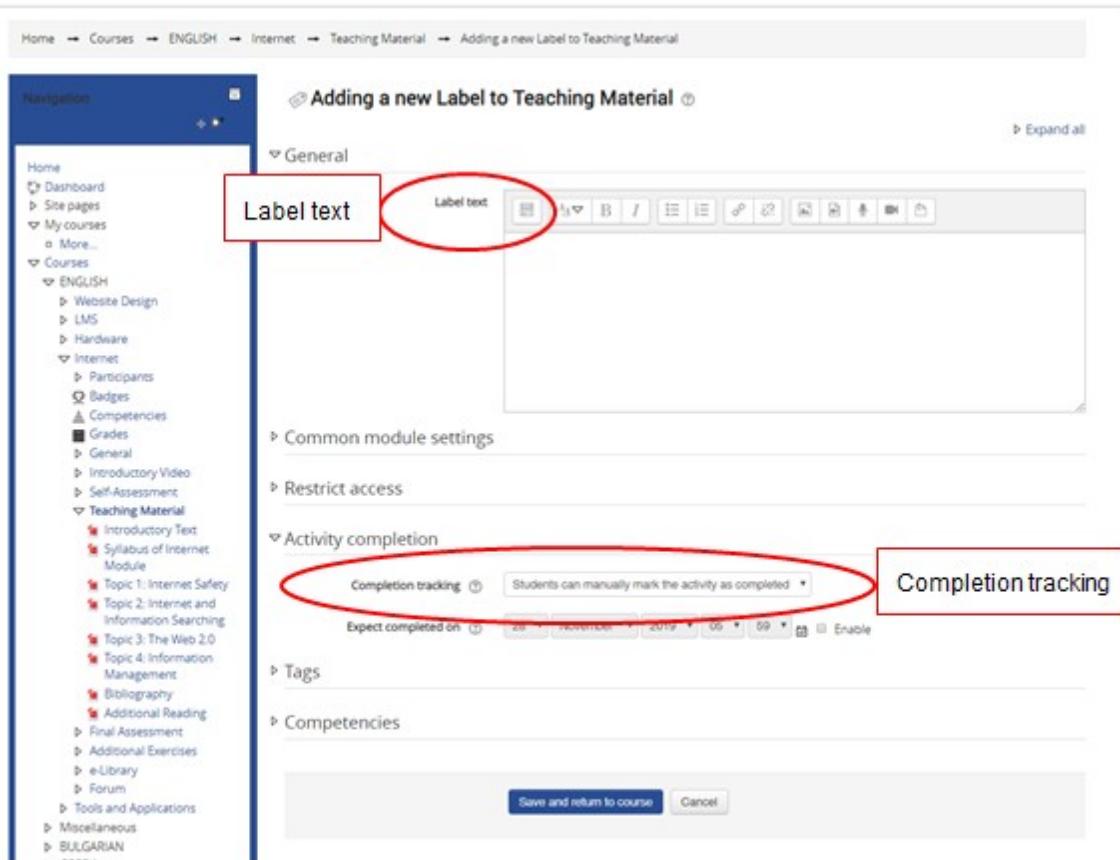
- ✓ Select “Label” from the activities/resources options.



This screenshot shows the 'ADD AN ACTIVITY OR RESOURCE' dialog box. It lists various activity types under categories like 'External tool', 'Feedback', 'Forum', 'Glossary', 'Lesson', 'Quiz', 'SCORM package', 'Survey', 'Wiki', 'Workshop', and 'RESOURCES'. Under 'RESOURCES', there are options for 'Book', 'File', 'Folder', and 'Label'. The 'Label' option is circled in red. At the bottom of the dialog box are 'Add' and 'Cancel' buttons.

Figure 8: Add "Label"

- ✓ Now you can see the settings for the LABEL to be added
- ✓ Please add to the 'GENERAL settings':
 - .a *Label text* (e.g. Introduction)
- ✓ Please add to the 'ACTIVITY COMPLETION' settings':
 - .a *Completion tracking*: Click on the completion "Do not indicate activity completion" this means is not necessary to know if this activity is completed
- ✓ Then click 'Save and return to the course'



The screenshot shows the 'Adding a new Label to Teaching Material' page. On the left is a navigation sidebar with various course categories like Home, Dashboard, Site pages, My courses, Courses, English, Internet, Participants, Badges, Competencies, Grades, General, Introductory Video, Self-Assessment, Teaching Material (with sub-options like Introductory Text, Syllabus of Internet Module, Topic 1: Internet Safety, etc.), Additional Reading, Final Assessment, Additional Exercises, e-Library, Forum, Tools and Applications, and Miscellaneous. The main area has a title 'Adding a new Label to Teaching Material'. It contains sections for 'General' (with a 'Label text' input field), 'Common module settings', 'Restrict access', 'Activity completion' (with a 'Completion tracking' dropdown set to 'Students can manually mark the activity as completed'), 'Tags', and 'Competencies'. At the bottom are 'Save and return to course' and 'Cancel' buttons.

Figure 9: "Label" Settings

- ✓ After you create the label, you need to add the Files.
Click on the "Add an activity or resource" in the TEACHING MATERIAL Section
- ✓ Click "File"

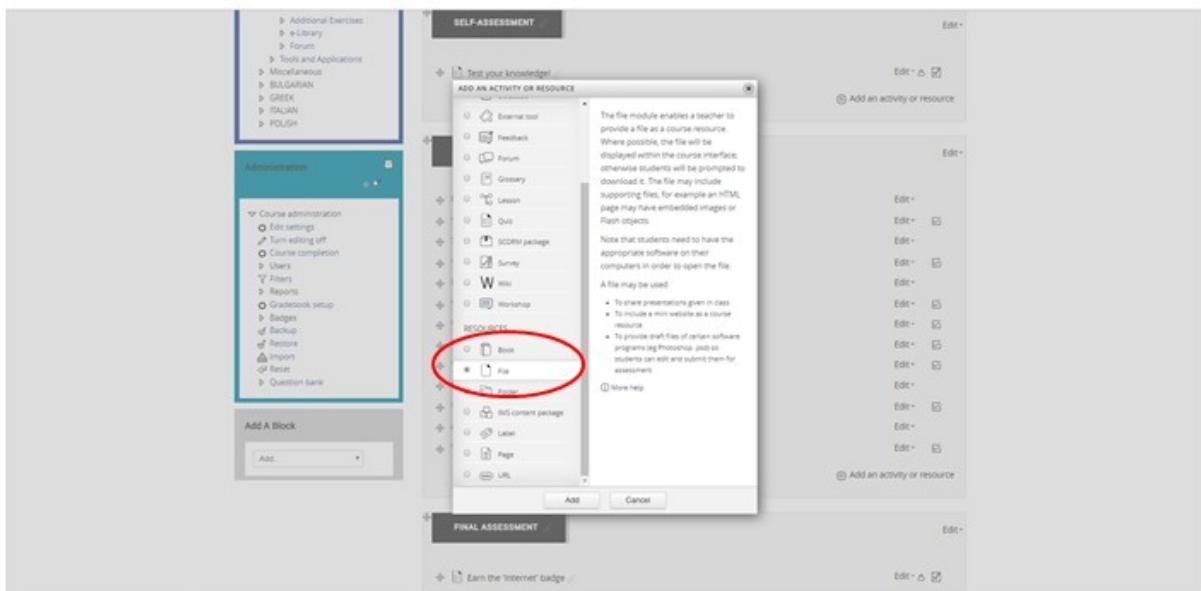
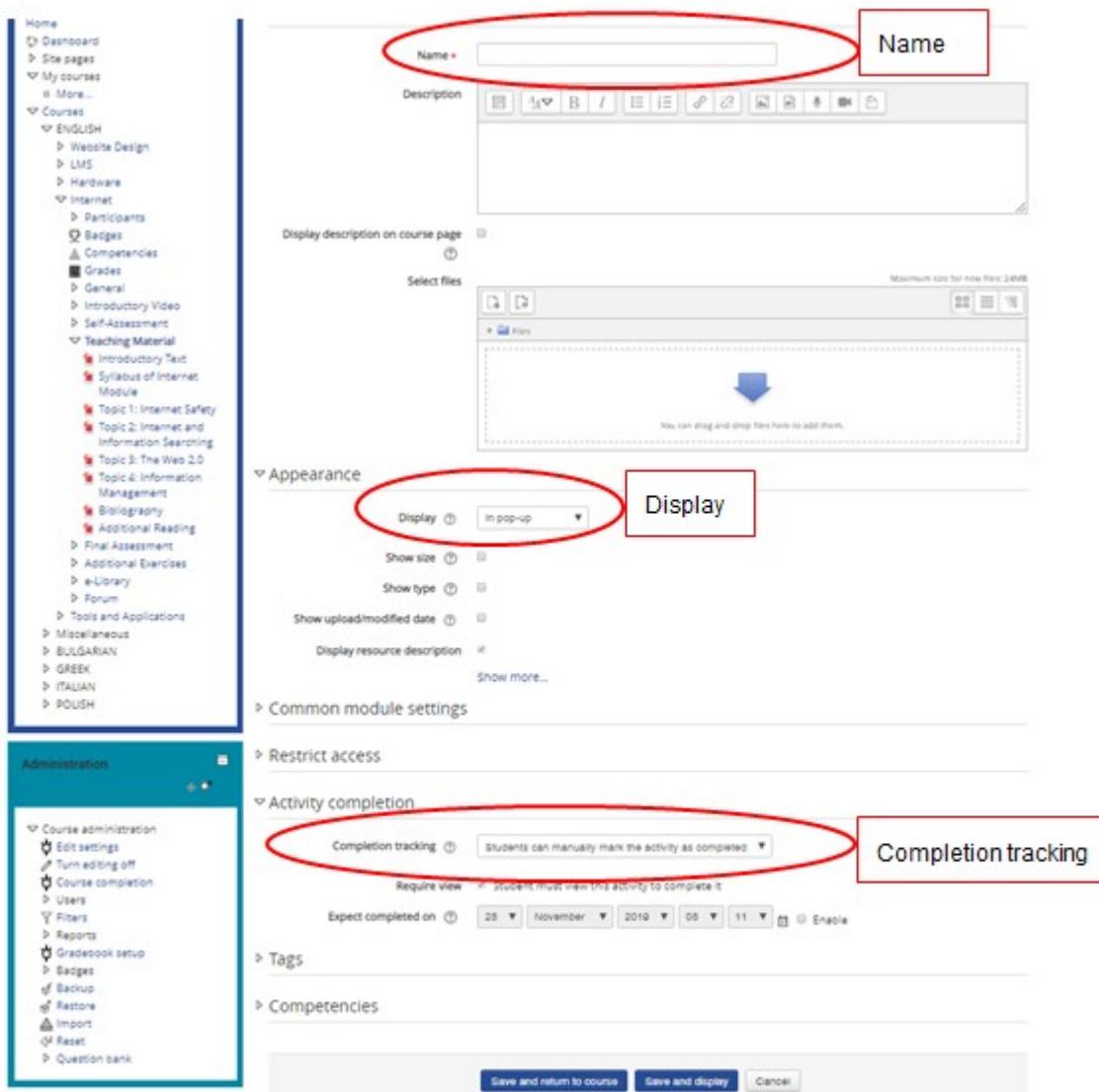


Figure 10: Add "Label"

- ✓ Now you can see the settings for the FILE to be added
- ✓ Please add to the 'GENERAL settings':
 - .a *Name* (e.g. Introductory Text)
 - .b *Select files* (select your file – PDF file)
- ✓ Please add to the 'APPEARANCE settings'
 - .a *Display*: In pop-up
- ✓ Please add to the 'ACTIVITY COMPLETION settings':
 - .a *Completion tracking*: 'Students can manually mark the activity as completed'
- ✓ Then click 'Save and return to the course'



The screenshot shows the GoDIGITAL platform's course management interface. On the left, a sidebar lists various course categories and language options. The main area displays a 'Course settings' page for a module named 'Topic 1: Internet Safety'. The 'Name' field is circled in red. Below it, the 'Display' dropdown menu is also circled in red, showing 'In pop-up' selected. In the 'Completion tracking' section, the 'Completion tracking' dropdown and its description ('Students can manually mark the activity as completed') are circled in red. A large blue arrow points downwards from the 'Display' section towards the 'Completion tracking' section.

Figure 11: "Label" settings

STEP 4: UPLOAD ASSESSMENTS

- Click on the “Add an activity or resource” under Self or Final Assessment Section.
- Click on the “Quiz”

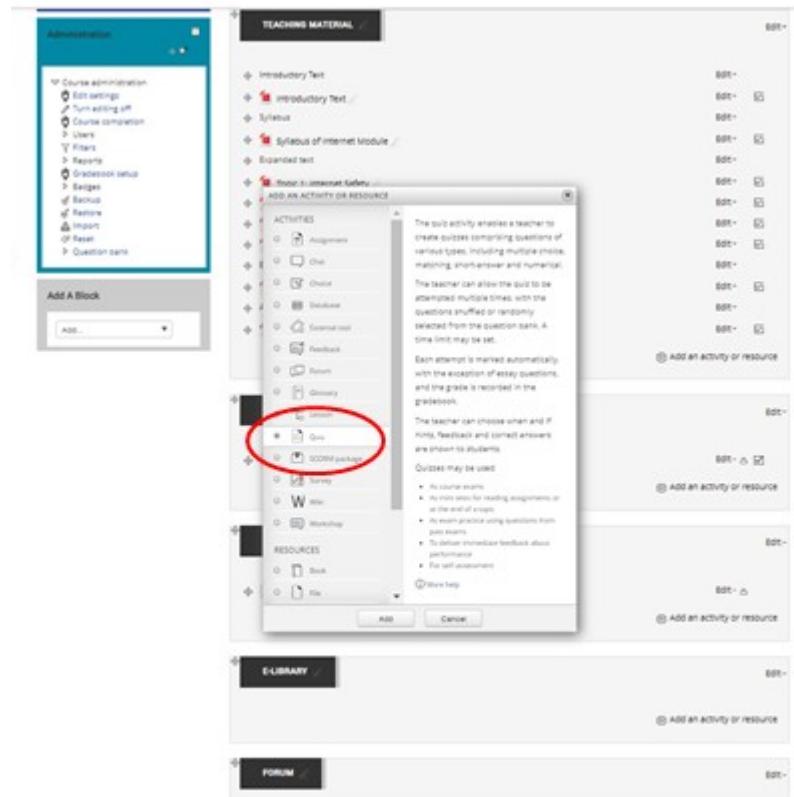
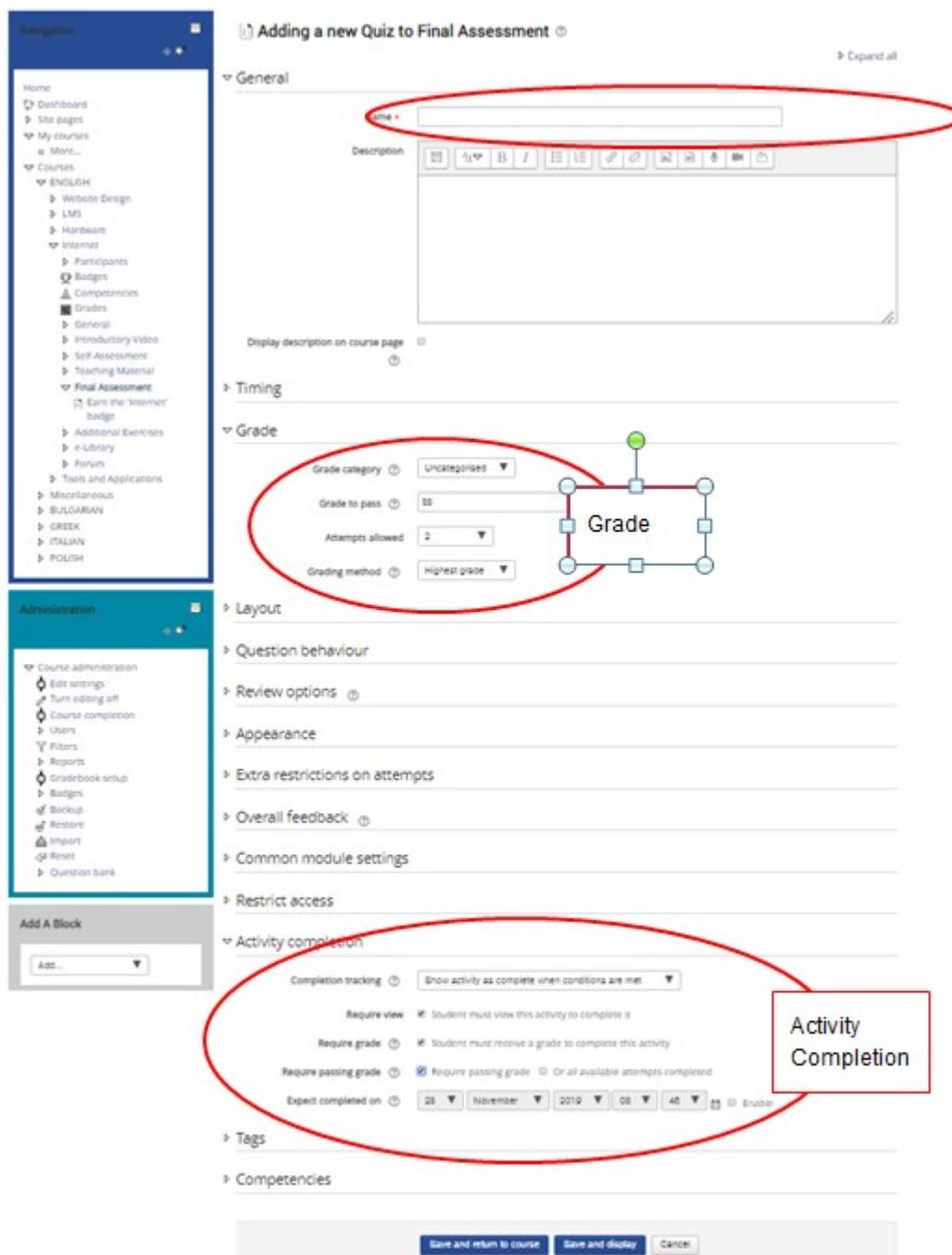


Figure 12: Add activity or resource – Assessments

- ✓ Now you can see the settings for the QUIZ to be added
- ✓ Please add to the 'GENERAL settings':
 - .a *Name* of the quiz (e.g. Earn the Internet Badge!)
- ✓ Please add to the GRADE settings'
 - .a *Grade to pass:* 85% (as we agreed)
 - .b *Attempts to be allowed:* 2
- ✓ Please add to the 'ACTIVITY COMPLETION settings':
 - .a *Completion tracking:* 'Show activity as complete when conditions are met'
 - .b *Request view:* Tick
 - .c *Require grade:* Tick
 - .d *Require passing grade:* Tick – *Require passing grade*
- ✓ Then click 'Save and return to the course'

Note:

*Only for the *FINAL ASSESSMENT QUESTIONS* we need the restrictions for the Grade.



The screenshot shows the 'Adding a new Quiz to Final Assessment' page in the GoDIGITAL LMS. The left sidebar includes 'Navigation' and 'Administration' menus. The main area has sections for 'General', 'Timing', 'Grade', 'Layout', 'Question behaviour', 'Review options', 'Appearance', 'Extra restrictions on attempts', 'Overall feedback', 'Common module settings', 'Restrict access', 'Activity completion', 'Tags', and 'Competencies'. Buttons at the bottom include 'Save and return to course', 'Save and display', and 'Cancel'.

General: Time (circled), Description (with rich text editor).

Grade: Grade category (Uncategorised), Grade to pass (BB), Attempts allowed (2), Grading method (Highest grade).

Activity completion: Completion tracking (Show activity as complete when conditions are met), Require view (Student must view this activity to complete it), Require grade (Student must receive a grade to complete this activity), Require passing grade (checked), Expect completed on (20 November 2019, 08:40, Enabled).

Figure 13: "Assessments" settings

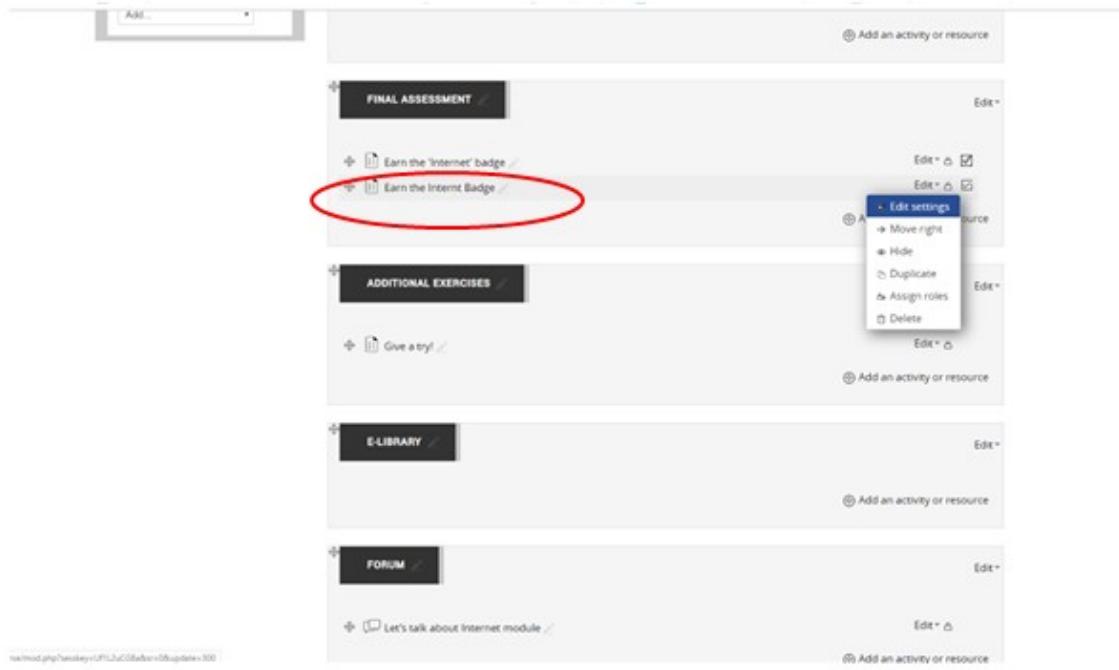
Note:

*Please create a quiz for self and final assessments

*You need to create quizzes and add questions into the quiz

*For the **SELF-ASSESSMENT QUESTIONS** do not use the settings for the GRADE (leave them as it is) and also in the ACTIVITY COMPLETION settings Do not click the Passing grade

- ✓ Then, the quiz is created
- ✓ Click on the 'Earn the Internet Badge'



The screenshot shows the 'Assessments' section of a Moodle course. At the top, there is an 'Add' button and an 'Edit' button. Below this, there are three main categories: 'FINAL ASSESSMENT', 'ADDITIONAL EXERCISES', and 'E-LIBRARY'. The 'FINAL ASSESSMENT' category contains two activities: 'Earn the "Internet" badge' and 'Earn the Internet Badge'. The second activity has a red circle drawn around it. To the right of these activities is an 'Edit' menu with options: Edit settings (highlighted in blue), Move right, Hide, Duplicate, Assign roles, and Delete. Below the 'FINAL ASSESSMENT' category is another 'Edit' button. The 'ADDITIONAL EXERCISES' category contains one activity: 'Give a try!'. The 'E-LIBRARY' category contains one activity: 'Let's talk about Internet module'. At the bottom of the page, there is a URL: 'nse/mod.php?taskkey=Uf1L2uG0&action=0&update=300'.

Figure 14: "Assessments" settings

- ✓ Click on the 'Edit quiz'

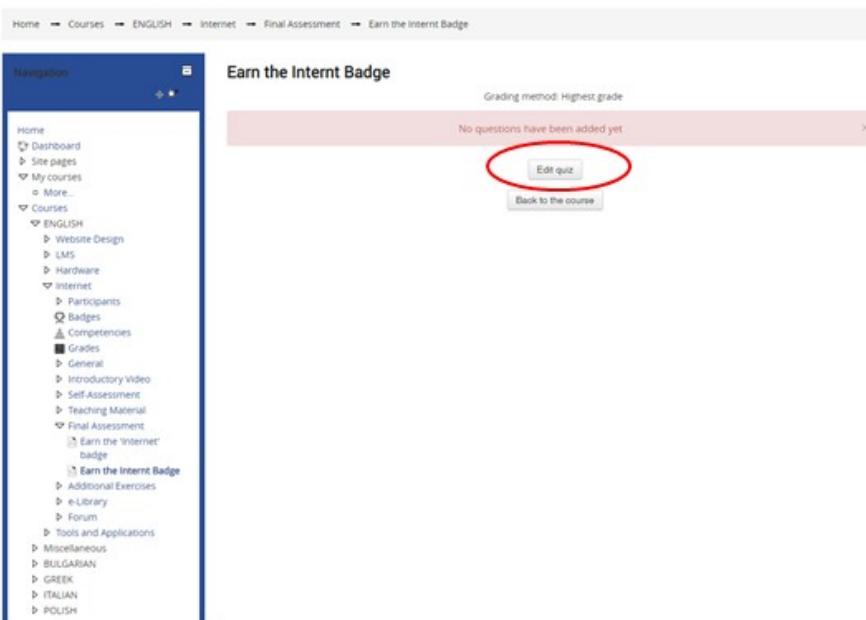


Figure 15: Edit quiz

- ✓ Now you need to add questions into the quiz
- ✓ Firstly, you need to change the maximum grade to 100
- ✓ Click Save

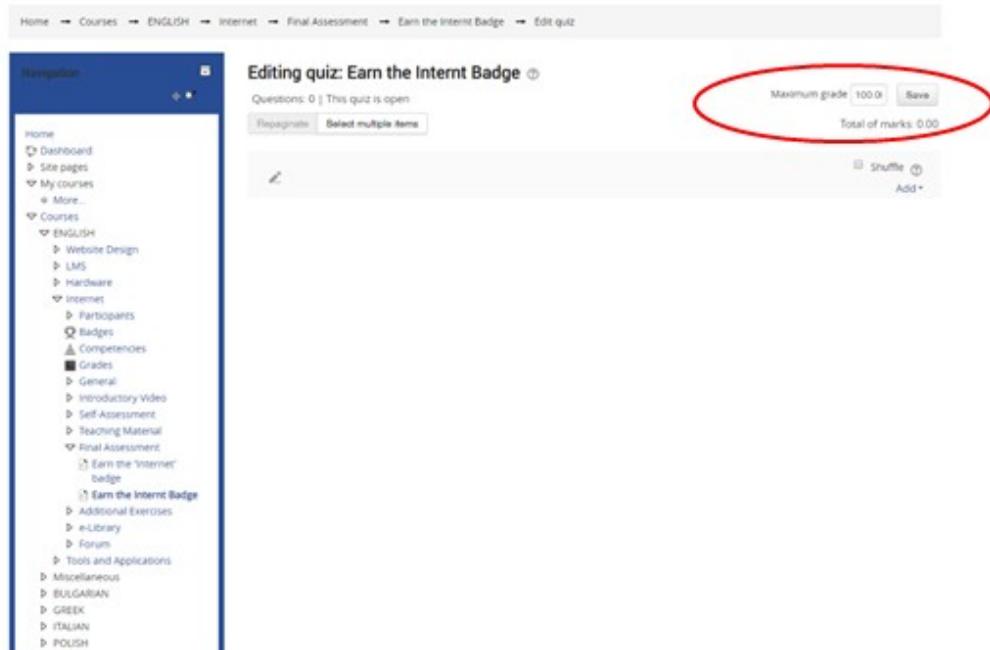


Figure 15: Edit quiz

- ✓ Click to the 'Add button' to add your questions

- ✓ Then, click 'Add a new question'

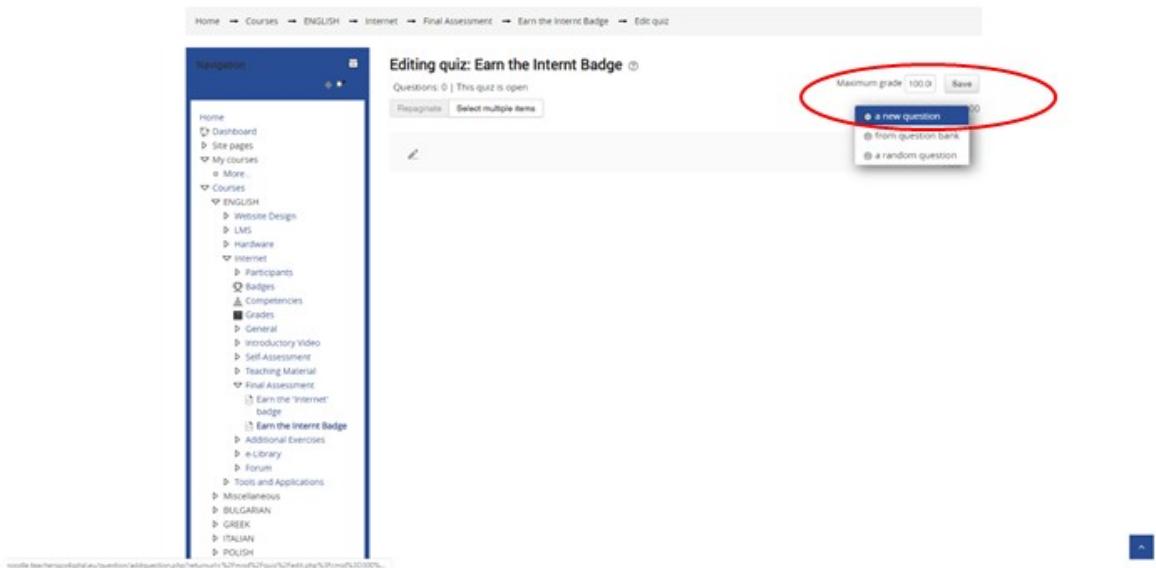


Figure 16: Add a new question

- ✓ There are several question types for the assessments
- ✓ Click 'Multiple Choice'

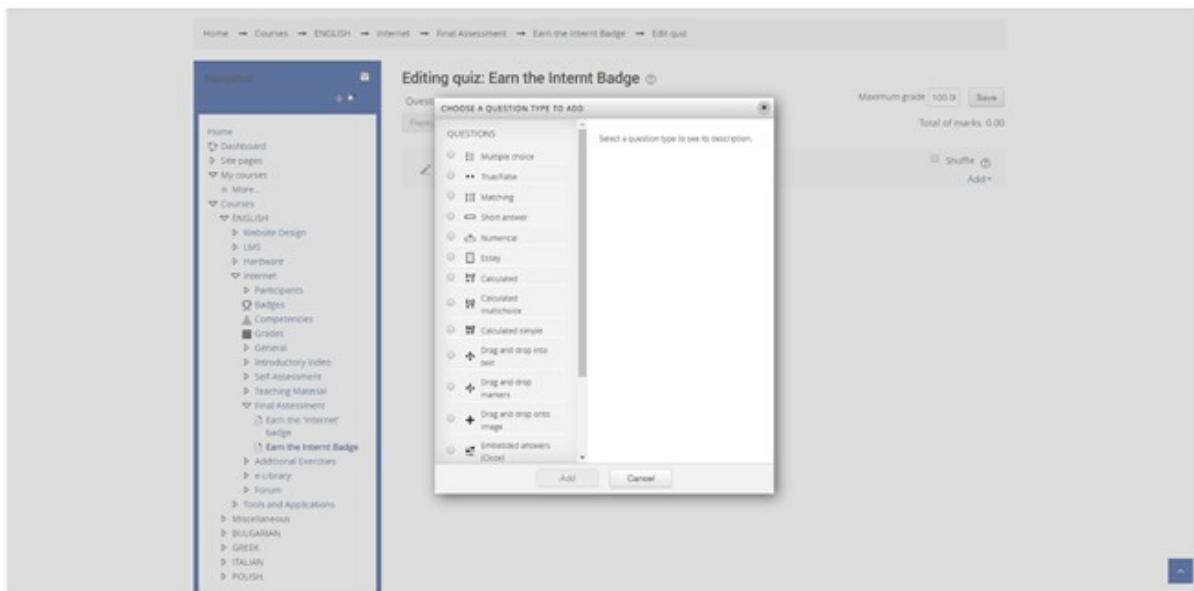
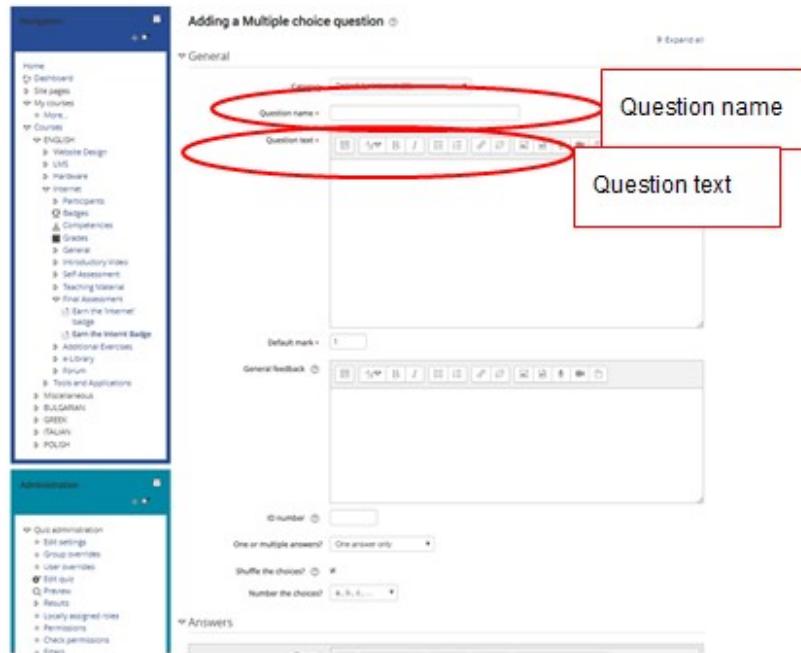


Figure 17: Multiple choice question

- ✓ Then, you can add the question name (e.g. Question 1), Question text (e.g. What is Internet?) and the options for the multiple choice question



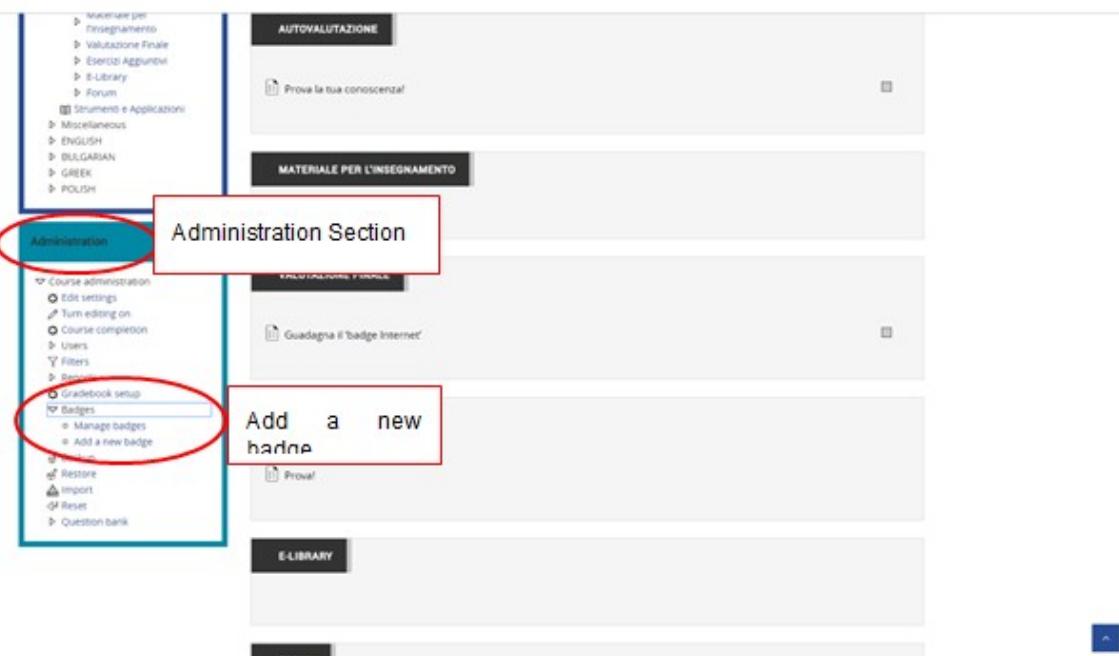
The screenshot shows the 'Adding a Multiple choice question' interface. On the left, there's a sidebar with navigation links like 'Home', 'Courses', 'Participants', 'Badges', 'Conferences', 'Greece', 'General', 'Introductory Video', 'Self-Assessment', 'Teaching material', 'Final Assessment', 'E-Library', 'Forum', 'Tools and Applications', 'Miscellaneous', 'BULGARIAN', 'GREEK', 'ITALIAN', and 'POLISH'. The main area has sections for 'General', 'Answers', and 'Feedback'. The 'General' section includes fields for 'Question name' (with a red box), 'Question text' (with a red box), 'Default mark', 'General feedback', 'ID number', 'One or multiple answers?', 'Shuffle the choices?', and 'Number the choices?'. The 'Answers' section is currently empty.

Note:

*The procedure for adding questions is the same between SELF AND FINAL ASSESSMENT QUESTIONS but from the questions types you can choose whatever you prefer.

STEP 5: UPLOAD BADGES

- ✓ Click on your module
- ✓ On the left-hand side under “Administration” section, click “Badges” and “Add a new badge”



The screenshot shows the 'Administration' section of the GoDIGITAL platform. On the left, there's a sidebar with 'Course administration' options: 'Edit settings', 'Turn editing on', 'Course completion', 'Users', 'Filters', 'Gradebook setup', 'Badges' (highlighted with a red box), 'Restore', 'Import', 'Reset', and 'Question bank'. The main area has sections for 'AUTOVALUTAZIONE', 'MATERIALE PER L'INSEGNAMENTO', 'EVALUATION & BADGES', and 'E-LIBRARY'. The 'EVALUATION & BADGES' section contains a box labeled 'Add a new badge' with a red box around it. There are also sections for 'Prova la tua conoscenza!' and 'Guadagna il badge Internet'.

Figure 19: Add a new badge

- ✓ Now you can see the settings for the BADGE to be added
- ✓ Please add to the 'BADGE DETAILS':
 - .a *Name* of the quiz (e.g. Earn the Internet Badge!)
 - .b *Language* (choose your language)
 - .c *Description:* Add a brief description of your badge, more specifically what the users will earn with this badge. Please add the following and revise it accordingly to your module and the topics: (you will find the topics for each module into the framework)

The earner of this badge took part in the module INTERNET of the training GODIGITAL. Summary of topics based on the main topics of Module – Internet are:

- 1.1 Security/safety on the net
- 1.2 Info search on the net
- 1.3 Web 2.0
- 1.4 Info management
- .d *Image:* Upload the image of the badge (Uploaded in the Google Drive under the IO2 > Open Badges)

- ✓ Please add to the 'ISSUER DETAILS' settings:
 - .a *Name:* GODIGITAL Consortium
- ✓ Then click 'Create a badge'

Navigation

- Home
- Dashboard
- Site pages
- My courses
 - More...
- Courses
 - Progettazione del Sito Web
 - Sistema di Gestione dell'Apprendimento
 - Hardware Italiano
 - Internet Italiano
 - Participants
 - Badges
 - Competencies
 - Grades
 - General
 - Video Introattivo
 - Autovalsutazione
 - Materiale per l'insegnamento
 - Valutazione Finale
 - Esercizi Aggiuntivi
 - E-Library
 - Forum
 - Strumenti e Applicazioni
 - Miscellaneous
 - ENGLISH
 - BULGARIAN
 - GREEK
 - POLISH

Administration

- Course administration
 - Edit settings
 - Turn editing on
 - Course completion
 - Users
 - Filters
 - Reports
 - Facebook setup
 - Badges
 - Manage badges
 - Add a new badge
 - Backup
 - Restore
 - Import
 - Reset

Badge details

Name * Name

Version Language

Description * Description

Image * Maximum size for new files: 256KB Image

You can drag and drop files here to add them.

Accepted file types:

- Image (GIF) .gif
- Image (JPEG) .jpg .jpeg .jng
- Image (PNG) .png
- Image (SVG+XML) .svg .nvg

Image author's name

Image author's email

Image author's URL

Image caption

Issuer details

Name * Issuer details Name

Contact

Badge expiry

Figure 20: Badge settings

- ✓ Now is the time to add the criteria (How the users will earn the badge)
- ✓ Click from the drop down list 'Activity completion'

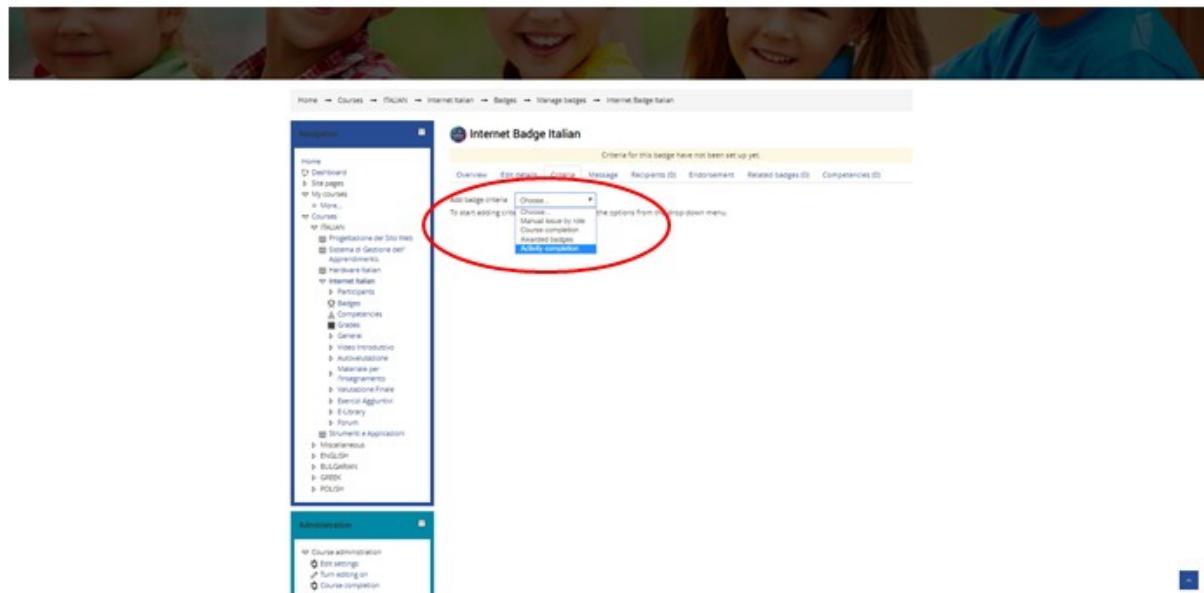


Figure 21: Badge settings – Add criteria

- ✓ Now you need to click in to the 'Final assessment test' for your module. This means that when the user completed the final assessment he/she will earn the badge.
- ✓ Then click 'Save'

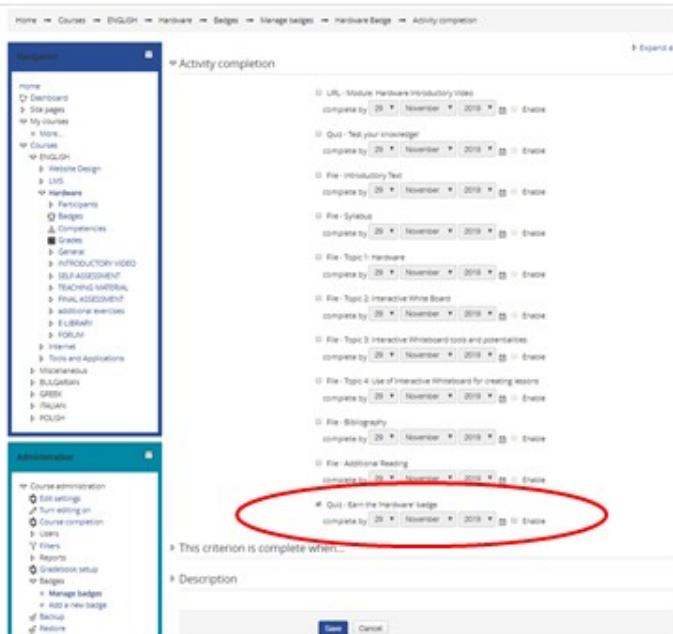
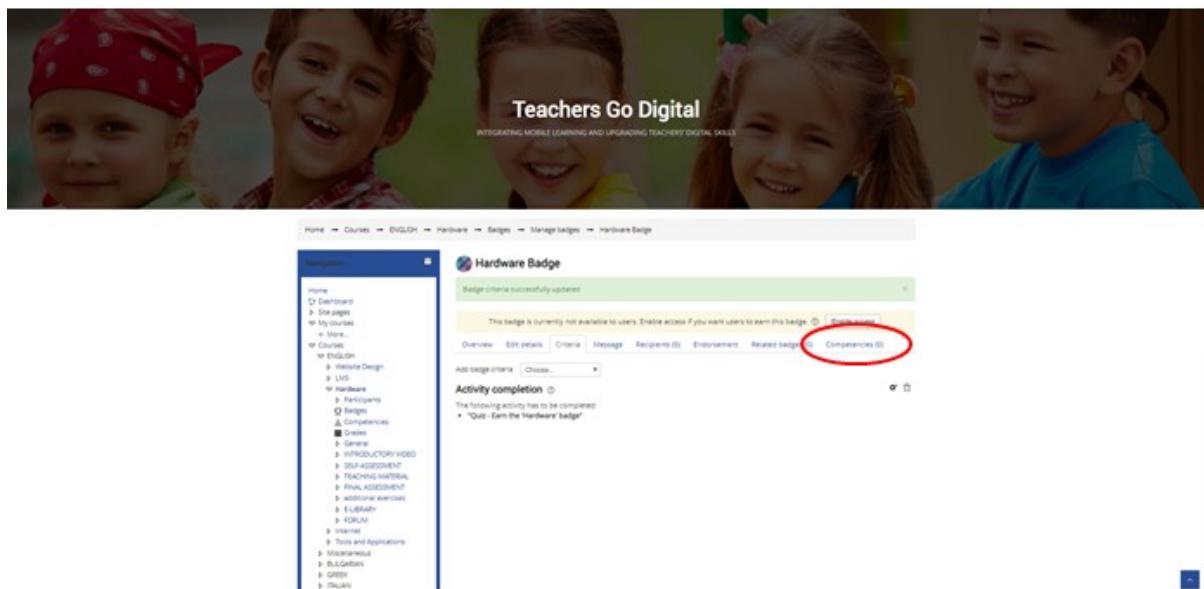


Figure 22: Badge settings – Add criteria

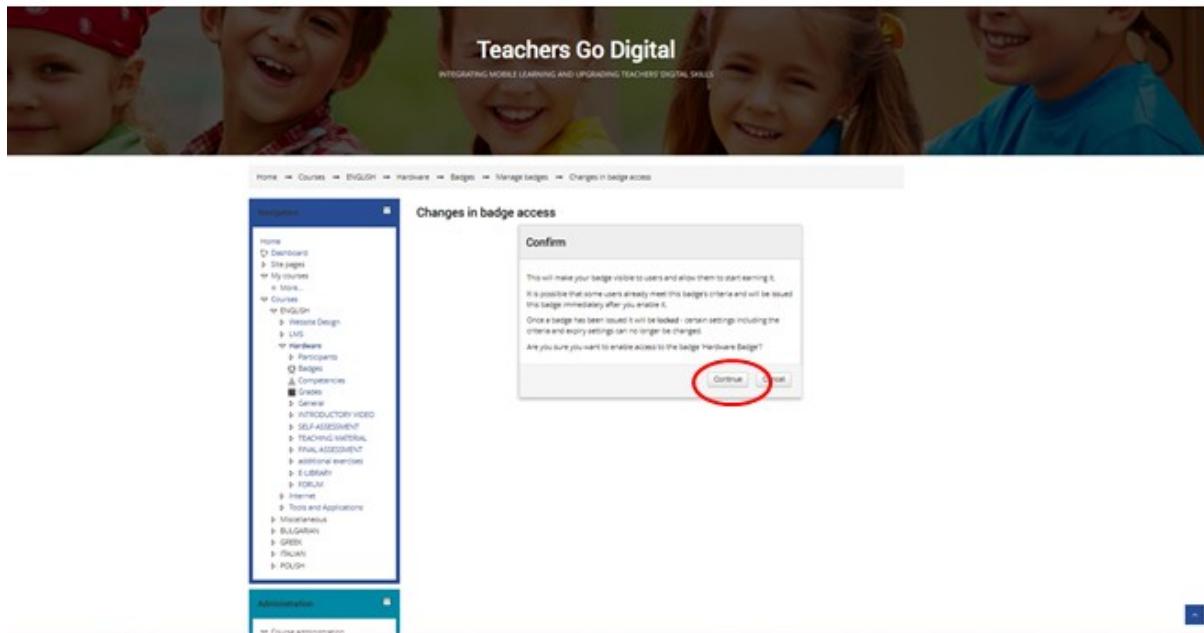
- ✓ Is important to click 'Enable access' for the users to be visible.



The screenshot shows the Go DIGITAL platform's badge management section. The top navigation bar includes Home, Courses, ENGLISH, Hardware, Badges, Manage badges, and Hardware Badge. On the left, a sidebar lists various modules: Home, Dashboard, Site pages, My courses, More..., Courses, ENGLISH, Website Design, LMS, Hardware, Participants, Grades, General, ANNOTATION/VIDEO, SELF-ASSESSMENT, TEACHING MATERIAL, FINAL ASSESSMENT, additional exercises, E-LIBRARY, FORUM, Internet, Tools and Applications, Miscellaneous, BULGARIAN, GREEK, ITALIAN. The main content area is titled 'Hardware Badge' with a message 'Badge criteria successfully updated'. It shows tabs for Overview, Edit details, Criteria, Message, Recipients (0), Endorsement, Related badge, and Competences (0). Below is a section for 'Activity completion' with a note: 'The following activity has to be completed: * "QUI - Earn the Hardware badge"'. A red circle highlights the 'Competences (0)' tab.

Figure 23: Enable access

- ✓ Click 'Continue' to confirm for the changes in badges settings
- ✓ Then you will see the badges into your modules



The screenshot shows the Go DIGITAL platform's 'Changes in badge access' confirmation dialog. The left sidebar is identical to Figure 23. The dialog box is titled 'Changes in badge access' and contains a 'Confirm' section with the following text: 'This will make your badge visible to users and allow them to start earning it. It is possible that some users already meet this badge's criteria and will be issued this badge immediately after you enable it. Once a badge has been issued it will be locked - certain settings, including the criteria and expiry settings can no longer be changed.' At the bottom are two buttons: 'Continue' (highlighted with a red circle) and 'Cancel'.

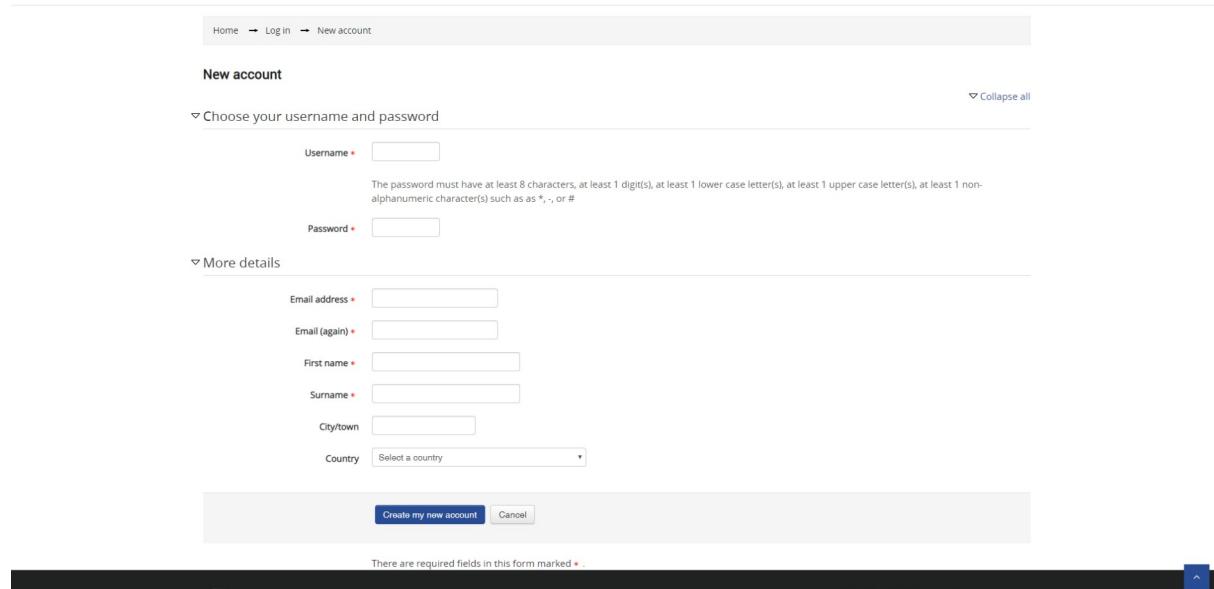
Figure 24: Confirm – changes in badges settings

7.2. Step-by-step guide for students

STEP 1: HOW DO I SIGN UP?

Visit moodle.teachersgodigital.eu

- ✓ Click on the “Register” button at the upper right corner of the page
- ✓ Fill in your personal information: username, password, email address, first name, surname, city and country
- ✓ Click on ‘Create my new account’ button



The screenshot shows a registration form titled "New account". At the top, there are links for "Home", "Log in", and "New account". Below the title, a section titled "Choose your username and password" contains fields for "Username" and "Password". A note specifies that the password must be at least 8 characters long, containing at least one digit, one lowercase letter, one uppercase letter, and one non-alphanumeric character like *, -, or #. Another section titled "More details" contains fields for "Email address", "Email (again)", "First name", "Surname", "City/town", and "Country". A dropdown menu for "Country" is shown with "Select a country" selected. At the bottom of the form are "Create my new account" and "Cancel" buttons. A message at the bottom states: "There are required fields in this form marked *".

Figure 1: Registration Form

Note:

*You will receive a confirmation email with a link which you must click in order to validate your profile.

STEP 2: HOW DO I LOG IN?

- Visit moodle.teachersgodigital.eu
- Click on the “Log in” button at the upper right corner of the page
- Click on ‘log in’ button at the upper right corner of the page
- Enter your credentials: username and password

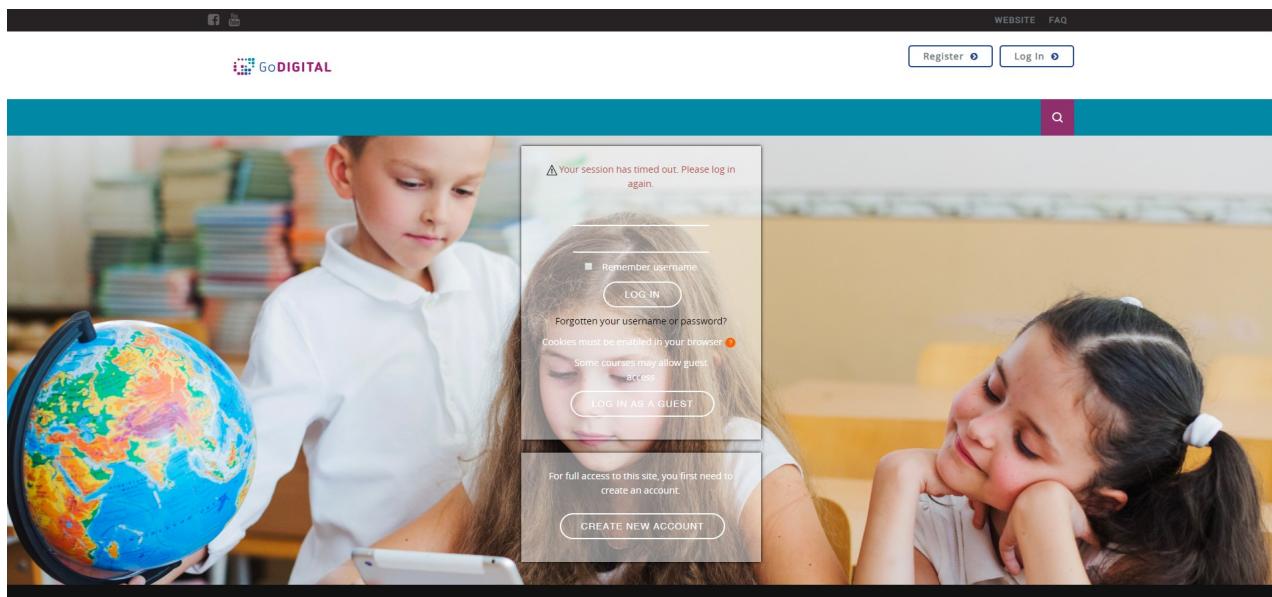


Figure 2: Log in page

Note:

- * The platform gives its users the opportunity to “remember” the credentials
- * There is a password recovery/change option

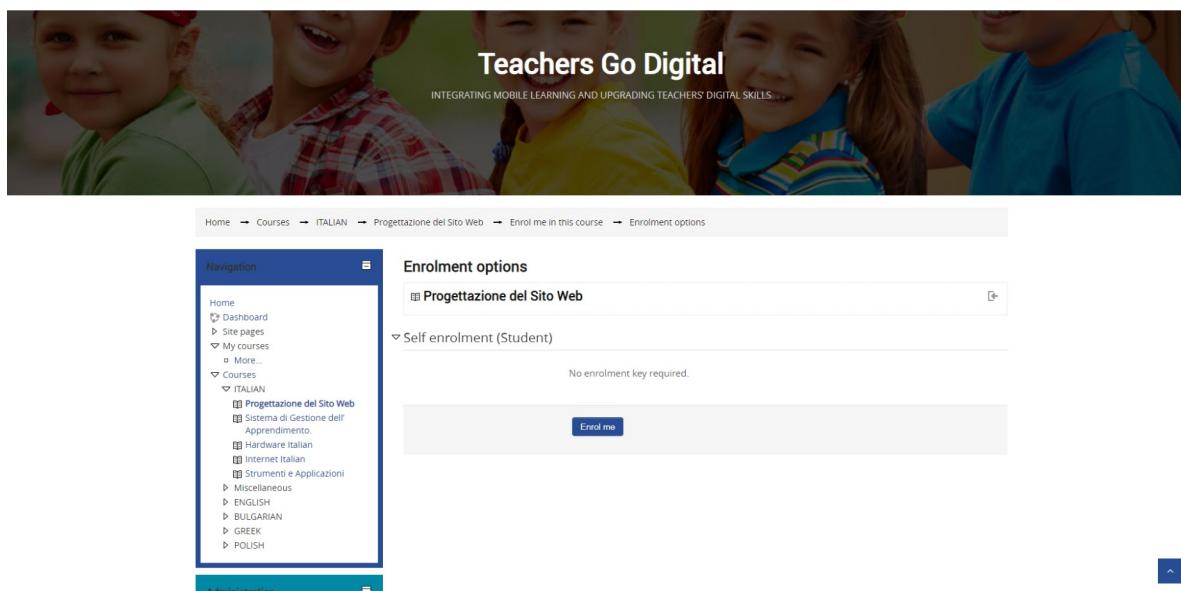
STEP 3: WHERE CAN I FIND THE AVAILABLE COURSES?

- Log in (Step 2)
- Click on the 'Home' tab

Figure 3: TEACHERSGODIGITAL Home Page

STEP 4: HOW DO I ENROLL IN A COURSE?

- Log in (Step 2)
- Click on the 'Home' tab
- Click on one course
- Click on 'Enroll-me' button



The screenshot shows the 'Teachers Go Digital' website with a banner featuring children smiling. The page title is 'Teachers Go Digital' and the subtitle is 'INTEGRATING MOBILE LEARNING AND UPGRADING TEACHERS' DIGITAL SKILLS...'. The navigation bar includes links for Home, Courses, ITALIAN, Progettazione del Sito Web, Enrol me in this course, and Enrolment options. The main content area is titled 'Enrolment options' and shows a course titled 'Progettazione del Sito Web'. Below it, under 'Self enrolment (Student)', there is a note 'No enrolment key required.' and a blue 'Enrol me' button. On the left, a sidebar titled 'Navigation' lists categories like Home, Dashboard, Site pages, My courses, More, Courses, ITALIAN, Progettazione del Sito Web, Sistema di Gestione dell'Apprendimento, Hardware Italian, Internet Italian, Strumenti e Applicazioni, Miscellaneous, ENGLISH, BULGARIAN, GREEK, and POLISH.

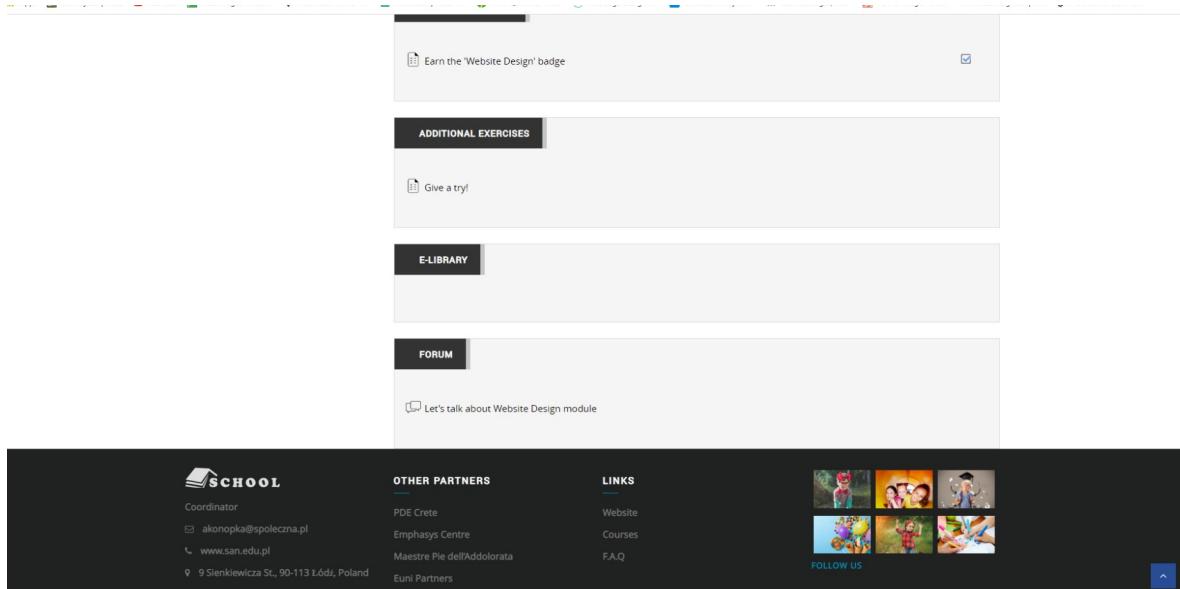
Figure 4: Enrollment

Note:

* The course enrolment is manual, which means that the learner can self-enroll.

STEP 5: HOW CAN I COMMUNICATE WITH OTHERS IN COURSE?

- Log in (Step 2)
- Click on “Home” tab
- Enter the course and scroll down
- Under the “Forum” section click on “Let's talk about ... module”



The screenshot shows the Go DIGITAL platform interface. At the top, there's a navigation bar with various links like 'Dashboard', 'Courses', 'ENGLISH', 'Website Design', 'FORUM', and 'Let's talk about Website Design module'. Below the navigation, there are several sections: 'ADDITIONAL EXERCISES' (with a link to 'Give a try!'), 'E-LIBRARY' (empty), and 'FORUM' (with a link to 'Let's talk about Website Design module'). At the bottom, there's a footer with sections for 'SCHOOL' (Coordinator, email, address), 'OTHER PARTNERS' (PDE Crete, Emphasis Centre, Maestre Pie dell'Addolorata, Euni Partners), 'LINKS' (Website, Courses, F.A.Q.), and social media links ('FOLLOW US' with icons for YouTube, Facebook, and Twitter).

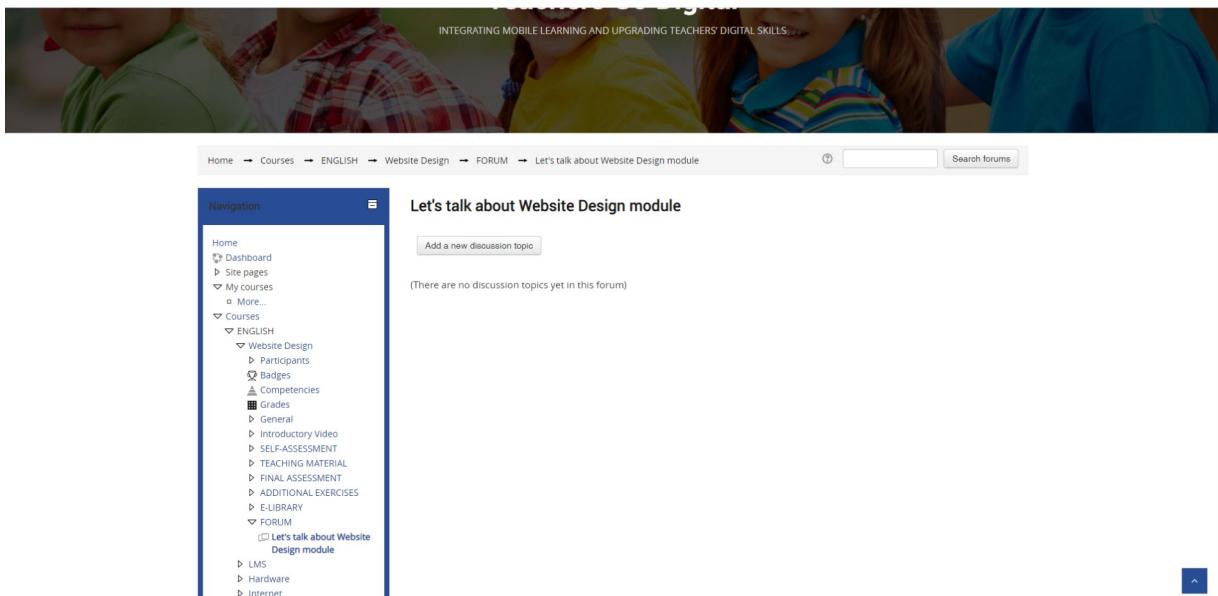
Figure 5: Forum

Note:

* Click on “Add a new discussion topic” to open a new forum topic

OR

*Enter/Reply to an existing one



This screenshot shows the 'Let's talk about Website Design module' forum page. The left sidebar has a 'Navigation' menu with categories like 'Dashboard', 'Site pages', 'My courses', 'Courses', 'ENGLISH', 'Website Design', 'Badges', 'Competencies', 'Grades', 'General', 'Introductory Video', 'SELF-ASSESSMENT', 'TEACHING MATERIAL', 'FINAL ASSESSMENT', 'ADDITIONAL EXERCISES', 'E-LIBRARY', 'FORUM', 'LMS', 'Hardware', and 'Internet'. The main content area is titled 'Let's talk about Website Design module' and contains a button labeled 'Add a new discussion topic'. A message below the button says '(There are no discussion topics yet in this forum)'. At the top of the page, there's a banner with the text 'INTEGRATING MOBILE LEARNING AND UPGRADING TEACHERS' DIGITAL SKILLS'.

Figure 5: Forum

STEP 6: HOW DO I COMPLETE A COURSE? and earn the badge

- Log in (Step 2)
- Click on “Home” tab
- Enter a course
- Click on “Introductory Video“ with a short video created for each module (optional)
- Click on “Self-Assessment” to test your current knowledge
- Click on Teaching material on each .pdf file with introductory text, syllabus, topics and bibliography
- Click on “Final-Assessment” to test your knowledge after reading the content and to earn the badge
- Click on “Additional resources“ for additional tests/quizzes (optional)

Note:

* Self-Assessment: You have two attempts only!

*Teaching material: By clicking on the pdf, the file is open and ready to save/print it

*Final-Assessment: You have one attempt only and when you get a score with 85% you will earn the badge. Once you successfully passed all the modules badges you will earn the GODIGITAL Super Badge!

STEP 7: HOW DO I CHECK MY PROFILE PAGE?

- Log in (Step 2)
- Click on the button with your name on the upper right corner
- Click on the “Profile”
- Edit your personal info while you can see your badges you earned and enroled courses

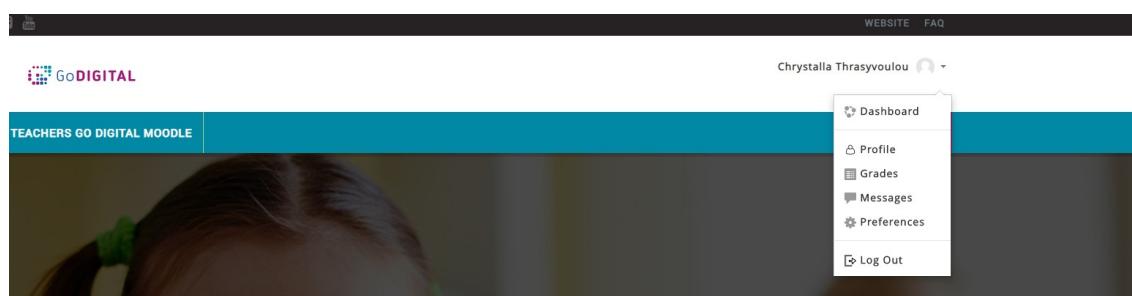
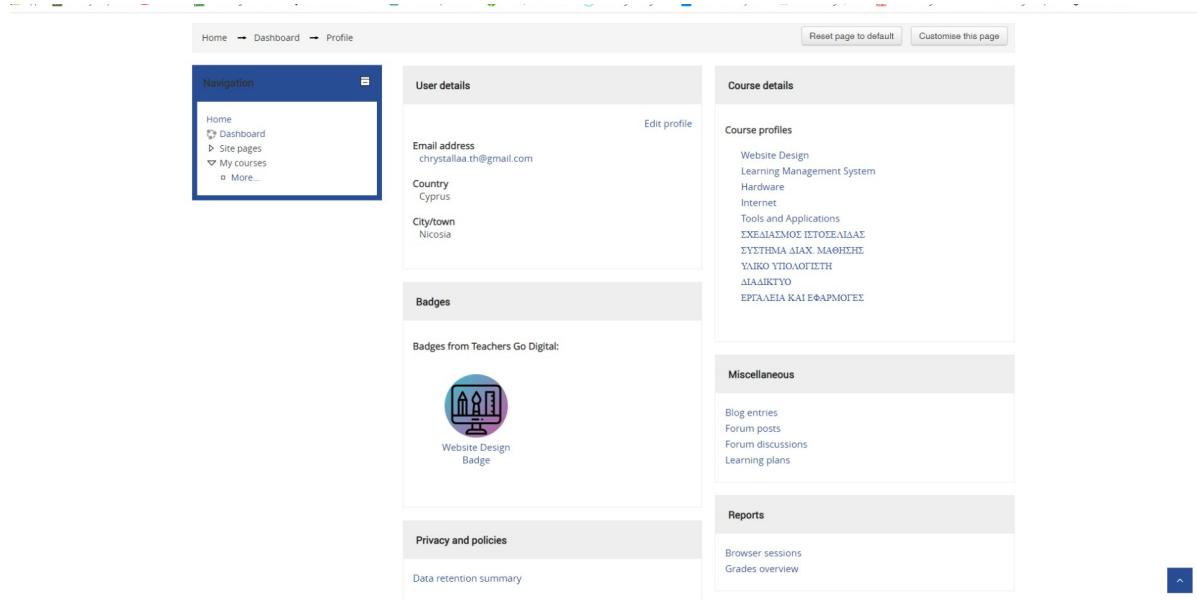


Figure 6: Edit Profile



The screenshot shows the 'Edit Profile' page of the Go DIGITAL platform. The top navigation bar includes 'Home', 'Dashboard', and 'Profile'. On the right, there are buttons for 'Reset page to default' and 'Customise this page'. The main content area is divided into several sections:

- User details:** Includes fields for 'Email address' (chrystallaa.th@gmail.com), 'Country' (Cyprus), and 'City/town' (Nicosia). An 'Edit profile' button is located in the top right of this section.
- Course details:** Lists course profiles: Website Design, Learning Management System, Hardware, Internet, Tools and Applications, ΣΧΕΔΙΑΣΜΟΣ ΙΣΤΟΣΕΛΙΔΑΣ, ΣΥΣΤΗΜΑ ΑΙΑΧ. ΜΑΘΗΣΗΣ, ΥΛΙΚΟ ΥΠΟΓΡΑΦΗΣΗΣ, ΔΙΑΔΙΚΤΥΟ, and ΕΡΓΑΛΕΙΑ ΚΑΙ ΕΦΑΡΜΟΓΕΣ.
- Badges:** Shows a badge for 'Website Design' from 'Teachers Go Digital'.
- Miscellaneous:** Includes links for 'Blog entries', 'Forum posts', 'Forum discussions', and 'Learning plans'.
- Reports:** Includes links for 'Browser sessions' and 'Grades overview'.
- Navigation sidebar:** Shows 'Home', 'Dashboard', 'Site pages', 'My courses', and 'More...'.
- Footer:** Includes a 'Data retention summary' link.

Figure 7: Edit Profile

8. Learning modules & Portfolios

This chapter contain full content of the training divided by modules. In the cover page of each module you have at your disposal the syllabus describing shortly the content, schedule, methods and outcomes . Having this knowledge you can project enhancement of your digital skills.

8.1 Module 1 – Internet

Document Title:	O3– Learning content: text version
Intellectual Output:	IO3 Learning content: text version
Author Partner(s):	P2-REGIONAL DIRECTORATE OF PRIMARY AND SECONDARY EDUCATION OF CRETE (GR)
Date of Issue:	
Status:	Teaching material
Date of Delivery:	
Number of Pages:	
Contributors to document:	GoDigital project consortium
Quality Reviewer (if any):	GoDigital project consortium
Confidentiality Status:	GoDigital partners

1 – Syllabus

Module 1: Internet	
A module description	This module provides information, knowledge and experience on effective and safe internet use for educational purposes by familiarizing learners with information search, selection and management's tools and strategies, either on an individual or in a collaborative basis. It is expected to help the learners to be and keep informed about the most often used search engines and will familiarize them with searching techniques appropriate to support critical information selection. It will also provide them with data management skills (individual or

	collaborative data creation, storing and sharing data/resources, collaborating and interacting with other users e.t.c.) and knowledge and strategies that both prevent and ensure the safe navigation on the net.
Intended learning outcomes¹	<ul style="list-style-type: none"> ● Get to know how to avoid “bad” sites ● Introduction to malware – Get to know how to avoid it ● Get to know how to remove malware ● Get to know how to secure Internet accounts ● To be able to use Internet ● To effectively search information in Internet ● To comprehend the usefulness of Web 2.0 tools and be able to effectively use them according to our particular needs ● Get to know how to upload, store and organize the data collected in the cloud (Google Drive) ● Get to know how to share the data collected in the cloud (Google Drive) ● Learn about Google Documents’ User Permissions ● Get to know how to create and share a Google Document ● Get to know how to create and share a Google Form ● Get some ideas on how to use pedagogically the possibilities of Google Drive
Learning activities	<ul style="list-style-type: none"> ● watching 1 presentation video and 4 additional videos ● exploring 1 obligatory and 4 optional reading material ● doing 20 exercises
Estimated duration	<p>Total workload is going to be estimated on completion of the material:</p> <ul style="list-style-type: none"> ● 37 minutes for watching videos ● 150 minutes for exploring obligatory reading material ● 20 minutes for exercises

2 – Learning content

2.1 Introductory text

2.1.1 Topic 1 - Security/safety on the net

Internet security (safety) is a very important issue. The Internet is primarily a society of people and conceals the same dangers that every society conceals, especially when it facilitates the way people communicate with each other.

The Internet user and especially the teacher should be able to distinguish, avoid and also address any potential risk of the Internet.

Here are briefly outlined and described some of the basic knowledge and skills a teacher is required to have in order to protect himself/herself and his/her students from possible online hazards.

¹ Intended learning outcomes address what a learner should be able to do after engaging this module. Use one verb (or at most two) for each outcome. (**Cf. curriculum and make amendments you find necessary**)

All the above will be presented in the following sub-topics (see expanded text):



- How to avoid “bad” sites
- Introduction to malware – How to avoid
- How to remove malware
- Securing internet accounts

Examples of inspiring explainer videos

Title of a video	The Dangers of the Internet
A Video Description	It explains the basic dangers of the internet providing interesting statistics as well
Link	https://www.youtube.com/watch?v=uquRzrcwA18
Title of a video	Internet Danger, How To Use Internet Safely
A Video Description	Animation video: it teaches how to use internet safely
Link	https://www.youtube.com/watch?v=500T--2nf40
Title of a video	Malware: Difference Between Computer Viruses, Worms and Trojans
A Video Description	It explains what someone needs to know about malware
Link	https://www.youtube.com/watch?v=n8mbzU0X2nQ

2.1.2 Topic 2 - Internet and Information Searching

Internet can be a rich source of information. The collection of the appropriate digital information (webpages, images, videos) can enhance the multifaceted approach of a subject and help students develop their critical competence and thinking.

The information problem solving process, which requires finding and using information, is a complex cognitive process, since it encompasses the coordination of searching, finding, evaluating and using the most useful, appropriate and valid information in an effective way. The Internet is an integral part of this process, since it provides relatively easy and quick access to information. Typically, searching for information on the Internet is being achieved by using a search engine.

The most important feature of a search engine that makes it a cognitive tool is the opportunities it offers for complex type searches based on Boolean logic.

In this context, the user can not only ask questions on the subject he is looking for, but can also put restrictions and think critically on his research subject. In order for the teacher to guide his/her students towards a cognitive process and the critical choice of information it is necessary to know both the available media options (search engines) and the search techniques that can direct or restrict/refine the search of the information.

This topic will engage the learners in getting acquainted with the most used search engines. It will also support the learners to understand that the most important feature of a search engine that makes it a cognitive tool is the service it offers for complex type searches based on Boolean logic. They will learn how to organize their search on the internet (i.e. find the right keywords, create targeted searches), how to use some search engines in general, how to formulate questions - requests in databases and how to evaluate the results.

Examples of inspiring explainer videos

Title of a video	Simple Google Search tips
A Video Description	Learn about three easy ways to get better results for your Google searches.
Link	https://www.youtube.com/watch?v=oIMTM168BK8
Title of a video	Filter and refine your Google Search results
A Video	Learn how to use filters to narrow down your search results and find exactly

Description	what you're looking for.
Link	https://www.youtube.com/watch?v=ne8De4m_SbE

2.1.3 Topic 3 - The Web 2.0

The Web 2.0 is the “present” of World Wide Web offering various useful features to its users. These features include online file storage, collaborative file processing, access from everywhere, software usage without the need of local computer installation, embed collaborative work to other web sites etc. All these features are discussed in this topic giving several representative examples.

Title of a video	Web 2.0 A Quick Introduction
A Video Description	It gives a very quick introduction to Web 2.0. It provides a definition, characteristics, and examples.
Link	https://www.youtube.com/watch?v=fJe8V0TMrXQ

2.1.4 Topic 4 - Info management - Google Drive

Several online applications provide information storage and sharing and some of them offer opportunities for collaboration and co-creation of documents. Although not created for education, they can be used in multiple ways in teaching.

Web applications provide the possibility for storage and sharing information and some of them offer the opportunity for collaboration and documents' co-creation. Although not created for education, they can be used in multiple ways by teachers.

Google Drive is a representative example of an internet application, suitable for information management. It is an online storage space, a cloud. Through this, documents can be sent to or shared with other users. One more important feature is the creation of shared documents, spreadsheets, presentations, tests and questionnaires.

As one of Google applications it is free and as it works on-line. No installation or upgrading is required. So there is no worry about application compatibility problems on different computers. It is simply required a registration, which is free of charge, to obtain a Google Account.

It works collaboratively. People can work on the same document at the same time with other users, who have been given the respective rights. In addition, the system keeps a change log, so we can keep track of the progress of the documents and evaluate the contribution of each member of the authoring team. In fact, is a representative example of a digital universal tool that offers alternatives for pedagogical and teaching use in collaborative learning.

It can be used by teachers or students and improve the learning process by offering direct or indirect learning outcomes, as well as contribute to the better organization of everyday instructional practice.

It is especially useful for a teacher to have his/her online hardware stored and access it at any time, to make use of the opportunities of the shared document for collaboration and co-formation. Finally, it's been given him/her the possibility to create tests and questionnaires, conduct surveys, collect, organize, manage and present data. Students can also create shared documents on Google Drive and process them together for a project assigned to them. This promotes collaborative learning. In addition, the teacher can monitor the procedure of the creation and the contribution of each student through the background of the revisions that may occur, as well as to participate with his own observations.

This topic aims to help learners familiarize themselves on how to open a google account, upload and store documents in Google Drive, share data by giving editing, monitoring or commenting reading rights, create and manage collaborative documents and presentations, create, manage and utilize Google forms for designing questionnaires, collecting and presenting data and online research results or online tests. The above will be parts of separate sub-topics that will be analyzed subsequently, namely:

- Create a Google Account and get acquainted with the most basic Google Apps
- Uploading, storing and organizing data in the cloud (Google Drive)
- Creating, managing, sharing, giving user permissions and cooperating in shared docs and presentations
- Creating, managing, sharing, giving user permissions and cooperating in shared Google forms. Receiving the incoming data.
- Reviews' history monitoring
- Possibilities for pedagogical uses of Google Drive

Examples of inspiring explainer videos

Title of a video	How to Use Google Drive Beginners Tutorial
-------------------------	---

A Video Description	How to Use Google Drive: It explains and shows how to set up your account, sharing, tagging, leaving comments, creating folders, Docs, and Sheets.
Link	https://www.youtube.com/watch?v=cCZj5ojxRAA

2.2 Expanded text

2.2.1 TOPIC 1: INTERNET SAFETY

Internet could be compared to the ocean. The ocean can be a very dangerous place: people can be lost or drowned by trying to enjoy the sea or explore its enchanting immensity. But the mother in the photograph does not forbid her children's contact with the sea. Instead, she keeps them in touch with her and teaches them to enjoy it by explaining some rules for safe "use" of the sea. In the beginning she stands next to them and advises them so they gradually acquire autonomy and can themselves enjoy the sea later on.



This is how we should think about the use of the Internet. We need to identify the potential dangers of widespread Internet and acquire knowledge and ways to avoid all possible risks. It is then necessary to introduce young students to the adoption of good practices in relation to the safe use of the Internet.

Risks on the Internet are of many kinds. We outline ten (10) of the most important risks:

1. Internet addiction and alienation of users from the real world
2. Inappropriate and offensive website content
3. Unwanted messages (spam)
4. Internet bullying
5. Electronic seduction of users - Reporting on child pornography, online gambling, violent games and other harmful behaviors
6. Violation of user privacy
7. Misinformation disseminated on the Internet (false news, urban myths, digital pranks)
8. Interception of personal data through "phishing" and "pharming"
9. Malicious software that infects PCs
10. Physical conditions resulting from prolonged use of computers

We consider that nowadays, the theoretical knowledge of the above is not enough for a teacher. It requires familiarity and practical knowledge. For this reason, some technical issues will be developed in the following paragraphs, so that users and teachers in particular can be susceptible to, but also react to, possible online risks being able to protect and educate their students accordingly from an early age.

2.1.1 How to avoid bad sites

Before we begin to introduce ways to avoid "bad" web sites, we have to answer the question: what is considered as a "bad" site? A "bad" site is generally considered to be any website containing material that falls under categories 1 to 8 presented in the introduction above.



Some of the ways to avoid these kinds of websites are the following:

- **Use Internet filters**

There are many Internet filters that someone can buy or download that will prohibit him/her or members of his/her family from opening any questionable sites. These filters work by preventing user access to sites that are deemed questionable safety-wise, or that present inappropriate or NSFW (not safe for work) content. Many parents use these filters to make sure that their kids are only using sites that are age-appropriate, but people of all ages, as well as teachers, can use them to make sure that their web searches are always safe.

- **Take advantage of search engines' built-in filters**

Many search engines give Internet users the option of choosing a "safer" search when using their services. For example, Google offers "safe search filtering". This goes for all image and video searches, as well as news and general search content.

- **Don't guess the address of a Web site**

This is probably the number one way that people get into trouble. There are many sites that use similar Web addresses as legitimately safe websites so that when people try to remember which site to go to, they end up visiting the wrong site accidentally.

- **Never click on sites that seem questionable**

When someone is in doubt, he may not click. If the site description, title, or URL seems in any way "off" to him/her, he/she may find another site that is more reputable, especially when using that site in a research capacity.

2.1.2 Introduction to malware – How to avoid

Risk number 9 in the introduction talks about malware. Malware is a term that is used for malicious software that is designed to do damage or unwanted actions to a

computer system. Examples of malware include the following: Viruses, worms, trojan horses, spyware and rogue security software.



Here is a brief description of each of these types of malicious software so that the teacher is familiar with the terminology and especially with the way each of these software works.

- **Computer viruses**

A computer virus is a small software program that spreads from one computer to another and interferes with computer operation. A computer virus might corrupt or delete data on a computer, use an email program to spread the virus to other computers, or even delete everything on the hard disk.

Computer viruses are frequently spread by attachments in email messages or by instant messaging messages. Therefore, the user must never open an email attachment unless he/she knows who sent the message. Viruses can be disguised as attachments of funny images, greeting cards, or audio and video files. Computer viruses also spread through download on the Internet. They can be hidden in pirated software or in other files or programs that someone might download.

- **Computer worms**

A worm is computer code that spreads without user interaction. Most worms begin as email attachments that infect a computer when they're opened. The worm scans the infected computer for files, such as address books or temporary webpages, that contain email addresses. The worm uses the addresses to send infected email messages, and frequently mimics (or spoofs) the "From" addresses in later email messages so that those infected messages seem to be from someone you know. Worms then spread automatically through email messages, networks, or operating system vulnerabilities, frequently overwhelming those systems before the cause is known. Worms aren't always destructive to computers, but they usually cause computer and network performance and stability problems.

- **Trojan horses**

A Trojan horse is a malicious software program that hides inside other programs. It enters a computer hidden inside a legitimate program, such as a screen saver. Then it puts code into the operating system that enables a hacker to access the infected computer. Trojan horses do not usually spread by themselves. They are spread by viruses, worms, or downloaded software.

- **Spyware**

Spyware can install on a computer without the users' knowledge. These programs can change the computer's configuration or collect advertising data and personal information. Spyware can track Internet search habits and can also redirect the web browser to a different website than the one the user intends to go to.

- **Rogue security software**

A rogue security software program tries to make the user think that his/her computer is infected by a virus and usually prompts him/her to download or buy a product that removes the virus. The names of these products frequently contain words like Antivirus, Shield, Security, Protection, or Fixer. This makes them sound legitimate. They frequently run right after someone download them, or the next time that the computer starts. Rogue security software can prevent applications, such as Internet Explorer, from opening. Rogue security software might also display legitimate and important Windows files as infections.

In order to avoid all these kinds of malware the user should become familiar with some techniques such as:

- Install quality antivirus programs
- Install real-time anti-spyware protection
- Keep anti-malware applications current
- Perform daily scans
- Disable auto run
- Disable image previews in Outlook
- Avoid clicking on e-mail links or attachments
- Surf smart
- Use a hardware-based firewall
- Deploy DNS protection

However malware can be prevented with just smart online behavior. The single biggest factor in preventing a malware infection on a PC is the user himself/herself. PC users don't need expert knowledge or special training. They just need vigilance to avoid downloading and installing anything they do not understand or trust, no matter how tempting, from the following sources:

- **From a website:** If you are unsure, leave the site and research the software you are being asked to install. If it is OK, you can always come back to site and install it. If it is not OK, you will avoid a malware headache.
- **From e-mail:** Do not trust anything associated with a spam e-mail. Approach e-mail from people you know with caution when the message contains links or

attachments. If you are suspicious of what you are being asked to view or install, don't do it.

- **From physical media:** Your friends, family, and associates may unknowingly give you a disc or flash drive with an infected file on it. Don't blindly accept these files; scan them with security software. If you are still unsure, do not accept the files.
- **From a pop-up window:** Some pop-up windows or boxes will attempt to corner you into downloading software or accepting a free "system scan" of some type. Often these pop-ups will employ scare tactics to make you believe you need what they are offering in order to be safe. Close the pop-up without clicking anything inside it (including the X in the corner). Close the window via Windows Task Manager (press Ctrl-Alt-Delete).
- **From another piece of software:** Some programs attempt to install malware as a part of their own installation process. When installing software, pay close attention to the message boxes before clicking Next, OK, or I Agree. Scan the user agreement for anything that suggests malware may be a part of the installation. If you are unsure, cancel the installation, check up on the program, and run the installation again if you determine it is safe.
- **From illegal file-sharing services:** You're on your own if you enter this realm. There is little quality control in the world of illegal software, and it is easy for an attacker to name a piece of malware after a popular movie, album, or program to tempt you into downloading it.

2.1.3. How to remove malware

If someone suspects malware—or he/she just wants to be careful— there are a few steps he/she should take.



a Back up all files and other data

Files and data are critical. Therefore the moment someone realizes his/her computer is malware-infected, he/she must back up all the files and other data, before the malware gets to those files and other data and corrupts them. Moreover, such backing up will help get back on track quickly.

b Disconnect from the Internet

Next best thing is to disconnect the PC from the internet to prevent further damage, since the internet is the breeding place for malware. And every moment the user stays connected with it, especially after a malware infection, is going to worsen his/her situation.

c Scan computer in safe mode

Switch to safe mode and scan the computer. Without getting too technical, safe mode is a restricted mode which allows only healthy applications to run thereby reducing the risk of malware spreading to other parts of the PC. At best, such a cleanup can improve the PC performance. Another simple but effective measure would be to clean up the temporary and download files.

d Use malware removal tool

If there isn't already one, download a legitimate anti-malware program. Next, install and run it. Programs like these are designed to search out and eliminate any malware on a device.

Once the device is clean, it's a good idea to change the passwords, not only for the PC or mobile device, but also for email, for social media accounts, for favorite shopping sites, and for online banking and billing centers.

Removing malware is neither an easy task nor an attractive one. Therefore it's best to let experts handle the situation if someone thinks he/she cannot solve the problem by himself/herself.

2.1.4 Securing Internet accounts

Passwords are like keys to our personal home online. We should do everything we can prevent people from gaining access to our password. We can further secure our accounts by using additional authentication methods. Some main tips are:

- Close the accounts that you are not using for a long time
- Create a strong password (i.e. make your password a sentence)
- Unique account – unique password
- Write it down and keep it safe
- Change your passwords regularly
- Lock down login (strong authentication)
- Check your account activity
- Keep your software updated
- Specify your trusted contacts



More ideas about Internet safety can be found in the additional literature proposed.

References

- <https://www.lifewire.com/avoid-dangerous-websites-3481594>
- <https://support.microsoft.com/uz-latn-uz/help/129972/how-to-prevent-and-remove-viruses-and-other-malware>
- <https://www.malwarebytes.com/malware/>
- <https://antivirus.comodo.com/security/how-to-get-rid-of-malware.php>
- <https://www.wikihow.com/Keep-Online-Accounts-Secure>
- <https://www.bullguard.com/bullguard-security-center/internet-security/security-tips/safe-online-accounts.aspx>
- <https://www.pcworld.com/article/210891/malware.html>

2.2 TOPIC 2: INTERNET AND INFORMATION SEARCHING

2.2.1 Introduction to Internet

Internet is a reality that has been established in our lives in the relatively recent years. In this section several introductory concepts of internet are discussed.

a What is Internet

Internet as word comes from the words **Interconnected Network**. Thus, it etymologically means that it is a network of networks, that is many smaller networks connected with each other creating a bigger one, the Internet. In other words every computer or other device (e.g. printer, mobile phone, tablets and lately televisions, air conditions, watches etc) connected to Internet is essentially part of it. The connection is established wirelessly (i.e. through antennas and satellites) or wired (e.g. through the telephone network). Internet started as military project in USA in 1960s.

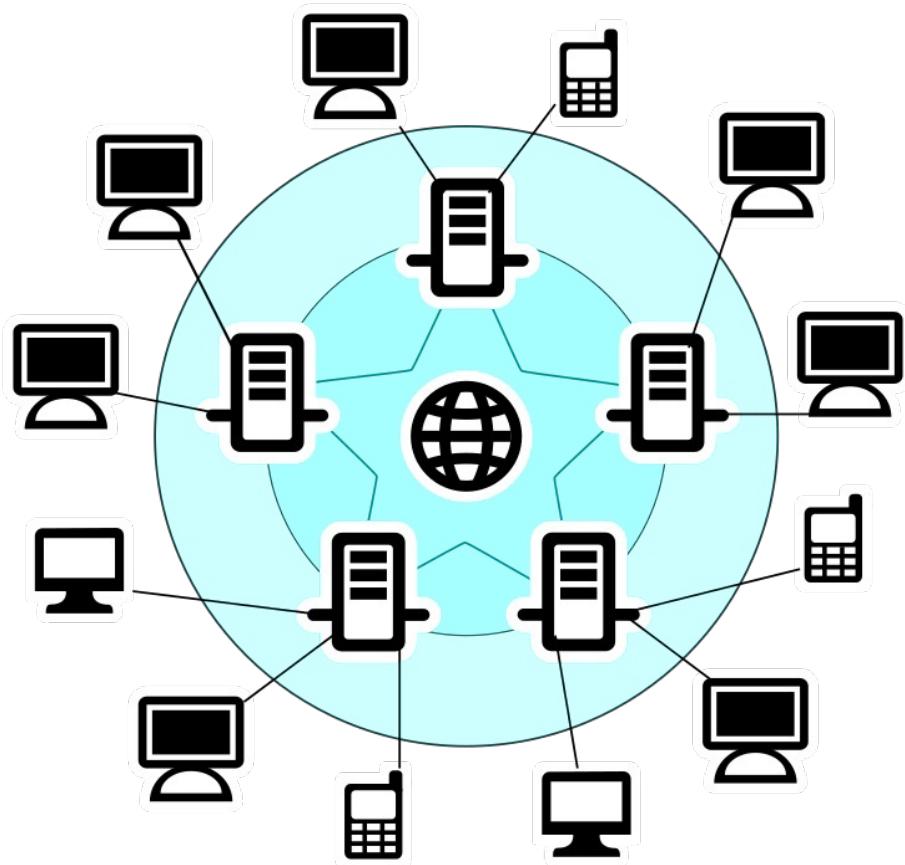


Figure 1. Internet is a big network consisting of smaller networks and devices connected to each other.

b Internet services

Internet offers various services such as World Wide Web (the web pages), Communication services (Electronic Mail, Telnet, VoIP, etc.), FTP (File Transfer Protocol) and IRC (Internet Relay Chat).

It is important to point out that World Wide Web is just a service of Internet. Since though, it has ended up to be the dominant service and many applications have been developed on it to accommodate other services (e.g. E-mail and FTP), many people erroneously perceive World Wide Web as identical to Internet.

c Web pages in World Wide Web

The World Wide Web was invented by Tim Berners Lee in 1989 and consists of documents and other files (e.g. images and videos) linked to each other through hyperlinks. These documents and files are located in computers connected to Internet. The web pages are documents written in a specific format based on the Hypertext Markup Language (HTML). The very first webpage was published to the general public in August 1991.

To view a web page we need a special computer program that is called web browser and the web address of the web page. The browser uses this address to locate it. Examples of web browsers are Mozilla Firefox, Google Chrome, Opera, Safari and Edge.

d Addresses in World Wide Web

The address of a web page or file in World Wide Web, which you can also see it referred as URL (Uniform Resource Locator), has the following format:

http://www.sitename.extension

Http is a protocol which sometimes you can see it as *https* (the *s* for secure). We can omit *http://* and the web browser understands that the *http* protocol should be used.

The next part is *www* and sometimes can be omitted too if the website administrator has done the appropriate setting.

The part *sitename.extension* is called domain name. The extension is a standard word called Top-Level-Domain (TLD) that declares - but not necessarily - the type or the geographic location of the web site. For example *com* extension is for commercial, *org* for organization, *but* for Bulgaria, *cy* for Cyprus, *gr* for Greece, *it* for Italy, *pl* for Poland etc. You can view a full list of the available TLDs at <https://www.icann.org/resources/pages/tlds-2012-02-25-en>

The sitename is a name selected by the website owner and registered to an official organization (different in each country) under a specific TLD. Notice that *sitename.com* is different than *sitename.org* and lead to different web sites. Nevertheless, if the web site holder has registered both domains then he can drive both domains to the same web site.

e E-mail Addresses

Electronic Mail or e-mail is the internet service with we can exchange electronic letters. Someone to send a message to another person using e-mail should have an e-mail address and send it to another e-mail address, the address of the receiver.

The format of an e-mail address is

user_selected_name@email_provider.extension

The part *user_selected_name* is the part that the user chooses. It may be a nickname or his/her name/surname and is always followed by @ character which is pronounced "at".

The part *email_provider.extension* is called domain. The extension is a TLD (recall from paragraph about Addresses in World Wide Web).

It is important to notice that two email addresses that have the same *user_selected_name* is completely different if they are at a different domain. For example johnsmith@hotmail.com is a completely different address to johnsmith@gmail.com

Notice also that *johnsmith.hotmail.com* is a web page address and not e-mail address. An email address should always contain the @ character.

f Information searching

World Wide Web is an ocean of information. Everyone can publish information in various forms i.e. text, images, videos, maps etc. The huge amount of the published information and the fact that there is no control in its validity creates correspondingly the challenges of how to effectively search information on the web and how to ensure that the discovered information is valid and not fake or inaccurate.

g What is a Web Search Engine

A web search engine is an ally of us to confront the challenge of effective information search on World Wide Web. In its back end is a computer program consisting of complicated algorithms that preserves a database with details about the content of the web pages. The front end is a web form through which the user can enter the keywords or phrases the user wants to search. The search engine searches these keywords and phrases in its database and creates a ranking based on the relevancy of the results. The results are presented to the user in a paged form. Figure 2 is a screenshot with the results of a search in Google's search engine having used the keywords *teachers godigital*.

Google teachers godigital

All News Images Shopping Videos More Settings Tools Explicit results filtered with SafeSearch. [Learn more](#) Undo

About 336,000 results (0.45 seconds)

Project – Teachers GoDigital
teachersgodigital.eu/project/ ▾
 The 2016 'Digital Skills and Jobs Coalition' announced as part of the ten key initiatives proposed, reinforces the need of all to help meet the high demand for ...

Teachers GoDigital – INTEGRATING MOBILE LEARNING AND ...
teachersgodigital.eu/ ▾
 The need to continuously upgrade teachers' digital skills, is evident and essential in order to ensure that are competent to best explore the potential of using ...

Contact us – Teachers GoDigital
teachersgodigital.eu/contact-us/ ▾
 Our Address: Ul. Stenkiewicza 9 90113 Warsaw, Poland Tel: +42426642278. Website: <https://san.edu.pl/> Email: mkedzia@spoleczna.pl. Search for: This project ...

Teachers go digital to save precious time - Independent Education ...
<https://ie-today.co.uk/Article/teachers-go-digital-to-save-precious-time/> ▾
 Oct 22, 2018 - A recent YouGov survey by an education charity revealed that 75% of UK teachers are reporting symptoms of stress. It is common knowledge ...

Helping Teachers Go Digital – Friday Institute for Educational Innovation
<https://www.fi.ncsu.edu/news/helping-teachers-go-digital/> ▾
 Jul 12, 2009 - Helping Teachers Go Digital: New Literacies Teacher Leader Institute Provides Support for Innovative and Creative Teaching ...

New Literacies Teacher Leader Institute Inspires Teachers To Go Digital
<https://www.fi.ncsu.edu/.../new-literacies-teacher-leader-institute-inspires-teachers-to-g...> ▾
 Jul 18, 2009 - July 18, 2009 - The New Literacies Teacher Leader Institute was held at the Friday Institute from July 12 - 17, 2009. The weeklong institute ...

To Stem Teacher Burnout, Go Digital - Educational Leadership - ASCD
www.ascd.org/publications/educational.../To-Stem-Teacher-Burnout-Go-Digital.aspx ▾
 Teachers spend their days with anywhere from 30 students at the elementary level to 160 at the secondary level. They plan and deliver lessons, design projects, ...

New Lisbon teachers go digital to teach reading | Regional news ...
https://www.wisconsin.com/.../teachers-go-digital.../article_7ec3c1a7-1550-5c5b-9459-... ▾
 Jan 17, 2018 - Fifth graders in the New Lisbon school district have an innovative curriculum on offer when it comes to reading.

High school teacher shortage forcing schools to go digital | Fox Business
<https://www.foxbusiness.com/.../high-school-teacher-shortage-forcing-schools-to-go-dig...> ▾
 Oct 25, 2018 - Teacher shortages across the country are getting so dire that they're forcing some school districts to live stream lessons, replacing educators in ...

To Stem Teacher Burnout, Go Digital - Educational Leadership
www.educationalleadership-digital.com/.../MobilePagedArticle.action?articleId... ▾
 Meanwhile, the traditional teacher-led, teacher-paced approach to instruction does not afford teachers time to do much beyond delivering lessons during the ...

Goooooooooooooole >
 1 2 3 4 5 6 7 8 9 10 Next

© Santa Clara County, California - From your Internet address - Use precise location - Learn more
[Help](#) [Send feedback](#) [Privacy](#) [Terms](#)

Figure 2: The results of the search with keywords *teachers godigital* in Google search engine.

h 2 Web Search Engine categories

We can distinguish the following categories of web search engines:

- **General Purpose Search Engines**
- A general purpose search engine searches and retrieves information from every web page registered in its database. A web page is registered in the database either when the web site owner registers it by himself/herself or when a special computer program of the search engine (called crawler or bot) discovers a web page not already registered in its database. Examples of general purpose search engines are:

- 1.a www.google.com
- 1.b www.duckduckgo.com

- 1.c www.yandex.com
- 1.d www.bing.com
- 1.e www.yahoo.com
- 1.f www.ask.com
- 1.g www.aol.com
- 1.h www.baidu.com

- *Special Purpose Search Engines*

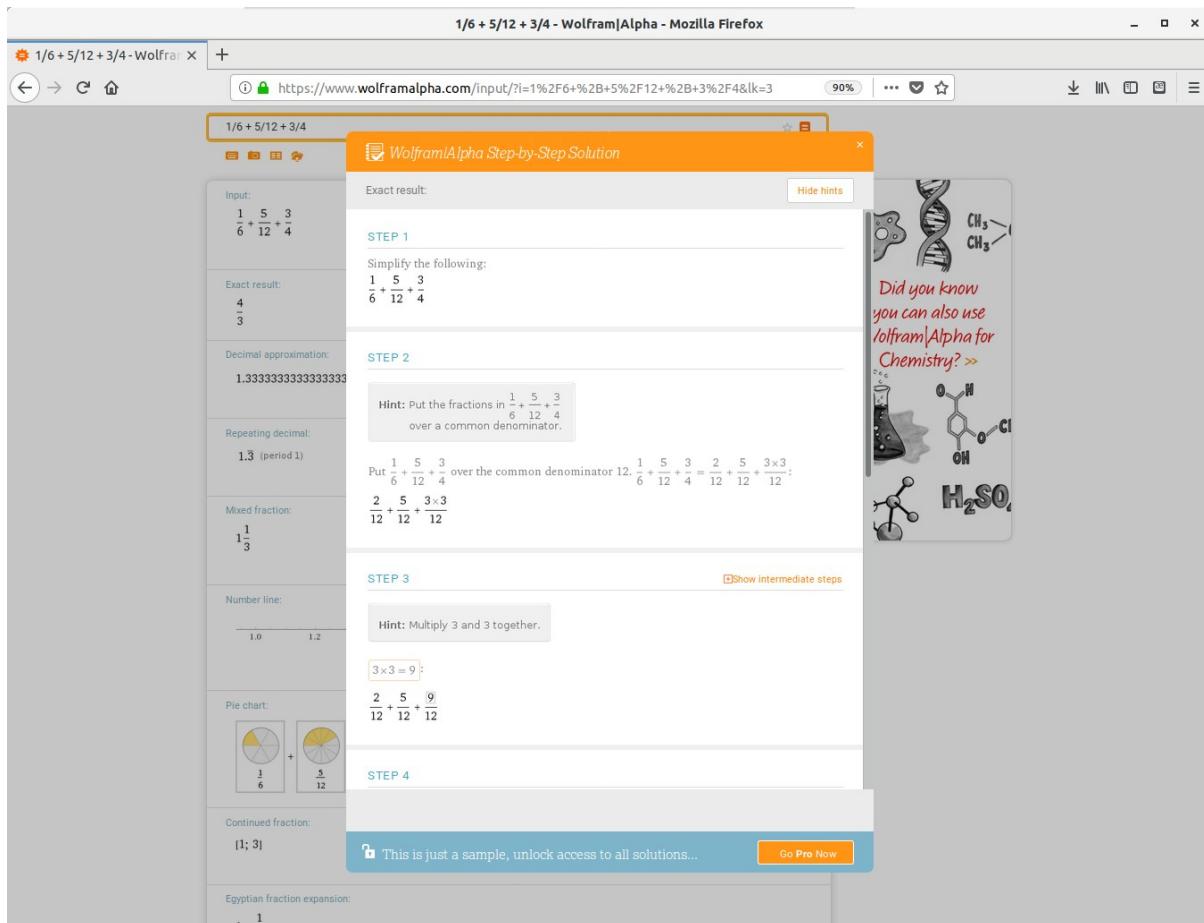
A special purpose search engine is a search engine for which there is a control of what content is stored in its database. An example is the search engine included in a particular website for example like wikipedia.com. Wikipedia.com is an online encyclopedia and therefore its content should be specific to the topics that an encyclopedia may contain. For example we will not find information regarding the weather prediction of the next day. On the other hand, a website for weather predictions has a search engine to search weather predictions for a specific area or historical data about the weather of that area.

- *Meta-Search Engines*

A meta-search engine is a search engine that collects search results from multiple search engines to present them to the user. For example, skyscanner.com is a meta-search engine which queries the search engines of travel companies, collects their answers and subsequently present them to the user.

- *Computational Knowledge Engines*

A computational knowledge engine does not present search results to the user like a search engine does, rather computes the answer of the user's search or retrieves the answer from selected sources. That can be very useful for educators and learners. Wolframalpha.com is such a computational knowledge engine. Figure 3 is the screenshot for the search of what is the step-by-step process for the math $1/6 + 5/12 + 3/4$, while Figure 4 is the screenshot of the search for the famous Greek writer Nikos Kazantzakis.



The screenshot shows the WolframAlpha.com interface for the search query $1/6 + 5/12 + 3/4$. The main area displays a step-by-step solution starting with simplifying the fractions over a common denominator (Step 1). It also includes visual representations like a number line and a pie chart. A sidebar on the right contains a 'Did you know' section about using WolframAlpha for chemistry, featuring illustrations of a DNA helix, chemical structures, and formulas like H_2SO_4 .

Figure 3: Search result of what is the step-by-step process for the math $1/6 + 5/12 + 3/4$ in Wolframalpha.com Computational Knowledge Engine.

i Simple searches

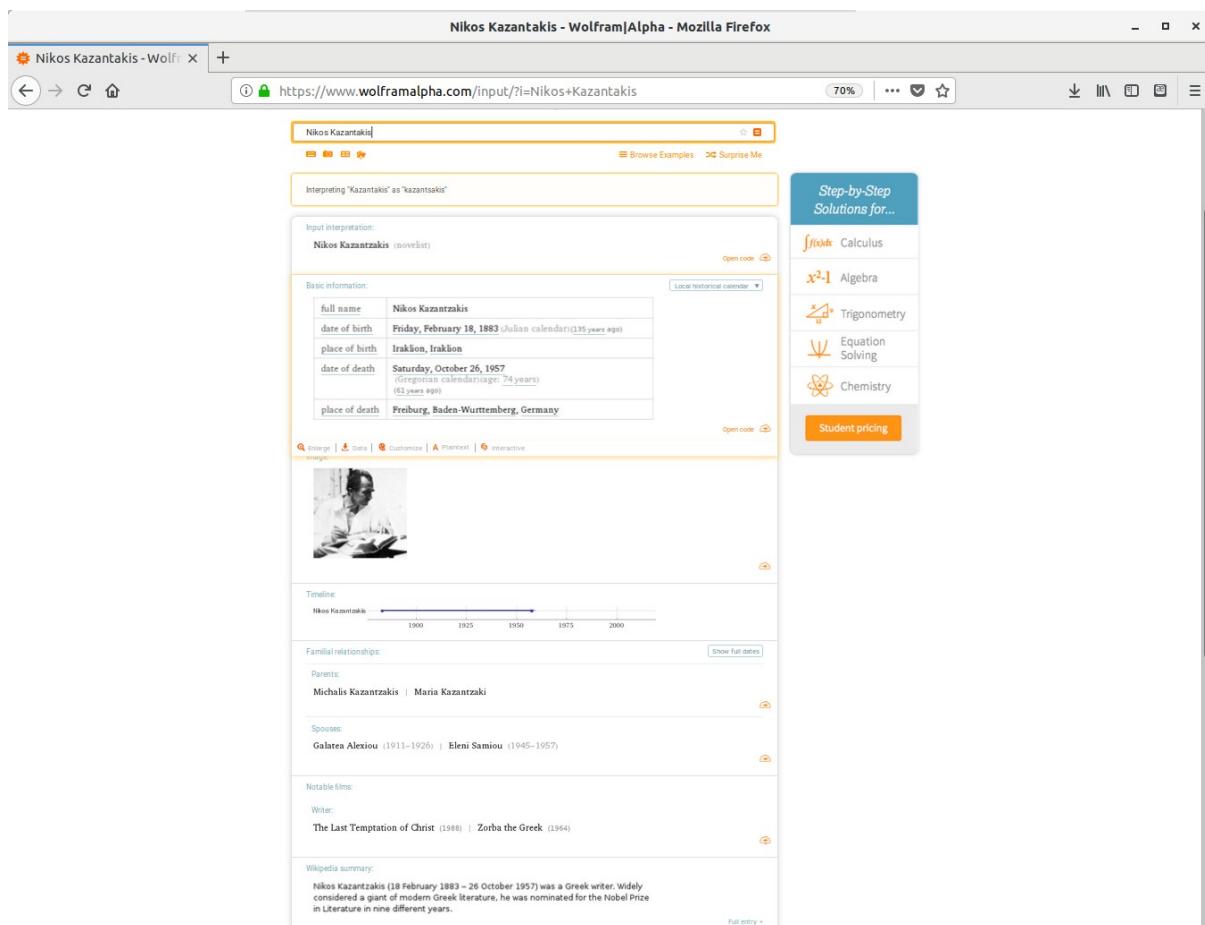
To see in practice how we can search information on the World Wide Web, let us suppose that we want to search information about the GoDigital Project, product of which is the present text.

The first step is to open a web browser (e.g. Mozilla Firefox or Google Chrome or Opera etc.) and in its address bar (see Figure 5) to insert the web address of the search engine we want to use (recall the addresses of a general purpose search engine we mentioned in 2.2.2.2 paragraph). Let us use the duckduckgo.com search engine. The cornerstone of the philosophy of duckduckgo.com search engine is that it does not track our searches and protects our personal data (more information you can find in duckduckgo.com/spread).

The second step is to insert the keywords to perform the search. In every web search engine there is a text box (usually in the center of the web page), where we insert the keywords of our search. It is very important to use the correct keywords in order to get the

most relevant results. For this search we will use the keywords “*godigital*” and “*project*” that later we will show that it is not the best choice. Screenshot of this search is shown in Figure 6 and its results in Figure 7.

We should also point out that instead of visiting the web page of the search engine to perform the desired search, we can alternatively insert the search keywords directly in the address bar of the browser (see Figure 9). The browser will use a predefined search engine (usually google.com) and redirect us in the web page of the results. The search engine that the browser by default uses can be changed from the Settings/Preferences section of the browser.



The screenshot shows the Mozilla Firefox browser window displaying the Wolfram|Alpha search results for "Nikos Kazantzakis". The search bar at the top contains the query "Nikos Kazantzakis". The main content area displays the following information:

- Input interpretation:** Nikos Kazantzakis (novelist)
- Basic information:**

full name	Nikos Kazantzakis
date of birth	Friday, February 18, 1883 (Julian calendar) (135 years ago)
place of birth	Iraklion, Iraklion
date of death	Saturday, October 26, 1957 (Gregorian calendar) (74 years ago) (63 years ago)
place of death	Freiburg, Baden-Württemberg, Germany
- Timeline:** A horizontal timeline showing the life span of Nikos Kazantzakis from 1900 to 2000.
- Familial relationships:** Parents: Michalis Kazantzakis | Maria Kazantzaki; Spouses: Galatea Alexiou (1911–1926) | Eleni Samiou (1945–1957).
- Notable films:** The Last Temptation of Christ (1988) | Zorba the Greek (1964).
- Writer:** Nikos Kazantzakis (18 February 1883 – 26 October 1957) was a Greek writer. Widely considered a giant of modern Greek literature, he was nominated for the Nobel Prize in Literature in nine different years.
- Wikipedia summary:** A brief summary of Nikos Kazantzakis's life and literary career.

A sidebar on the right titled "Step-by-Step Solutions for..." lists various subjects: Calculus, Algebra, Trigonometry, Equation Solving, and Chemistry, each with a small icon and a "Student pricing" button.

Figure 4: search for the famous Greek writer Nikos Kazantzakis in Wolframalpha.com Computational Knowledge Engine.

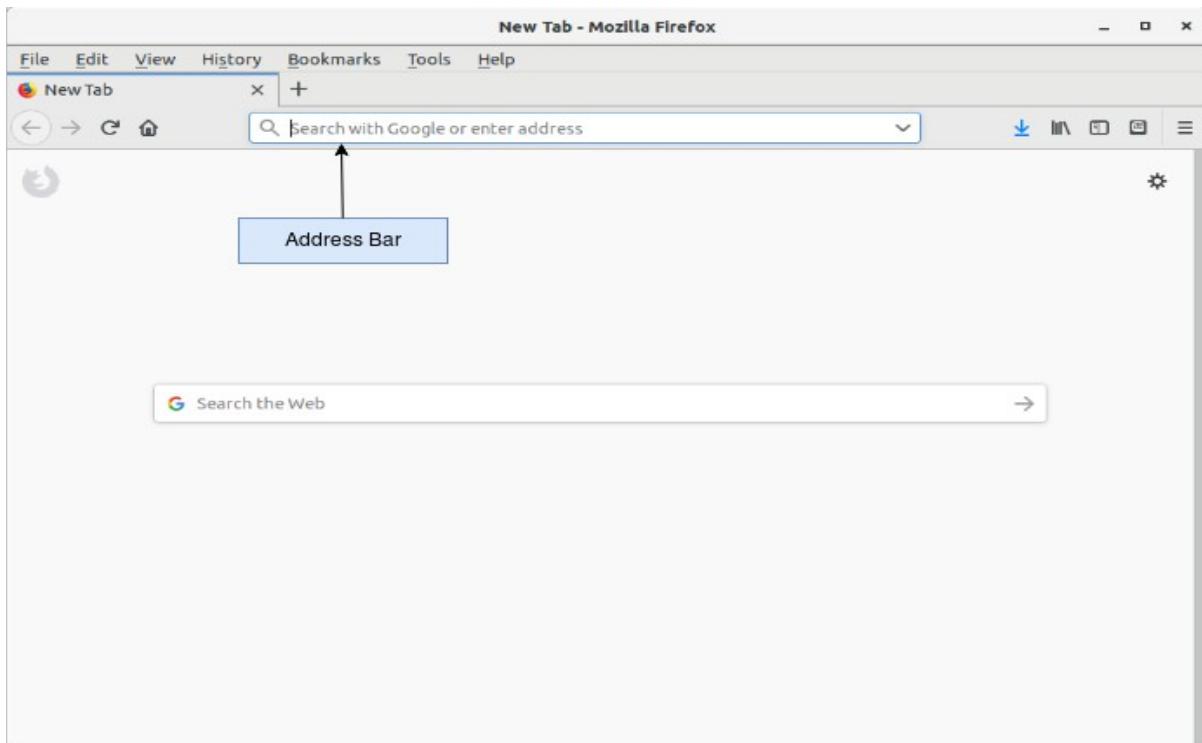


Figure 5: The address bar in a web browser is a text box (usually on the top of the browser's window), where we type the web site address we want to visit.

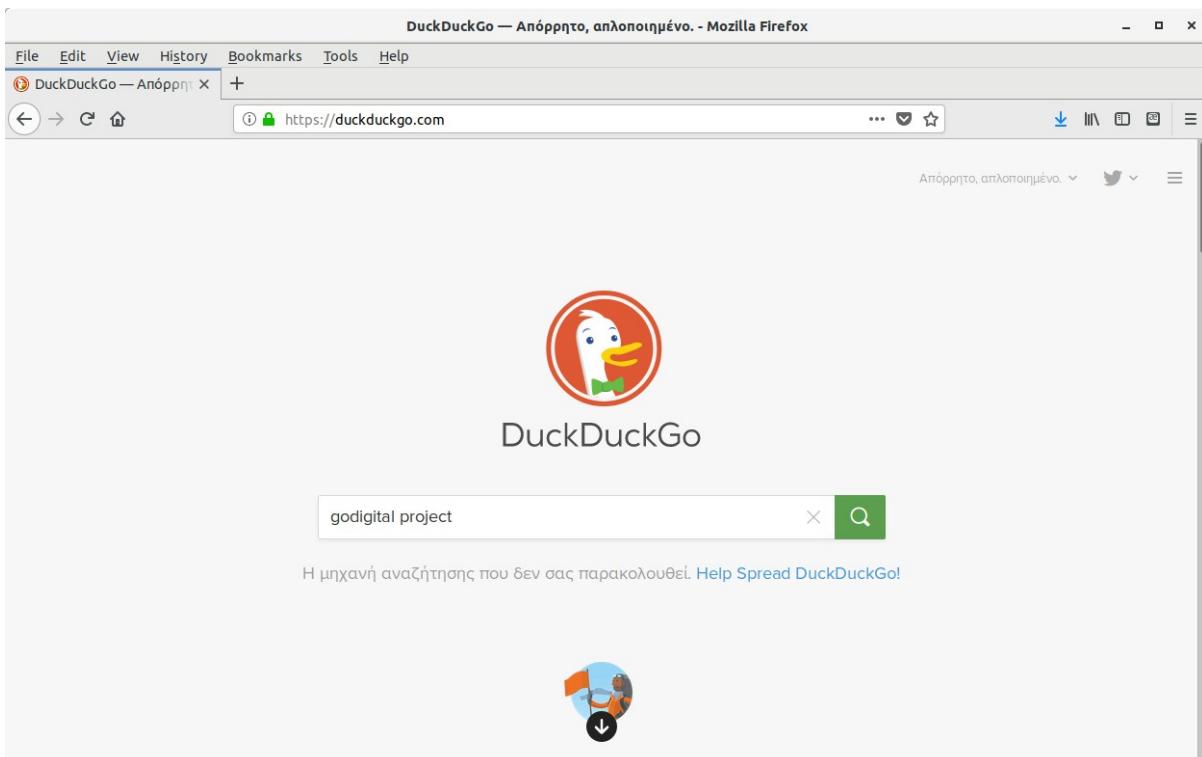


Figure 6: Search using DuckDuckGo search engine using the keywords godigital project

godigital project at DuckDuckGo - Mozilla Firefox

File Edit View History Bookmarks Tools Help

godigital project at DuckDuckGo +

https://duckduckgo.com/?q=godigital+project&t=h_&ia=web

godigital project

Web Εικόνες Βίντεο Ειδήσεις

Ελλάδα Ασφαλής αναζήτηση: Μέτριο Οποτεδήποτε

Συμπεριλαμβανωμένων αποτελεσμάτων για digital project
Αναζήτηση μόνο για "godigital" project:

GoDigital, Inc.
GoDigital, Inc. is a full scale worldwide distributor and aggregator, from simple file delivery to complex territory negotiation GoDigital covers it all. We're an approved aggregator to all major platforms including iTunes, Netflix, Vudu, Xbox, Google Play, and more!

https://www.godigital.com

Going Digital - Organisation for Economic Co-operation and ...
The Going Digital project will give policymakers tools they need to help economies and society prosper in our increasingly digital and data-driven world. Science, technology and innovation activities are facing disruptive drivers of change.

www.oecd.org-going-digital/

Digital Project Management: What is it? The Digital Project ...
Digital project management is the practice of 'making stuff happen' in a digital world. Digital project management describes the leading of teams and stakeholders to plan and execute projects, by organizing and motivating multi-disciplinary teams in the delivery of web-enabled projects delivered through screens or connected devices ...

https://thedigitalprojectmanager.com/digital-project-management/

Εγκατάσταση Αποστολή Σχολίου

Ta δεδομένα σας δε θα πρέπει να πωλούνται. Στο DuckDuckGo, συμφωνούμε.

- 1 Αποκλεισμός ιχνηλατών διαφημίσεων
- 2 Διατηρίστε το ιστορικό αναζήτησης σας ιδιωτικό.
- 3 Πάρτε τον έλεγχο των προσωπικών σας δεδομένων στα χέρια σας.

Figure 7: The search results of the search shown in Figure 6

teachers godigital at DuckDuckGo - Mozilla Firefox

File Edit View History Bookmarks Tools Help

teachers godigital at DuckDuckGo +

https://duckduckgo.com/?q=teachers+godigital&t=h_&ia=web

teachers godigital

Web Εικόνες Βίντεο Ειδήσεις

Ελλάδα Ασφαλής αναζήτηση: Μέτριο Οποτεδήποτε

Teacher websites - Largest Education Marketplace ΔΙΑΦΗΜΙΣΗ
Try this engaging resource in your classroom! Teacher-rated & reviewed
www.teacherspayteachers.com | Αναφορά διαφήμισης

Teachers GoDigital - INTEGRATING MOBILE LEARNING AND ...
The need to continuously upgrade teachers' digital skills, is evident and essential in order to ensure that are competent to best explore the potential of using technology in teaching. It is a requirement that education has to invest in the organisational change, digital competences of educators and the creation of these digital resources in ...
teachersgodigital.eu

Teachers Go Digital - Google Sites
This site would provide you with a selection of interesting digital material published on the Web to work within your lessons. The material in this site is a compilation from the web, so it should only be used for educational purposes, not to be distributed or commercialized.
https://sites.google.com/site/teachersgodigitalcr/

Videos ESL - Teachers Go Digital - Google
CLIC ON THE ICON TO SEE THE INFORMATION. Sign in | Recent Site Activity | Report Abuse | Print Page | Powered By Google Sites | Recent Site Activity | Report Abuse | Print Page | Powered By
https://sites.google.com/site/teachersgodigitalcr/videos

Εγκατάσταση Αποστολή Σχολίου

Ta δεδομένα σας δε θα πρέπει να πωλούνται. Στο DuckDuckGo, συμφωνούμε.

- 1 Αποκλεισμός ιχνηλατών διαφημίσεων
- 2 Διατηρίστε το ιστορικό αναζήτησης σας ιδιωτικό.
- 3 Πάρτε τον έλεγχο των προσωπικών σας δεδομένων στα χέρια σας.

Figure 8: Changing the keywords in a search differentiates the search results (see also Figures 6 and 7)

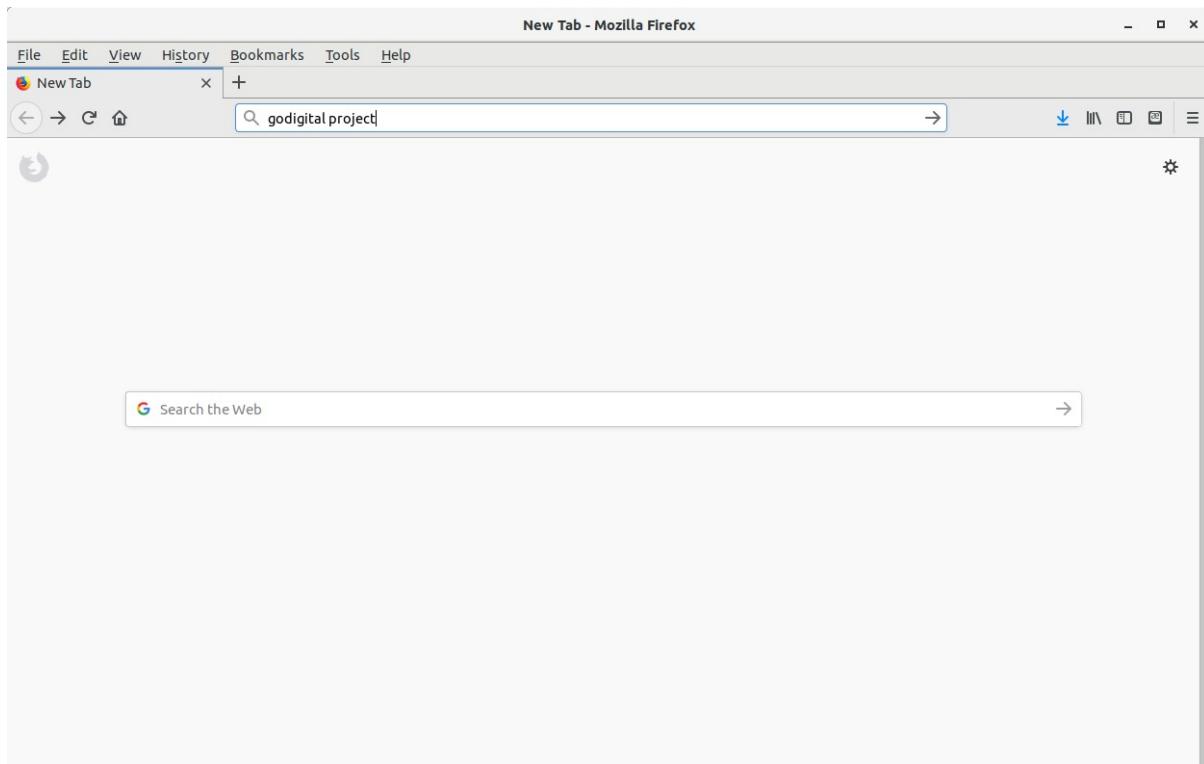


Figure 9: We can do a search by inserting the keywords in the address bar of the web browser. The web browser used a predefined search engine which we can change from the settings/preference option of the browser.

2.2.2.2.4 How a Search Engine works

A search engine is a complex software program that uses advanced algorithms:

- a) to quickly search the given keywords,
- b) to create a ranking of the results with the most relative on the top, and at last
- c) to present them to the user.

In order the search engine to be able to “answer” quickly to our searches, it does not search each word contained in all these documents to see if the keywords exist in there. This would be taking forever. On the contrary, the search engine uses a database to keep information about each webpage, creating an index that it uses to search the keywords quickly. Subsequently, a ranking algorithm decides which results are most relevant to what we are searching so that to present to us the most relevant on the top.

The following video explains in a nice way the way a search engine works:

https://www.youtube.com/watch?v=LVV_93mBfSU

2.2.2.2.5 The search results

As shown in the screenshots of Figures 2, 7 and 8, each result of a search in a general purpose search engine has a header, which is a hyperlink we can click to visit the web page. Below this header there is a brief text within which the searched keywords were found. This small text helps us realise if this webpage/document has information relative to what we are looking for.

j Differentiating the search results

In case the search results do not contain the information we are seeking then we can differentiate our search. A simple way to do it is to change the keywords. In the search shown in Figures 7 we notice that we do not see many results about the godigital project we are looking for. The only relative result is the Facebook Page of the project and also not in the first positions. In order to see more relevant results we should continue to the next pages of the results. The keywords “godigital” and “project” are so common words that we get many results unrelated to what we are looking for. Let us now use different keywords and specifically the keywords “teachers” and “godigital”. The results returned by the search engine are those shown in Figure 8. As we can see the very first result (ignoring the advertisement) is the web page of the program. This example shows that the success of a search depends on how successful is the selection of the keywords we use.

Another way to differentiate our search is to search a whole phrase. If we include two or more words in double quotes then the search engine searches the whole phrase and not each keyword separately. For example if our search is “*godigital project*” the search engine will return documents that contain the phrase “godigital project”. If we do not include the double quotes, the search engine will return documents that contain the words *godigital* and *project* but they may be in different parts of the document.

k Advanced searches using logical operators

We can use logical operators to make more sophisticated searches so that to refine the search results. The logical operators are the AND, OR and - (means NOT).

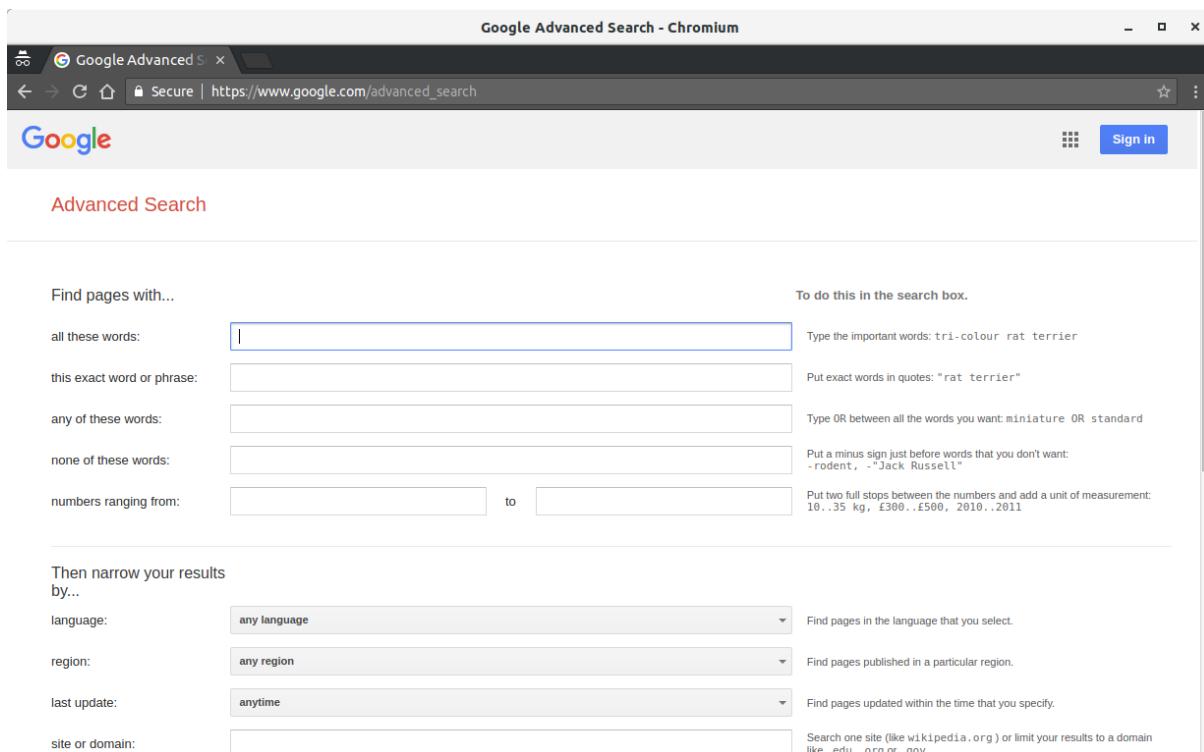
Using AND between two keywords means that we want results containing both these two keywords. On the contrary, OR means that we want results containing at least

one of these two keywords. If we use the - operator before a keyword, means that we do not want results containing this keyword.

We can do even more advanced searches if we use parenthesis. For example the search *(tiger or jungle) AND -Africa* searches for web pages/documents containing at least one of the words tiger, jungle and simultaneously do not contain the word Africa. This search returns completely different results than the search *(tiger or jungle) AND Africa* in which we have removed the - operator.

It is worth noting that some search engines like Google uses AND as default logical operator between keywords. For example, for google.com using *teachers godigital* is the same as *teachers AND godigital*.

Google.com which is currently the most sophisticated web search engine offers several more operators (see <https://support.google.com/websearch/answer/246643?hl=en>) as well as the Advanced Search (www.google.com/advanced_search, see Figure 10) which is a web form with which we can make advanced searches similar to the ones we can make using logical operators, without the need to write logical operators. There we can define also other features we want the search results to have like file type, results from a specific site, of specific language etc.



The screenshot shows the Google Advanced Search interface. At the top, it says "Google Advanced Search - Chromium". Below that is the URL "Secure | https://www.google.com/advanced_search". The main title is "Advanced Search".

Find pages with...

- "all these words": Type the important words: tri-colour rat terrier
- "this exact word or phrase": Put exact words in quotes: "rat terrier"
- "any of these words": Type OR between all the words you want: miniature OR standard
- "none of these words": Put a minus sign just before words that you don't want: -rodent, -"Jack Russell"
- "numbers ranging from": to Put two full stops between the numbers and add a unit of measurement: 10..35 kg, £300..£500, 2010..2011

Then narrow your results by...

- language: Find pages in the language that you select.
- region: Find pages published in a particular region.
- last update: Find pages updated within the time that you specify.
- site or domain: Search one site (like wikipedia.org) or limit your results to a domain like .edu, .org or .gov

Figure 10: The Advanced Search of Google.com

I Type of search results

A nice feature that the major web search engines have is to be able to choose the type of search results we want. For example we can ask from the search engine to present us only images or only maps or only videos relative to the keyword we inserted. Figure 11 is a screenshot with the video results in Google.com search engine having used *Crete* as search keyword. Figure 12 is a screenshot with images results in Yandex.com search engine for the same search. Notice that in both search engines the selection of the type of the search results is located exactly below the text box in which the user inserts his/her search keywords. For Google.com the options are “All”, “Images”, “Maps”, “News”, “Videos” and “More” (for “Books”, “Flights”, “Finance”, “Personal”)

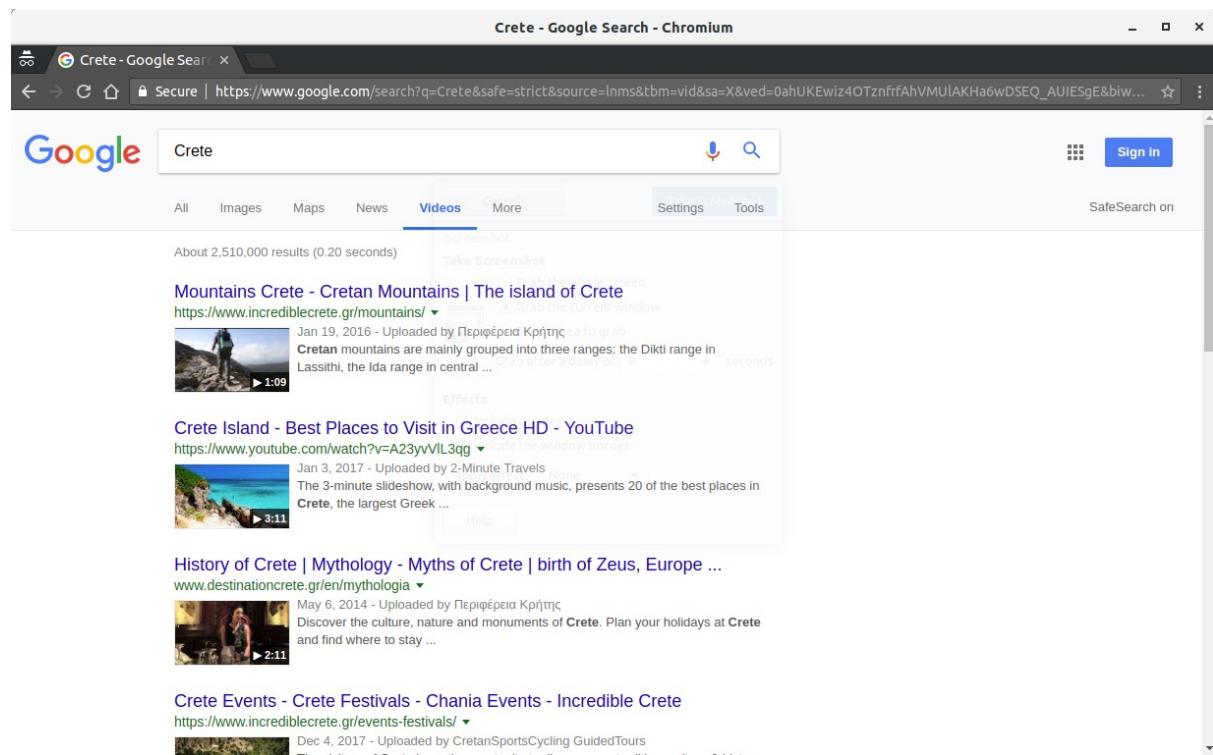


Figure 11: Video search results for Crete in Google.com search engine.

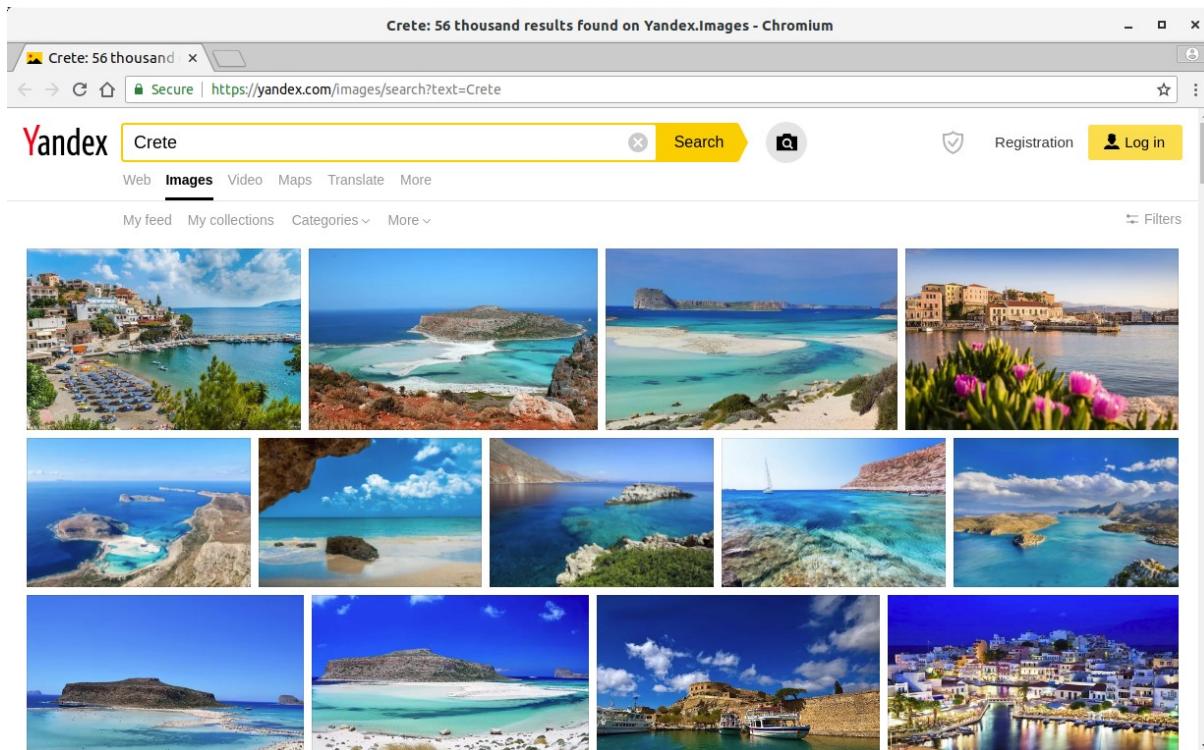


Figure 12: Image search results for Crete in Yandex.com search engine.

m Safe search - Filtering search results

Google.com offers plenty of more features in its web search engine platform and creates more every now and then. For a teacher though it is important to mention the SafeSearch setting. It is activated or deactivated from the Settings option you can find on its web page (see Figure 13). By activating this setting the results are filtered so that to exclude offensive or sexually explicit results. It is a very useful feature to avoid undesirable situations in the classroom.

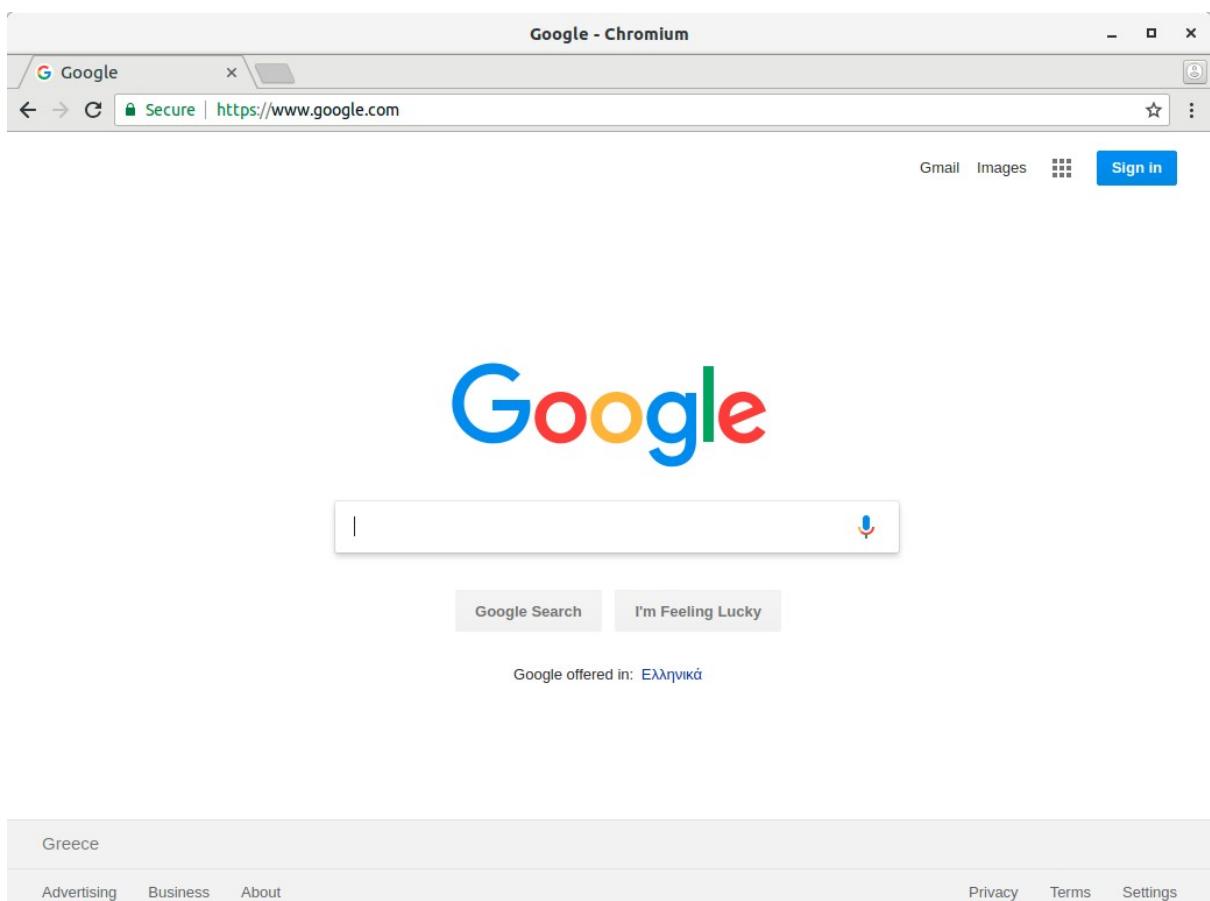


Figure 13: SafeSearch can be activated from the Setting option on the bottom-right of Google.com web page.

n False Information on the Web

A main concern when we find information on the World Wide Web has to do with the validity of the discovered information. The fact that everyone can publish information on it, inevitably means that there is lot of false information published either intentionally or not. Therefore, any information should be faced critically and adopted carefully. Some simple rules we can follow so that avoid becoming victims of misinformation are the following:

- Use common sense (e.g. we all know that the earth is not flat)
- Get information from valid websites (e.g. the website of a university or a governmental organization gives us the confidence that the information there is valid, on the contrary to a personal blog)
- check the last update of the web page containing the information
- confirm an information in multiple websites

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- *Google Search Help* 2019, Google, accessed 10 January 2019,
<https://support.google.com/websearch/?hl=en#topic=3378866>
- *Internet* 2019, Wikipedia, accessed 10 January 2019,
<https://en.wikipedia.org/wiki/Internet>
- *Search engine indexing* 2019, Wikipedia, accessed 10 January 2019,
https://en.wikipedia.org/wiki/Search_engine_indexing
- *Web Browser* 2019, Wikipedia, accessed 10 January 2019,
https://en.wikipedia.org/wiki/Web_browser
- *Web Search Engine* 2019, Wikipedia, accessed 10 January 2019
https://en.wikipedia.org/wiki/Web_search_engine
- *World Wide Web* 2019, Wikipedia, accessed 10 January 2019,
https://en.wikipedia.org/wiki/World_Wide_Web
- *Wolfram Alpha* 2019, Wikipedia, accessed 10 January 2019,
https://en.wikipedia.org/wiki/Wolfram_Alpha

2.2.3 TOPIC 3: THE WEB 2.0

a) What is Web 2.0

In a previous paragraph we mentioned that the very first web page published to the general public was in August 1991 by Tim Berners Lee. A screenshot of this web page is shown in Figure 14.

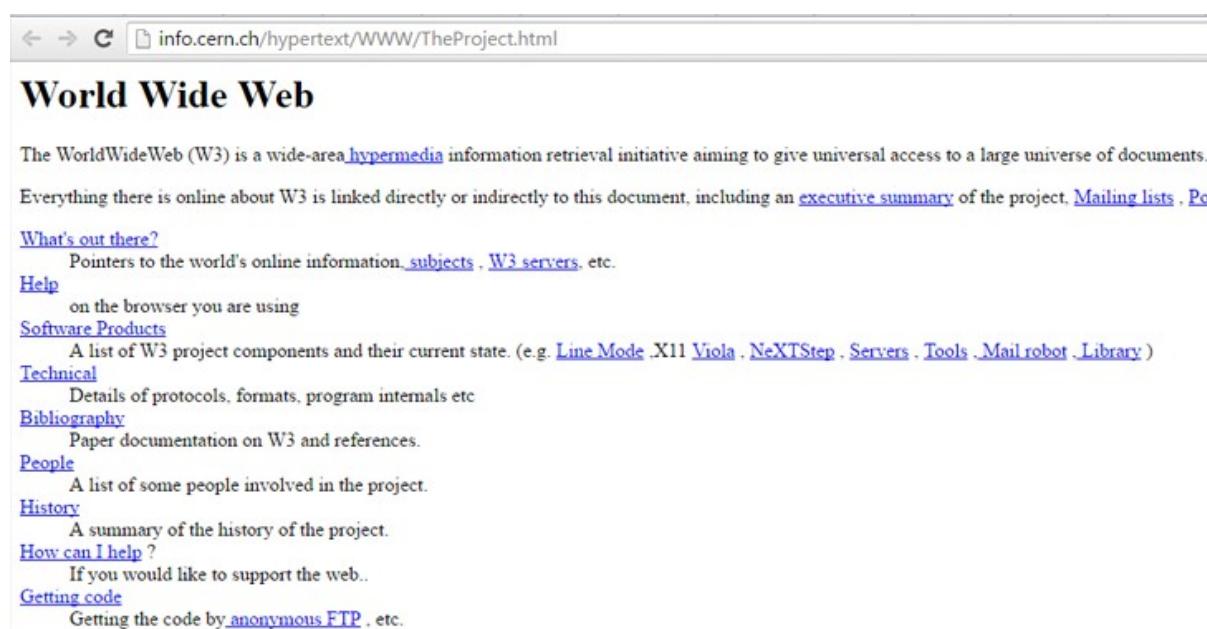


Figure 14: The first page of World Wide Web published in

August 1991 by Tim Berners Lee.

As we can see, it is a web page consisting of simple formatted text and hyperlinks (text on which we can click and be transferred to another web page). In such a web page we cannot have any advanced interaction, since the only thing we can do is to just view the information and click on some hyperlink to visit another web page.

From that infancy era of World Wide Web till now many things have changed. The web pages have become more complex and many of them incorporate particular characteristics that enable advanced interaction like content creation by the user, user collaboration etc. The Web 2.0 term was introduced to refer to that kind of web pages or tools. In the following paragraphs we will describe the potential features a Web 2.0 tool may offer. As an example we will use wisemapping.com, which is a tool for creating concept maps.

b) Web 2.0 Features

No need for software installation

One key feature of a Web 2.0 tool is that it is essentially a software tool that does not need any local installation to our computer. The only thing we need is a web browser through which we can interact to create content by ourselves like be working in a program locally installed in our computer. To see it in practice, let us visit wisemapping.com. The first thing we need to do to use the tool is to create an account, that is to create a private area within the tool that we will be able to access only using our username and password. When we log into our account we can use the tool and create a concept map. A screenshot of the interface of the tool and a concept map we have created is shown in Figure 15.

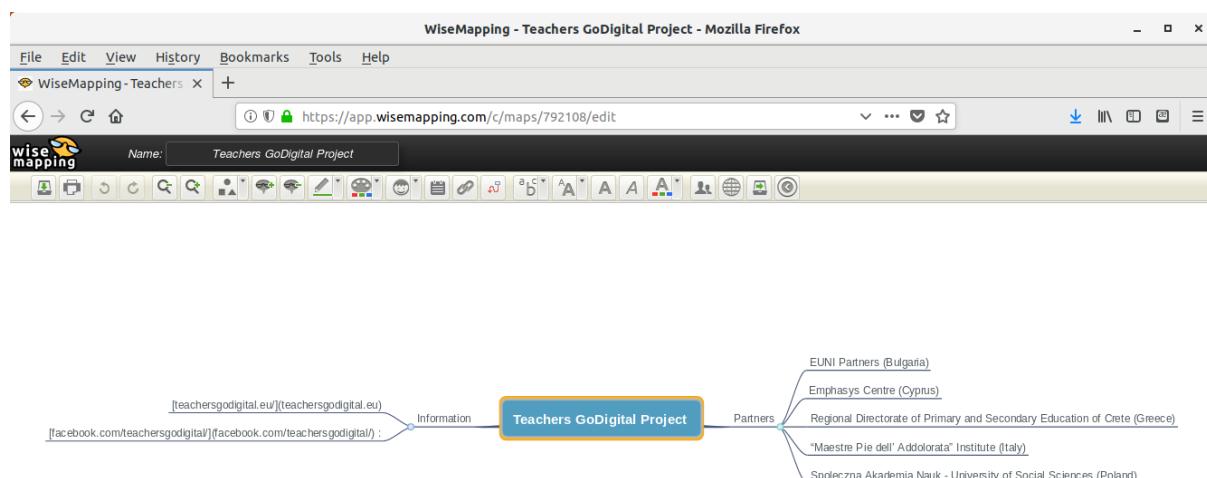


Figure 15: *Wisemapping.com is a Web 2.0 tool with which we create concept maps.*

Cloud storage

The content we create in a Web 2.0 tool is saved on the Cloud. In fact our work is saved in the servers managed by the Web 2.0 tool. Cloud is a metaphor of the networked devices that offer a service (see Figure 16). The Internet itself is sometimes presented as a cloud within which every connected to it device is included.

In simple and few words the content we create with the Web 2.0 tool is being automatically saved online. The next time we log in to our account we see the work we have done. For example the concept map we created in wisemapping.com will be there the next time we will access our account in the tool.

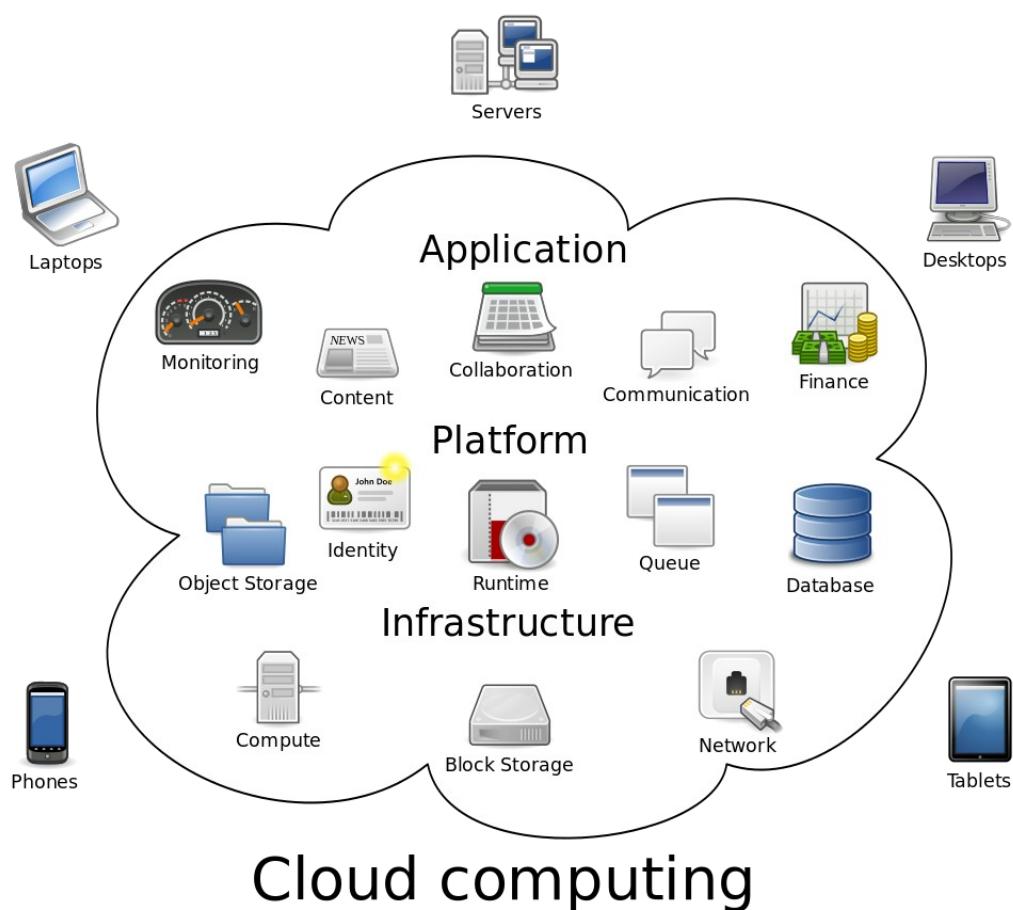


Figure 16

No need for backup

A subsequent feature to the cloud storage feature is that we do not need to take care of backing up our work. The Web 2.0 tool (and of course the administrators of it) is responsible to keep our work safe and secure from any data loss. Suppose that we create a big document consisting of many pages. Since it is a work that needs a lot effort to be done, it is wise to have a backup so that to be sure that we will not lose it e.g. due to a technical

problem. If we use a locally installed software such as Microsoft Word or OpenOffice Writer then we should not forget to keep this work in an external device (e.g. in an external hard drive or usb stick). With a Web 2.0 tool, like the Google Docs tool that is described analytically in the next section, we do not need to so, as the work is saved on the cloud and the data there are being regularly backed up.

Access from everywhere with any internet connected device

Another important feature of Web 2.0 is that we can access our work from everywhere using any device (desktop computer, laptop, tablet, mobile phone) connected to the internet. A teacher can create teaching material at home using a Web 2.0 tool and access it at school by just logging in his/her account at it.

Collaborative file processing

Many of the Web 2.0 tools offer another powerful feature that is the ability to share the created file to other users either just for viewing it or for editing collaboratively. For example we can invite other users to edit the concept map we created in wisemapping.com (see Figure 15). The file can be edited either synchronously or asynchronously by the other users.

Embedding files in other websites with instant update

Some Web 2.0 tools offer the potentiality to embed a file of it to another website. Let us suppose that we have a blog or we administer or edit a website (e.g. the school's website). We can embed there a Web 2.0 file provided that this feature is offered by the Web 2.0 tool we used to create it. The nice thing is that any change we do in the file is updated immediately in the place we have embedded it. For example, if we embed the concept map of Figure 15 in our blog and subsequently we make a change in the concept map, then this change will immediately be shown in our blog at the place where the concept map has been embedded.

Usually there is a button or hyperlink with name "Publish" where we can click and either get a URL to share the file to other users or get the embed code to place it in our blog or website.

c) Examples of Web 2.0 tools

There are plenty of Web 2.0 tools and day by day many more are being created while some other stop being maintained. Below we mention several Web 2.0 tools that can be useful for a teacher. Of particular importance is the Google Drive for which we dedicate a separate section to describe it in detail. Below we present a short list of Web 2.0 tools.

- Blog platforms (e.g. blogspot.com, wordpress.com)
- Wiki platforms (e.g. wikipedia.com, wikibooks.org, wikiversity.org etc.)
- Social media platforms (e.g. facebook.com, twitter.com)
- padlet.com
- kahoot.com
- coggle.it
- mindmup.com
- slatebox.com
- draw.io
- edmodo.com
- canva.com
- realtimeboard.com
- prezi.com
- animoto.com
- powtoon.com
- glogster.com
- storybird.com
- voicethread.com
- asana.com

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https://en.wikipedia.org/wiki/Web_2.0

2.2.4 TOPIC 4: INFORMATION MANAGEMENT

a) – The Google Drive and its apps

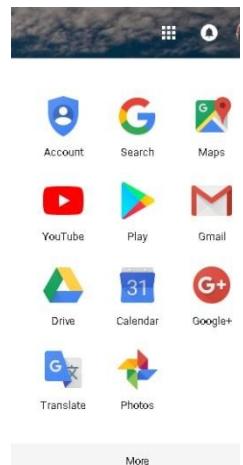
Providing reliable, cheap and fast internet access is linked to the idea of the cloud. The bases of this idea are mainly economic and technical: data in the cloud do not know geographic constraints because it is accessible from everywhere, it has a low cost, it is not lost if a computer is damaged, it uses software that is constantly renewed etc. Apart from these, however, there are opportunities for teaching and learning.

Files in the cloud can be accessed by their creator, but they can be accessed by other users also (if their creator allows it). A representative example is the service/application known as Google Docs. Users who have a Gmail account (important but not always necessary) can use online word processor software, spreadsheets, image editing, presentations, databases, and questionnaires. The user has access to the relevant software through the internet and is not installed in his/her own computer. In addition, the documents created (such as pictures, questionnaires, etc.) are stored in the cloud, so they are accessible from everywhere and shared by many users (ITCP, 2017).

This latter feature, in fact, makes them important teaching and learning tools that can be exploited in many ways, tools that promote current qualities in education (eg collaboration: collaborative creation and management of documents, forms, presentations etc., sharing, familiarizing students with modern data and applications, contributing to collective creations, and finally to collective intelligence) and instruments that promote pedagogical principles.

In addition to the service mentioned above, other apps that can be used in education (YouTube, Google Classroom, Maps, Photos, Translate, etc.) are available.

The following sections aim to familiarize teachers with the use and basic application functions that allow the storage, organization and sharing of information and the co-configuration of text, presentation and form files. They also aim to provide suggestions for their pedagogical and didactic use.



b) Create a Google Account and get acquainted with the most basic Google Apps

In order to create a Google account we start from the address:
<https://accounts.google.com/signup/v2/webcreateaccount?hl=en-GB&flowName=GlifWebSignIn&flowEntry=SignUp>

We fill in the details requested (name, surname, username and password). We follow all the steps by pressing "Next" each time and following the prompts of the screen. This process is also a Google Account creation for all of the company's services (Google+, YouTube, etc.). Google provides a number of applications, including Google Drive. In the next sections it is presented the way of its use and exploitation. Some other apps that are typical and quite usable in education are: Google Maps, Google Photos, Google Classroom, YouTube, Translate, Calendar, Google+ and some more. All of them are collaborative applications and use the cloud for their organization and storing.

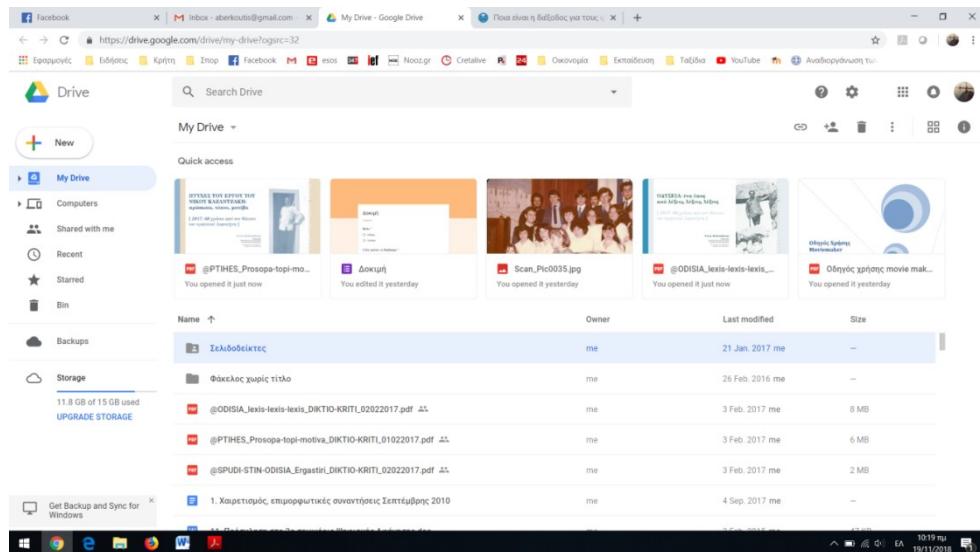
c) Uploading, storing and organizing data in the cloud (Google Drive)

Google Drive is a cloud storage service with 15 GB of free space (together with Gmail). In order to use the application, we open the Google Drive from the Google apps' page.



It is necessary to have an active Google account to access the application. If we already have an email address in Gmail, we enter using username and password. Otherwise, we do what was described before or we gain access by clicking on the "Create Account" and filling in, on the page that opens, the information and data required. In this way we can directly create a Gmail account.

By clicking on "Drive" the following page will be displayed:



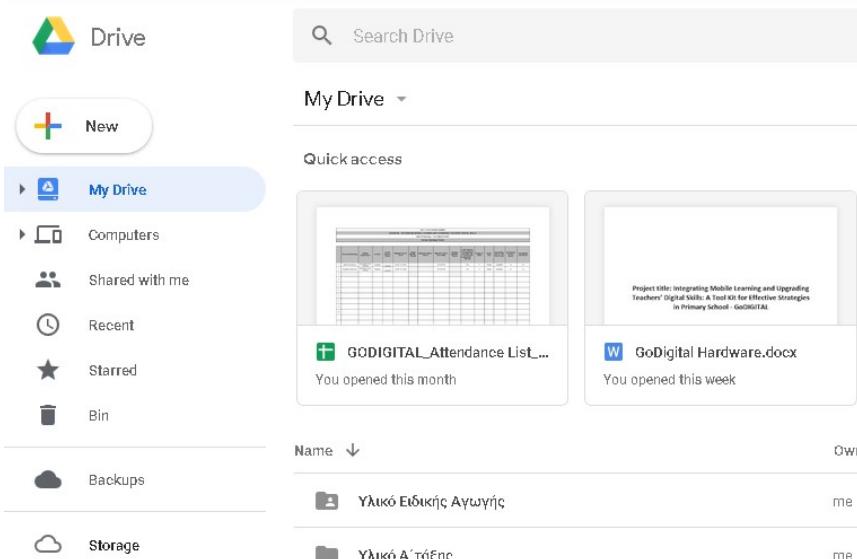
Uploading and storing a file

To upload a file or folder from our computer, we click on "New" on the top left of the screen and select a file or folder. A window will open that contains the files or folders of our computer. We can simply select and upload the desired file or folder. The file is stored in the available Google Drive space and can just stay stored there and accessed by any computer or other users selected by the Google Account holder (account creator/manager). Then clicking on "My Drive" we can see the files or folders we have uploaded.

We can upload and store about 30 different kinds of files on Google Drive. They include well-known file types such as doc, pdf, xls, jpg, etc, but also Photoshop, Illustrator, and others.

Additionally, on Google Drive, we can upload and open files we can't open in our computer as we may not have the corresponding program set up. If e.g. we can't open a docx file on our computer we can upload it to Google Drive and open it from there. To organize the files on Drive, it is possible to place them in folders we create by clicking on «My Drive-New Folder» menu.

The application itself automatically classifies the files in "recent", "shared with other users" and "starred" namely. marked by the user with a star (as important maybe).



Finally, the files stored on the drive can be shared with other users with rights (edit, read, or comment) decided by the administrator/owner of that Google account, as it is being discussed in the next section.

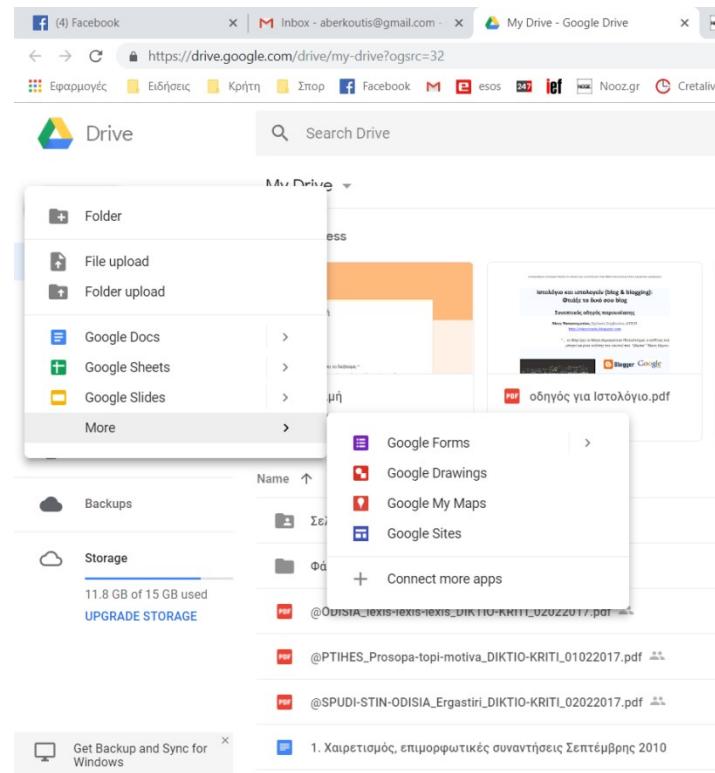
- e Creating, managing, sharing, giving user permissions and cooperating in shared docs and presentations

Creating and sharing a file

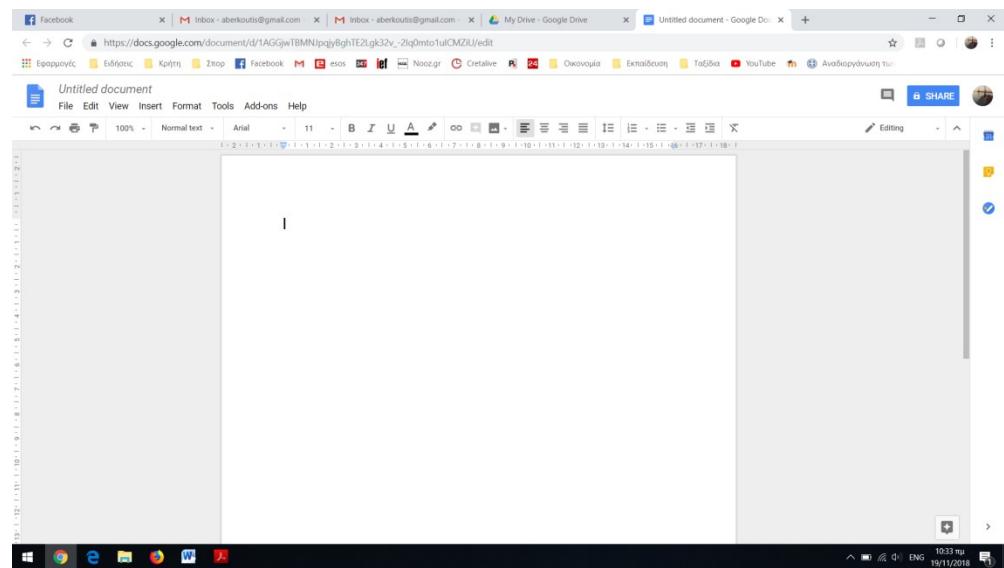
Google Drive allows the creation and co-management of documents, slides, spreadsheets, forms, maps, designs, websites, and other applications.

To create a new file in Google Drive, we do not need to have this program installed on our computer. All we have to do is click the “New” icon on the left top of the screen and choose the type of file we want to create from the list that appears.

The options given to us are displayed this way:

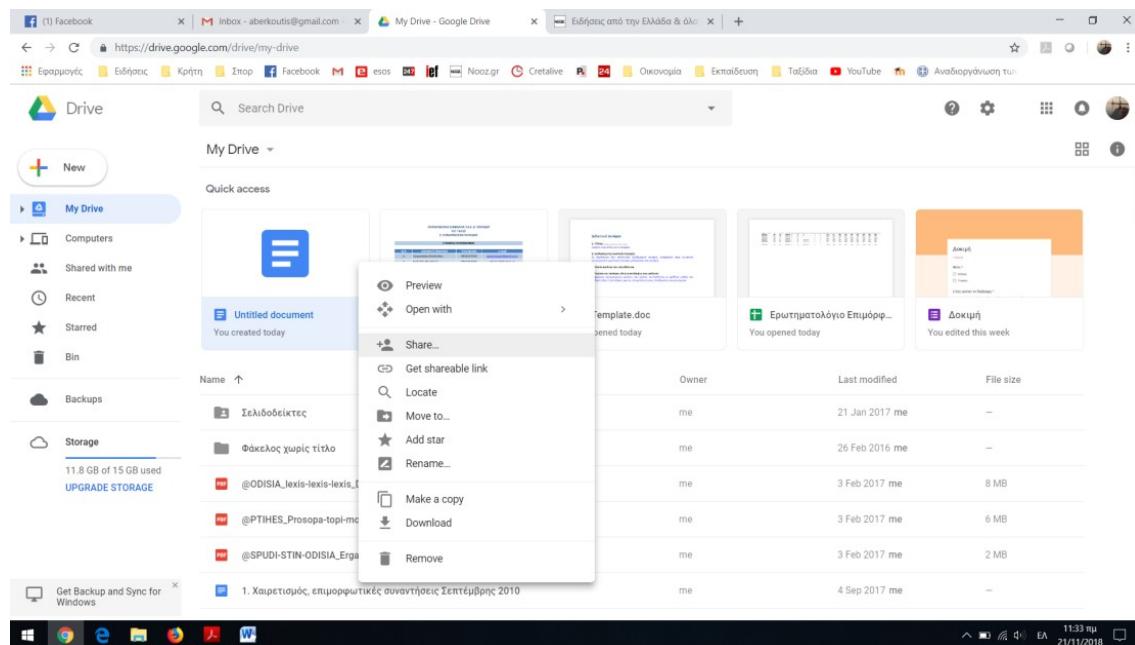


By clicking e.g. on “New” and on «Google docs- Blank document» a blank page of a new document will appear:

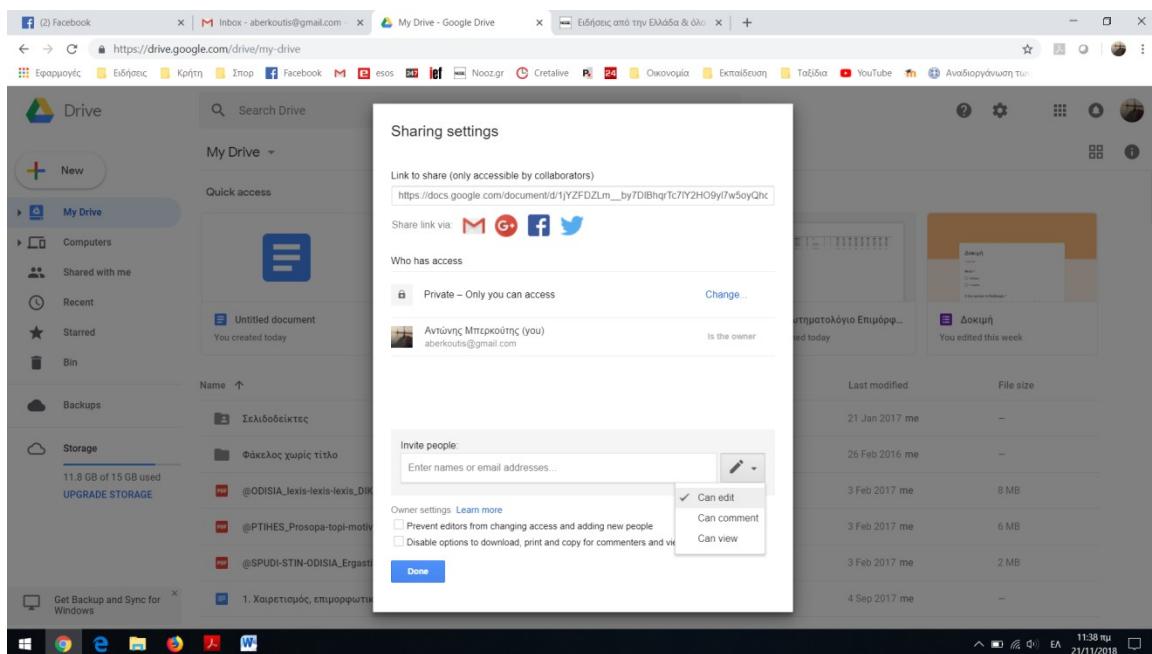
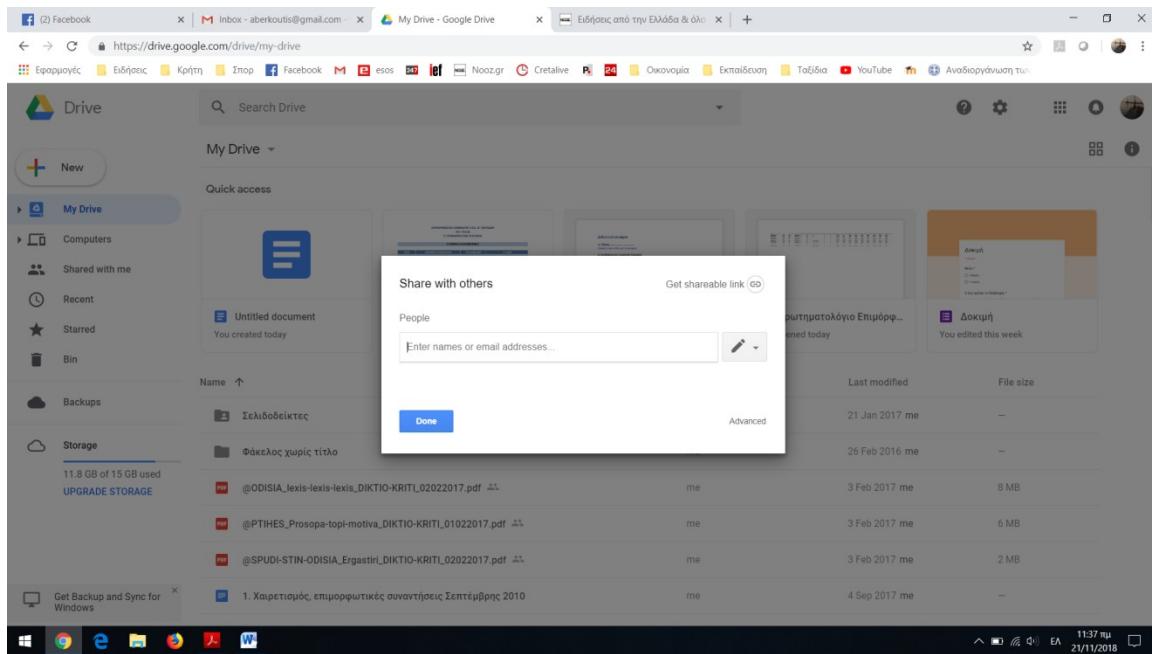


A text editor It will open, that resembles the usual text editor and has most editor tools of a text processor. Whatever we write on this file will be automatically saved without having to make any choice. To give a name to that document, we click on the File menu in “Rename”, write a filename and press OK.

In the files we create, we can give rights to other users to process them (shared document). That's a big advantage of the program. We can even decide that more than one uses can work at the same time on the same document, writing, modifying, correcting and completing wherever they want. This promotes teamwork and cooperative actions. Of course, synchronous and asynchronous collaboration capabilities are provided in the same document where editing rights have been given to users. We can share a document by right-clicking on the document that we want to share and choosing "Sharing."



For a shared document we need to determine which specific individuals we are addressing for cooperation and the rights we give them to use it (editing, commenting or reading only). We invite partners/participants through their emails and those who open the document from the invitation they receive in the emails, co-operate and co-modify the document with others, who have similar rights including the administrator.



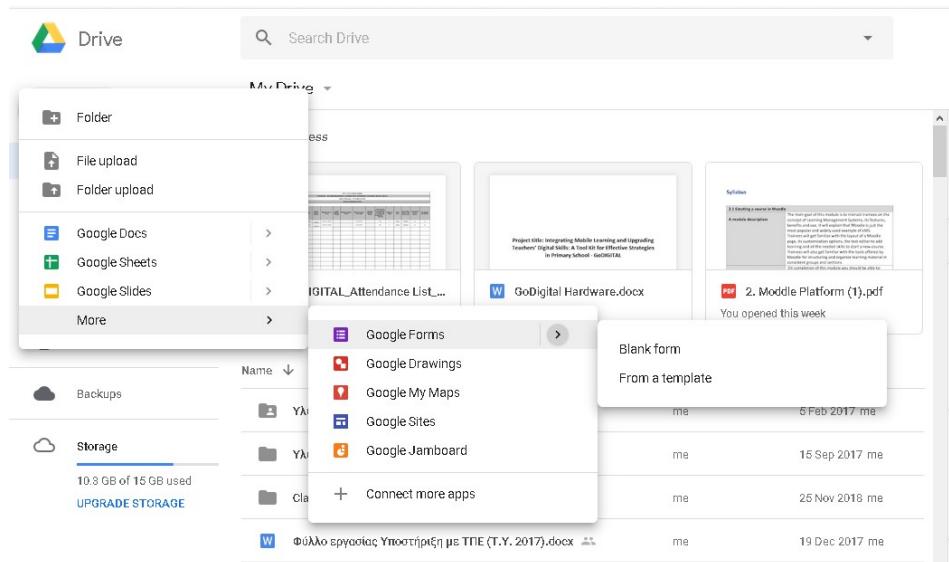
When we finish the document's procession and at any time during processing a Google Doc, it can be converted into another format (e.g. docx, txt, odt, pdf, webpage, etc.) and downloaded to the computer with the "Download As" command.

Similarly, following the same procedure described in the previous paragraphs we can open a presentation and give editing rights to user(s) in order to co-modify it with him/her/them. The presentation's environment has many of the tools of other known applications and allows users to co-configure multimedia presentations.

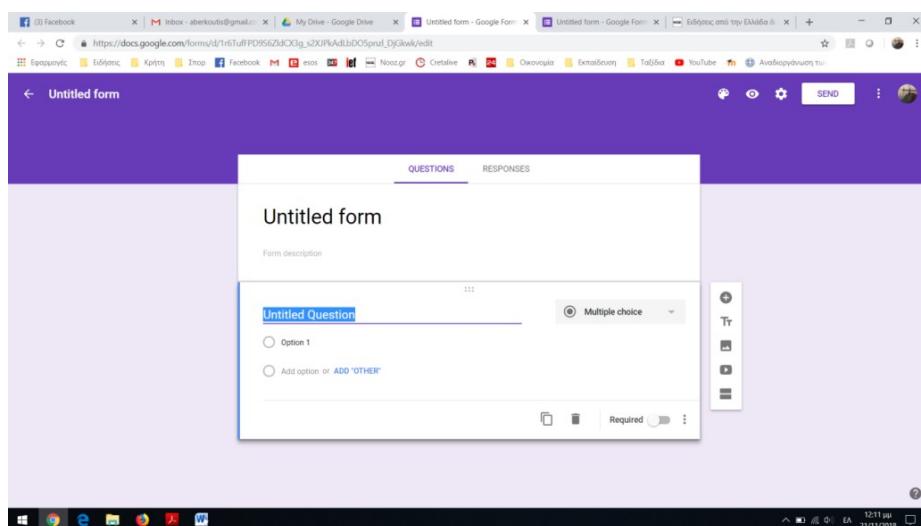
- f** Creating, managing, sharing, giving user permissions and cooperating in shared Google forms. Receiving the incoming data

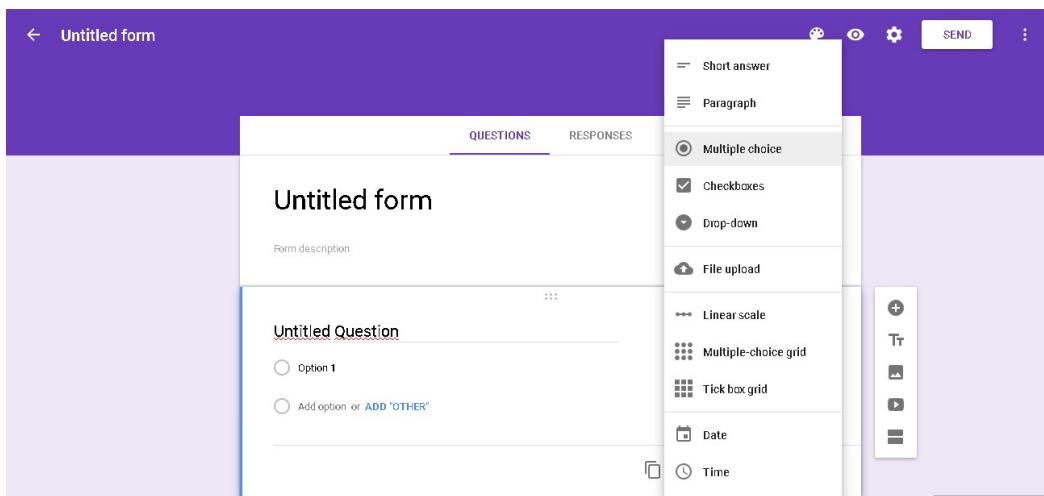
Google Drive enables us to quickly and easily build questionnaires or quizzes, share them with specific users or leave them available to everyone ("public") online and get participants' answers to a spreadsheet.

To create a questionnaire, we click on "New" and then on "Google Forms" as shown below. We can choose between a blank form and a template.



We give a name to our form in the "Untitled Form" field and save it. Then we start formulating questions and formatting them.

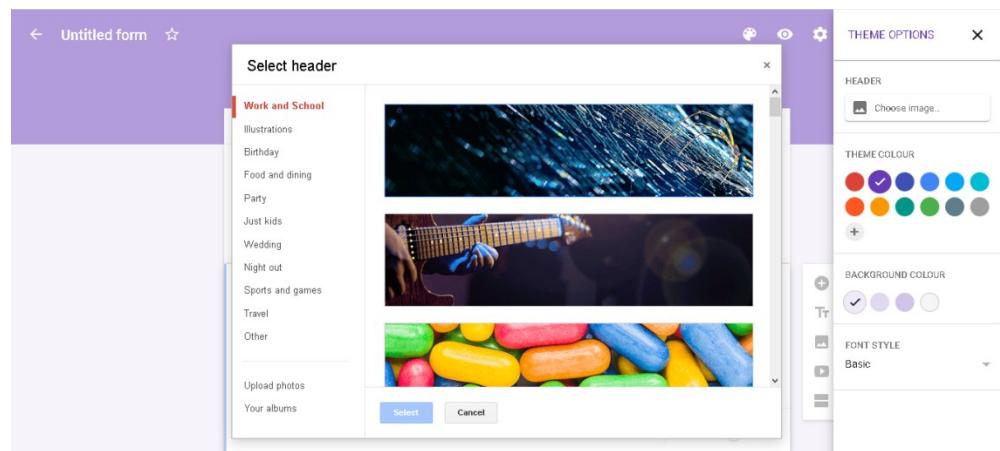




The first one appears automatically. The next ones we want to add we click each time the + tool located on the right.

In each question it is necessary to select first its type (short answer, paragraph, multiple choice, checkboxes, dropdown e.t.c). Then we type the question and possible answers. Questions are saved automatically There is the possibility to upload and include files such as, for example, pictures, videos, etc. The questionnaire can be structured in one or more sections. The Add a New Section the option is again given to the tools on the right. We can also duplicate a question or delete it.

At any time we can see our creation using the preview option. From the "Customize Theme" option, we can change the pattern, the background or the image of the questionnaire by choosing from a range of colors or topics sorted into categories or by uploading and using our own image.



When we complete the form/questionnaire, we can share it from "Add Collaborators" option by giving editing, commenting, or reading rights. In the first case (editing), we have collaborative processing and formatting of the form, following the way and utilizing the capabilities that described for the documents.

Untitled form

Form description

Untitled Question

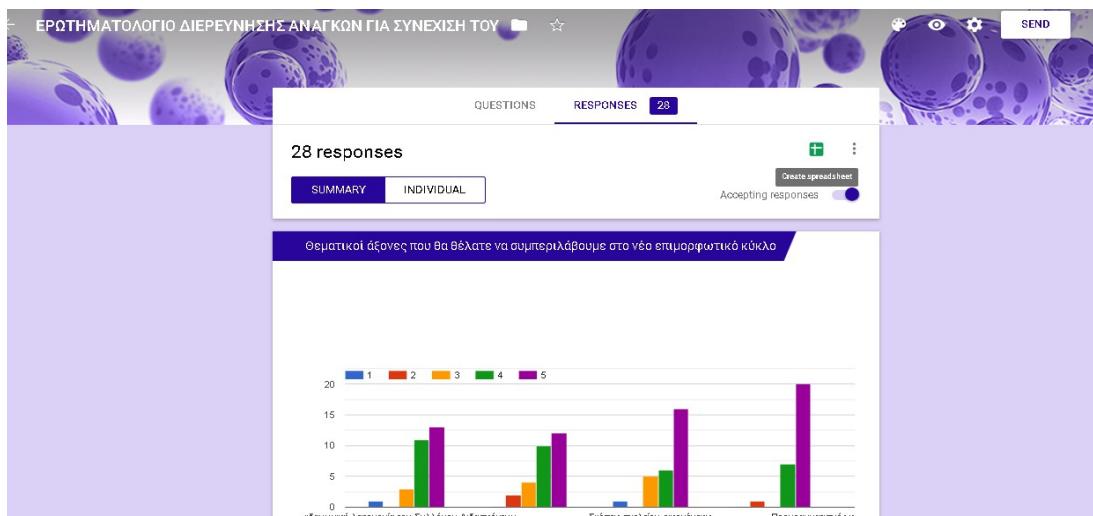
Multiple choice

Option 1

Add option or ADD "OTHER"

Required

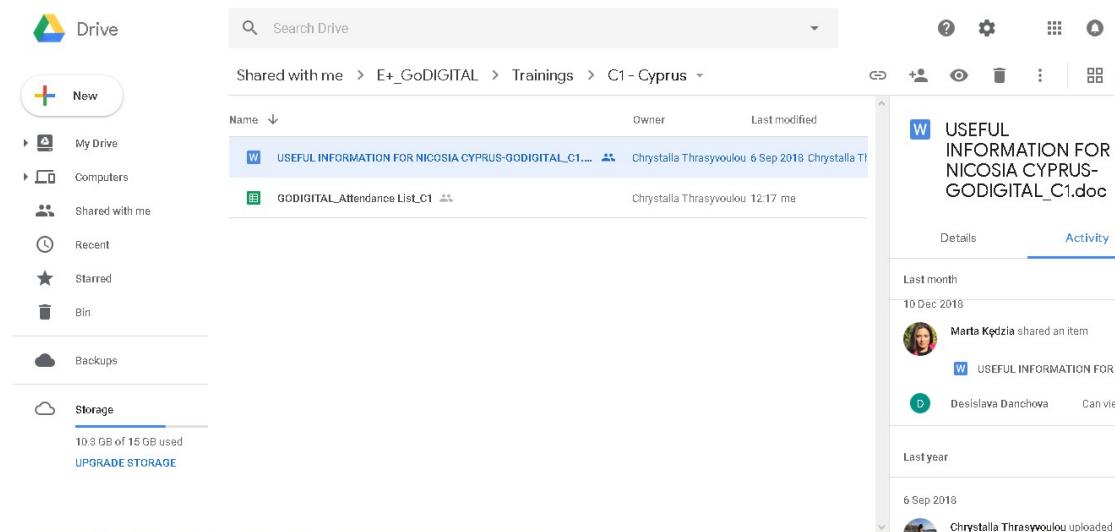
After the answers' entry process has been completed, the results are available in an Excel document format and in a graphic representation either as for all the responders a whole or individually on the “Responses” tab.



The results available in a spreadsheet form can be retrieved from the "Create Spreadsheet" option.

Reviews' history monitoring

Useful for the collaborative process is the ability for partners to see the activity history on a shared document or folder. This way they can watch the time and know who has made changes in the document.



How can we see Google Drive History (past activity)?

In our drive we click “My Drive” on the left. Then in the upper right, we click “Info” and then “Activity” to see recent changes. In case we are interested in the activity of a specific file or folder, we click the file or folder. To see older changes, we simply scroll down on the right side.

g Possibilities for pedagogical uses of Google Drive

Given the emphasis of current teaching practices on teamwork and cooperative teaching, which are also proposed by socio-cultural theories, the cooperation of pupils is encouraged today, with the help, the mobilization and the encouragement of the teacher, and the ultimate goal of building and eventually acquiring knowledge (Kahrimanis, 2016). The opportunities given by the widespread use of new technologies is likely to “offer cooperative learning opportunities between instructors and learners and/or among learners” while at the same time providing them with “more opportunities for improving problem solving capabilities, enhancing high order thinking skills, and achieving learning effectiveness” (Sifakis, 2010, 12-13).

More specifically, the educational use of Google Drive enables students and teachers to work collaboratively, synchronously or asynchronously, by creating or editing any file together. They can also access their apps and data at anytime from anywhere without any restrictions on place and time.

Among the greatest advantages for the learning process are: the possibility to collaborate in real time or asynchronously where an unlimited number of people can work together, the ability to check the editions that have been made in a file by viewing full historical revisions, the possibility to exchange comments by group chat or annotation

through "stickers" notes, the sharing of images and templates, the opportunity of teachers to intervene, etc.

More specifically. Indicatively:

- Teachers can use the documents to cooperate on collaborative writing and make notes, while students can write and modify assignments either individually or in collaborative groups.
- Teachers can create data tables and graphs in spreadsheets. They can also use the spreadsheet capabilities individually or in collaboration, even as a rating tool. Students have the opportunity to use them as a visualization tool for research results through graphs, e.t.c.
- Forms can be used by teachers as a tool to research, explore topics concerning students or parents, create feedback, and evaluation quizzes, while students can use them as a tool for conducting small surveys in some projects that usually require collaborative processes.

More ideas and applications can be found in the additional literature proposed.

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Kahrimanis, A. (2016). Pedagogical applications of the online platform Google Drive. In *The Proceedings of the 10th Hellenic Conference of ICT Teachers*, Nafplio, 15-27 of April 2016

Sifakis, N. (2010). Lifelong Learning, E-learning and Professional Development: Challenges and Opportunities for Greek Foreign Language Teachers . In *ICT and Lifelong Learning in all Types of Education: Does this Promote Cultural Diversity?* Proceedings of the ecoMEDIA – Europe 2010 annual conference Kalamata: K.A.N.E., 11-17

2.3 - Additional Reading

2.3.1 Topic 1

Title	Availability
http://www.saferinternet.gr/	Internet

https://saferinternet4kids.gr/	Internet
https://www.openbook.gr/category/education/internet-safety/	Internet
Ασφαλής χρήση του Διαδικτύου και των ψηφιακών πόρων ε-πολιτειότητα (Εισαγωγική Επιμόρφωση για την εκπαιδευτική αξιοποίηση ΤΠΕ – Επιμόρφωση B1 Επιπέδου)	https://www.slideshare.net/vasilisdr/e-77105617
http://www.safeline.gr/plirofories/symboyles	Internet
The Internet is Like a Puddle (Big Hug, #3), by Shona Innes, published January 2015 by The Five Mile Press	Book (Hardcover, 40 pages)

2.3.2 Topic 2

Title	Availability
Google 2019, <i>Google Search Help</i> , accessed 10 January 2019 https://support.google.com/websearch/#topic=3378866	Available in: https://support.google.com/websearch/#topic=3378866
DuckDuckGo 2019, <i>Friends Don't Let Friends Get Tracked</i> , accessed 10 January 2019, https://duckduckgo.com/spread	Available in: https://duckduckgo.com/spread
Wikipedia 2019, <i>Web Browser</i> , accessed 10 January 2019, https://en.wikipedia.org/wiki/Web_browser	Available in: https://en.wikipedia.org/wiki/Web_browser
Wikipedia 2019, <i>Web Search Engine</i> , accessed 10 January 2019, https://en.wikipedia.org/wiki/Web_search_engine	Available in: https://en.wikipedia.org/wiki/Web_search_engine

Topic 3

Title	Availability
OEDb Open Education Database 2019, <i>101 Web 2.0 Teaching Tools</i> , accessed 10 January 2019, https://en.wikipedia.org/wiki/Web_2.0	Available in: https://en.wikipedia.org/wiki/Web_2.0
Light, D., Polin, D. K., 2010, Integrating Web 2.0 tools into the classroom: Changing the culture of learning, Center for Children and Technology, New York, 28 June 2010	Available in: https://files.eric.ed.gov/fulltext/ED543171.pdf
Bower, M., 2015 A Typology of Web 2.0 Learning	Available in:

Technologies, Macquarie University, Sydney,
Australia

[https://www.mycota.ca/assets/
uploads/documents/General/
csd6280.pdf](https://www.mycota.ca/assets/uploads/documents/General/csd6280.pdf)

2.3.4 Topic 4

Title	Availability
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8.2. Module 2 – LMS

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Module 1: Moodle

<p>Description of the module</p>	<p>The main goal of this module is to instruct trainees on the concept of Learning Management Systems, its features, benefits and use. It will explain that Moodle is just the most popular and widely used example of LMS.</p> <p>Trainees will get familiar with the layout of a Moodle page, its customization options, the text editor to add learning and all the needed skills to start a new course. Trainees will also get familiar with the tools offered by Moodle for structuring and organize learning material in consistent groups and sections.</p> <p>Then it will instruct trainees on the use of resources to enrich learning content with attractive and meaningful extra attachments to empower the learning experience.</p> <p>Trainees will get familiar with all kind of resources that can integrate the plain text of the lesson, will learn how to use labels and how organize resources in pages, blocks and how to group them in folders.</p> <p>Then it will instruct trainees on the use of activities to assign tasks to students, receive feedback, assess students' preparation.</p> <p>Trainees will get familiar with all kind of activities that can help understanding what taught with the plain text of the lesson and resources provided. Trainees will learn how to use question banks, assign tasks, create quiz, manage a forum, add surveys, set a glossary.</p> <p>Finally, it will instruct trainees on the tools provided by Moodle to manage course participants.</p> <p>Trainees will learn how to enroll students, change permissions, send messages or newsletters to students. Trainees will get familiar with gradebook management and grouping students</p>
<p>Intended learning outcomes²</p>	<p>On completion of this module you should be able to:</p> <ul style="list-style-type: none"> ● understand what a Learning Management System is ● get familiar with the Moodle environment ● customize account setting

² Intended learning outcomes address what a learner should be able to do after engaging this module. Use one verb (or at most two) for each outcome. (**Cf. curriculum and make amendments you find necessary**)

	<ul style="list-style-type: none"> ● use the text editor ● use Moodle's in-line help ● create a course ● customizing course sections ● adding content to a course ● get familiar with the Moodle resources ● use files and URLs ● use labels ● create pages and books ● organize resources in folders ● get familiar with assignments ● create a question bank ● create quiz ● manage a forum ● create choices and surveys ● set a glossary ● enroll students ● send messages ● meet online students ● manage groups ● work with gradebooks ● categorize gradebook
Learning activities	<ul style="list-style-type: none"> ● exploring 4 obligatory and 8 optional reading material ● doing 10 exercises ● passing 4 test, contains 11 questions
Estimated duration	<p>Total workload is 290 minutes including:</p> <ul style="list-style-type: none"> ● 250 minutes for exploring obligatory reading material ● 40 minutes for exercises

2 - Learning content

2.1 Introductory text

2.1.1 Topic 1 - Creating a course in Moodle

Before we begin learning how to use Moodle, let's spend a few moments to understand what it is. Moodle is a Learning Management System, or LMS. Learning Management Systems are online platforms, where teachers and students can collaborate in order to improve student achievement. With LMS teachers are allowed to create an online class, add resources and assignments for students to be used both inside and outside of the classroom. With an LMS assignments can be graded, delivered a rapid, high-quality feedback to teachers who are allowed to communicate with students in a number of ways. In a few words, Learning Management Systems allow teachers to organize and optimize their entire class process.

For students, the Learning Management System allows online access to their class. They can find their class syllabus and assignments, including due dates. They can find and use a wide variety of classroom resources, they can even turn in assignments and view up-to-date grades. Also, students can use their Learning Management System to maximize communication and collaboration with their instructor, as well as classmates. For both teachers and students, a Learning Management System can be used in and out of the classroom to help drive student achievement.

Teachers are using tools such as Moodle to permit students to take control in their learning and to allow the learning to continue beyond classroom premises. This liberates time for educators to deliver more high-quality feedback, helping students gain higher levels of mastery. In the digital age, Learning Management Systems also provide an excellent opportunity for students and teachers to improve their digital literacy skills.

Moodle is an open source, learning management system: the source code can be downloaded for free. This is however a task for a system administrator, this course is not going to cover the administrative features of setting up Moodle. If your version of Moodle looks slightly different, one reason could be that your administrators have chosen to include or exclude certain Moodle features.

2.2 Expanded text

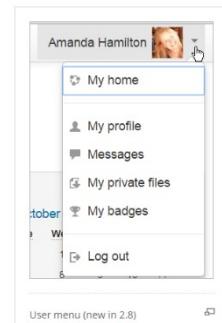
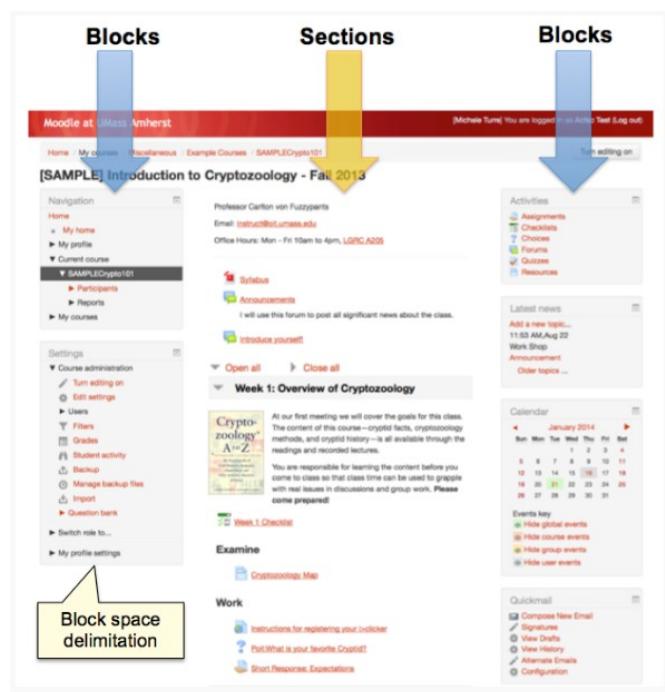
2.2.1 Topic 1 - Creating a course in Moodle

Navigating a Moodle Course

In the upper right of the main page, there is access to profile and settings

. Here teachers can also access grades and received messages.

On the main course page, there are **blocks** on the left and right side, they will help add functionality to the course. There are a wide variety of different blocks that teachers will be able to add in order to customize the course layout and functionality. Example of blocks can be the Upcoming Events, Latest News, Online Users and Calendar. There is however a variety of different blocks that can be added. One of the blocks is this Latest News block in the upper right, which notifies students of any news or notifications that teachers post.

In the centre is where our course is broken up into sections. Courses are generally divided up into different topics. For example at the top there could be an introduction and below being listed all different course sections: "Chapter 1" "Chapter 2" and so on. Within each section, teachers will add learning resources, including pages, files, assignments, and quizzes. Resources are the main learning material, the documents and tools students will access to integrate the lessons content. They can be PDF opening in a pop-up on the Moodle platform for students to view.

But they can as well be video which students can watch or links to webpages.

If at any point teachers want to make changes to the course, it is needed to turn editing on. In the top right corner, there is a button titled "Turn editing on." This also appears in the Administration block on the left-hand side. On the left-hand side, there are two very important blocks: The Navigation block that permits teacher to move around the course.

From here it is possible to navigate to different areas within the course and even access resources.

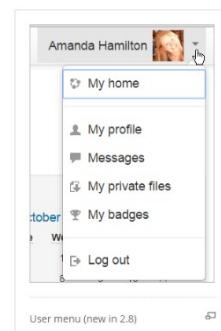
Below the Navigation block is the Administration block. The Administration block allows to create and manage the course. In the Administration block editing can be turned on and off, teacher can change the settings of our course, users can be enrolled or gathered in groups, or changed their permissions.

From here teachers can see reports and grades and a wide variety of other things.

Customizing account settings

Administrator will set up a profile for every teacher and provide credentials to log in. When logged teachers have the ability to customize their settings according their needs.

In the upper right-hand corner there is a drop down menu for Login Information and there we can select ***My Profile***.



This will give information about your profile and you'll notice in this main section here we can click on ***Edit Profile***. Here we can edit information such as our name, email, whether to allow people to see our email or if we prefer to keep it hidden. There are a lot of personal information that can be customized such as city, country, time zone. It is also possible to enter a brief description, a short bio or some personal interests. Down below we have the option to include a user picture.

Of course, we can add our web page, Skype ID, Yahoo ID, and several other things.

Another important customization tool can still be reached through the dropdown menu in the upper right and selecting ***Preferences***. Here, we can check a lot of different preferences in our account, including changing our password or our preferred language.

A very common customization concerns the ***Notification*** settings. To do that, we need to click on Messaging. From there we can customize the way that we want to receive notifications for our course. There are a lot of different things we can be notified about within our notifications section.

We have the option to be notified as a Popup or to be notified via Email. And for each of these you can go through and you can click on the boxes that you prefer as your form of notification. There are some default settings already done in here and every teacher should

take a look at and make sure to have notifications set up in a way that will maximize their efficiency within the course.

Using the text editor

Moodle provides a text editor, to enter the learning content text.

Clicking on Preferences, there is an option called ***Editor Preferences***. Here we have the option to select the text editor that we'd like to use. You can select the ATTO HTML editor, the TinyMCE HTML editor or just the plain text area. Both ATTO and TinyMCE editors are very powerful.

Let's take a look at how they work. To use and test it you need to select an option requiring text editing, for example under the ***latest news*** block we can click on ***Add a new topic*** where we can enter a message with our text editor. Now the style of text editor will likely be familiar to you already, because it mostly works like Word or other popular word processors, giving you the ability to choose fonts and its size, format text, decide alignment, highlight words in bold, italic and so on.

What is important is that you can immediately have a glance of how the final result will be so that you can set the text messages and layout exactly how you'd like it.

Being conceived to enter learning material, ATTO has features to write different equations, including ones for square roots and for fractions. It is also possible to enter Tables and customize them, setting colours and style for the borders.

Using Moodle's in-line help

You'll notice that when navigating in a Moodle page, you'll often see a circle with a question mark inside of it. This is Moodle's inline help, and it can be very helpful. Clicking on the question mark, an explanation of that feature will pop up, letting you know more about it. For example, going to ***Edit Profile***, there is an area denominated "Description", clicking on the inline help, it will say, "This box enables you to enter some text about yourself, which will then be displayed on your profile page for others to view." If I click the "X" I can get rid of it. The question mark next to our picture let us know that we're able to put a .jpeg or .png file here, and that it will be cropped to a 100x100 pixel image.

Moodle is a quite complex platform, with a lot of features to explore, in-line help is a powerful tool to have a hint of what each button and option does.

Creating a course

In Moodle Administrator have the ability to create course shells and assign users the role of Teachers. So, teachers will find in the Navigation block the shell (empty structure) of a course that they can feed with learning material, resources and activities.

Course shells set up by administrators have already a name and appear in the Navigation block from where teacher can click to start customization

The appearance of the shell largely depends on how administrators have set up it. Let's imagine our administrator has organized the course, but teachers have the ability to edit the course and change its structure. If you have Teacher Manager permissions in the course, you should be able to turn Editing on.

In the upper right corner, you can see a Turn Editing On button. This means that you have Editing permissions in this course. In the Administrative block, you'll also see a link for turning Editing on. If for some reason, you're not able to edit the course, you'll need to talk to your Site Administrator. On the left and right of the screen there are blocks that permit to add functionality and customize the course.

In the centre of the screen are the different sections or Units, that the course has been divided up into.

If we see sections identified by dates, (i.e 25th of November to December 1st, and so on) it means that the course is currently broken up into weeks. It is however possible to change this structure and organize your class into chapters, units, quarters or whatever you want to organize it.

To do it we need to navigate to the left-hand side in the administration block and click on **Edit Settings**. This will bring up all of our course settings, and there are a lot of them. There's a lot of settings all over in Moodle, which is a good thing because it allows us to customize our course the way we like it. Now we don't have time to cover all of the settings, but remember to take advantage of Moodle's in-line help, which is represented by a question mark with a circle around it.

For instance, here under Course Short Name, if we click on the in-line help, it lets me know that the short name of the course is displayed in the navigation and is used in the subject line of course email messages, so we need to adjust accordingly. So for this, in the settings, we can adjust the name of the course.

One very important thing in the General tab is the visibility. This is whether the course will appear visible to students, if we are not done completing the course, we can click on Hide and the course will not be visible to students (teachers will see it grayed out, to indicate the course is existing but not available to students).

Another setting is ability to adjust the course start date, the description and, very important, the **course format**, that dictates the way our course will be structured.

In our previous example, our blank course was set up as weeks. If this isn't the structure that we want, we can make this change in the course format settings, where we can select a topics format, which will allow me to list different topics or units. It is of course possible to define the number of different topics.

In the settings we can also adjust the appearance of our course. The most important thing here is whether we want to show the grade book to students or we can adjust the maximum

upload size for files and uploads. By default it is set to the max of 32 megabytes. However, we could lower that.

When we are done, just click Save and Return and we will see that our dashboard has now been changed, instead of the different weeks, we have the topics.

Adjusting course settings appropriately is a delicate task that requires time but will save you a lot of time and frustration as your course gets going.

Another way to customize our course page is define which **blocks** display on course page.

On the left-hand side and the right-hand side, I notice different blocks set up by Administrator in the course shell: they can be customized, keeping the blocks we want to make available and eliminating those we do not want our students use.

There are also other blocks that we may decide worth showing.

To do so, let's click "Turn editing on." You'll notice some buttons, such as "Edit," or "Add activities." will appear on existing blocks. We also have some additional icons that on our default blocks.

If I click the plus symbol the corresponding block is expanded. There is an icon to dock that block or another icon that permits to move a block in a different position, to position it in the upper or lower part of the page or to move from right hand to left end side and vice versa.

Clicking on the gear icon we have the ability to configure the block, to delete it or to change the permissions. Some blocks are so important that we cannot delete them (i.e. Navigation and Administration) but others can be deleted if we want to. For instance, we can get rid of the Search Forums block, if our course will not have a Forum.

We can also add more blocks. So if you have a specific need for a block, you can add different types of blocks on the Moodle platform. Scrolling down, on the left-hand side, there is a block here titled, "**Add a Block**," with a drop-down menu. Clicking here, you can see the number of different blocks that we can add.

We can add Activities, Blog Menus, Online Users, Calendar and a number of other things.

Customizing sections and adding content to a course

In previous sections we have learned how to structure our course in a number of different topics. We are now ready to customize these; however, we will not see how to make changes to them if we do not click on **Turn editing on**. Once done, a bunch of buttons and icons will appear, allowing us to customize this page.

Above Topic 1, there is a section that appears. This is the Introduction section. We can make changes to this or customize it by clicking on the top "Edit" button and then "Edit section." If we want to change the section name, we are unable to click in the text box until we uncheck the "Use default section name." When we do we are able to enter our own title.

We can edit text and add an introduction to our course or we can open a document and copy and paste what we need in that section.

We can also add a picture: using the Atto text editor we can click on the Image icon and browse our hard disk to load the image we want to use.

Beside each topic there is an **Edit topic** button that lets us load chapter content.

Now again, it's going to say Topic 1 as a default name and if we want to change this, we need to uncheck the "Use default section name." As for the Introduction we can edit the text box or copy and paste content we have already saved in a different document. Before leaving this page let's not forget to click on "Save changes." On the main page you'll see that the content of Topic 1 has changed.

If I want to move topics around, we have to click on the icon with arrows going in four different directions, holding it down and dragging we can change topic position in our course page.

Continuing to add the rest of my topics, we will complete our course.

However, as you can see, below each one of the sections, there is another active link that says **Add an activity or resource**. This is where we can add different resources to the topics that we can deliver to the students. If I click on it, a wide variety of activities and resources will pop up.

Under Activities we have Assignments, Chats, we have Forums, Glossaries, Quizzes and much more. Under Resources, we have Books, Files, Folders, Labels, Pages, URL's and more.

We will discuss Resources and Activities in further detail in another module.

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2.2.2 Topic 2 - Course Resources

In order to add or edit resources (or activities), we need to make sure that editing is turned on. At the top on the right-hand side we have to click **Turn editing on**.

If the lesson already contains resources previously added, you'll notice that there are **Edit** buttons that appear next to many of these resources. Once your resources are added you have the option to edit them by clicking on the drop-down menu. Clicking on **Edit** we are allowed to edit the settings, like indenting the resource in the lesson page or hiding it so that it's not visible for students. It is possible to duplicate a resource, assign roles, or delete it.

At the bottom of each section there will be a clickable link titled **Add an activity or resource**. Once we click on this, a pop up will appear, showing the different activities and resources available to be added, including Assignments, Chats, Forums, Glossary, Quiz, Books, Files, Folders and many other things.

Moodle provides help and instruction on the platform as well. For each of these activities and resources it is possible to single click on them and get more information on how the work on the panel at the right side.

This way we get information about how we can create these resources and use them in our course.

Activities and resources are a powerful way to add customized content to our course to share with our students.

Using files and URLs

Moodle allows teachers to easily upload and share files such as presentations, videos, HTML pages, and more. For many of the files, they'll appear directly in the course interface. If the file is unable to be shown in the course interface, students will be prompted to download it. Let's see how to add files. First of all we will need to **Turn editing on**.

In the upper right, we can turn it on and scroll back down to click on **Add an activity or resource**. A panel with all possible Resources and Activities will open, we will have to double-click on **File**. A dialog box with resource settings will pop up and from here we can name the file and add a description if we'd like. If we want that description to appear on the course page, we need to click the checkbox below.

Clicking on **Select File** area we can navigate to our PC and select the presentation we want to add. Clicking on the word **Display** it is possible to adjust the appearance, for example whether or not we want it to be embedded, if we want to force students to download it, if we want it to open up in a pop-up, or whatever we want. Next we can decide if we want to show the size, the type, and some other things.

Below we can also decide whether or not we want it to be visible to students.

It is necessary to click **Save and return to course** to make changes effective.

To see how it will appear to students it is necessary to go to the top and **turn editing off**.

Be sure to consider your students' digital access. Students will need to have the correct program to open the files that you share. For instance, you may want to share PDFs which almost all devices can open, as opposed to a Microsoft Word document, in which the students would need to own and access Microsoft Word in order to open it.

URL is another way to provide resources to students. A URL can be added to show anything that's available online. For example, we can add a URL to a website that students can use as a resource. Again it needs to **turn editing back on**. Click on Add an activity or resource, scroll down and select URL, all the way at the bottom. It will ask to give a title and a description. Below we can enter in the URL. It just needs to copy that URL from a web browser and paste it. For appearance, we can choose to appear in a pop-up. Click **Save and return to course** to save changes and **Turn editing off** to see how it will appear for students.

Using labels

Labels are an important resource on Moodle as they allow to quickly add text, images, multimedia, even embed HTML code on our course page. We can use labels to deliver resources such as audio or video files which students can then watch directly from course web page. Let's say we want to add a quick video that we'd like our students to watch. In order to do this, we first need to **Turn editing on** in the upper right corner. Then we have to navigate down to click on **Add an activity or resource**.

From here, scroll down to RESOURCES and double click on **Label**. It provides us with a text editor and inside is where we can create the label that we want to appear. On top of text area there are icons of the media we can insert, click on the button that allows inserting a video. A popup dialog box will appear and all it needs is copying a YouTube URL we want to add, then click **Insert media**.

You will see, a blue description because it represents a link to that URL. Below we have one more setting: we can decide to Hide this, or to Show it and make it visible to students.

Click on **Save and return to course** to save changes. A new video will appear on our course page. In order to see it the way that students will, we need to **Turn editing off**.

If I want to move it, say to the top of the section, I need to first turn editing back on, and then grab the icon with four arrows and drag this to the top.

Labels are not just video, also images or audios or other medias can be added to our course page in the same way.

Creating pages and books

Besides sharing files and links as resources, we want to customize our content even more, and tie several resources together.

We can create pages and books on the Moodle platform and use them in your course.

Pages allow you to add text, links, images, audio, video, and even embed HTML code. By using the Text Editor, we can create one single resource as a page. To build a page you first need to **Turn editing on**. A Page is a resource, so once again we have to click on **Add an Activity** or **Resource**.

On the panel that appears on the screen double-click on Page. The first thing we need to do is to title our page and if we like, leave a description. Below, we have the area where we can enter our page content. This is the Text Editor where we're actually going to create our whole page.

Below that text, we can decide to add a YouTube video, so we have to click on the insert media button, get the URL to the video and copy it in the edit box. We can also enter some more text if we want it to appear after the video.

Below this we can insert one more video or other media, so we can reiterate the same procedure until we have added all the content we think our page should made of.

Let's **Save and Return to Course** to make Moodle accept changes.

Turn editing off, we can click on our page to bring it up within the Moodle platform.

However, if we want to include a large amount of text with media files embedded, Pages will become too crowded and difficult to load. In this case, it is better to create a Book. Books allow us to create pages and organize them into chapters and sub-chapters for students to navigate. They're obviously more time-consuming to design, but can act as a great resource once created.

To add a book, we have again to add a resource, but this time we will double click on Book.

We can title our book and give a description. In the appearance section, we can choose whether we want our chapters to be formatted by numbers, bullets, or if we just want them indented. We can also choose a navigation style through images or texts.

Let's **Save and Return to Course** to make Moodle accept changes.

At this point we really haven't added anything to the book yet, but on our course page we will see that a book resource has been created,

Clicking on it Moodle gives us the opportunity to design a new page that will constitutes the first chapter of our book. The way we make this page is exactly the same we have seen for Page creation. However, when we save a page, you'll notice on the left-hand side that a block is created.

It is called **Table of Contents** and it shows our first chapter.

Now, in order to add another chapter, which essentially is just linking another page, we can click on the plus button on the right-hand side. It now gives us the option to create a second page/chapter for our book.

This is a great way to organize our pages together in a very systematic way to be delivered to our students.

Organizing resources in folders

In our Moodle course, if you begin to add too many files to a section, it can become cluttered and overwhelming for students to use. So if for some reason you have a large number of files that you'd like to share, for instance, PDF files, you can use folders within Moodle to organize them. Let's **Turn editing on** and **Add an activity or resource**.

In our resource panel let's select Folder. We will be requested to name the folder and give a short description of what it will contain, this is very important to give students a hint on what they would find in this folder. We can also choose to display that on the course page or keep it hidden for the moment, but most of all we have the possibility to click in the Content area to add documents. We will be allowed to browse our pc, server or even add a URL to reach the PDF we want to add in our folder.

We have the ability to give a name to our PDF in the Save As area, then click on **Upload this file**.

You will see that file has now been added in the Content area. To add another PDF we have to choose the Add file button on the left-hand side. It is highly recommended to give these files clear names so that students know exactly what they are.

Once we have entered all PDF we want our folder made of, let's click on **Save and return to course** to save changes.

Let's **Turn editing off** to get how students will see it. You will notice that there is a folder with

a description below. If I click on the folder, it will bring up the articles, or files that exist inside of there. When students click on these, they will start a download in order to access them.

It is recommended to use folders in your sections if you have many files that you want to share. They can help to keep it organized and make the page easier to navigate as well as easier to load.

References

Jason Cole, Helen Foster (2007). "Using Moodle: Teaching with the Popular Open Source Course Management System". O'Reilly Media. 284 pages

Susan Smith Nash, William Rice (2018). "Moodle 3 E-Learning Course Development: Create highly engaging e-learning courses with Moodle 3". Packt Publishing. 432 pages

William Rice (2015). "Moodle E-Learning Course Development". Packt Publishing. 350 pages

Radana Dvorak (2011). "Moodle For Dummies". For Dummies. 416 pages

Susan Smith Nash (2016). "Moodle 3.x Teaching Techniques". Packt Publishing. 240 pages

2.2.3 Topic 3 - Course Activities

The way teachers manage activities is exactly the same as with resources: there is a button to assign resources and activities.

An additional panel pops up presenting the list of resources and activities offered by Moodle and from which a teacher can choose.

Similarly to resources, to add or edit activities, we need to make sure that editing is turned on.

At the top on the right-hand side we have to click **Turn editing on**.

If the lesson already contains activities previously added, you'll notice that there are Edit buttons that appear next to many of these activities. Once your activities are added you have the option to edit them by clicking on the drop-down menu. Clicking on **Edit** we are allowed to edit the settings, like indenting the activity in the lesson page or hiding it so that it's not visible for students. It is possible to duplicate an activity, assign roles, or delete it.

At the bottom of each section there will be a clickable link titled **Add an activity or resource**. Once we click on this, a pop up will appear, showing the different activities and resources available to be added, including Assignments, Forums, Glossary, Quiz, Surveys and many other options.

Moodle provides help and instruction on the platform as well. For each of these activities it is possible to single click on them and get more information on how the work on the panel at the right side.

This way we get information about how we can create these activities and use them in our course.

Assignments

Assignments are an important part of most courses. They allow students the opportunity to demonstrate their understanding of the content. And they allow teachers an opportunity to receive feedback on how well their students are learning as well as an opportunity to give students feedback regarding their learning.

To add an assignment we first need to **Turn editing on**. At the end of each section we will see the button **Add an activity or resource** that will open a panel from where we will be able to double-click on Assignment.

Assignments must be named and optionally described with the text we can insert in the description area.

Although optional, a description is somewhat necessary, because is giving students the instructions on what to do, read, watch and learn to complete the assignment. The text area, just like the resource Page, can be populated with links, videos, text and a

whole set of resources the students need to go through before writing the summary to be submitted to the teacher.

Teachers can also add additional files. So if they wanted to upload an assignment or upload resources that students had to refer to for the assignment, they could do that as well. There are also a bunch of settings for your assignments. The first is for availability and it allows us to set a submission date that students can begin submitting the assignment on.

After that is the due date, followed by a cut-off date. The cut-off date is just a time when students will no longer be able to submit it. If you don't want a cut-off date because you want students to turn it in, even if it's late, just leave this unchecked. If you didn't want a submission date or a due date, you could also uncheck them.

Below these, we have submission types. Very important thing here is whether or not we would like the students to complete the assignment in the text editor on Moodle or upload a file.

If we want the students to complete it within the text editor, we need to click **Online text**. **File submission** is the option for teachers willing students uploading their work in a separate file. For this option, two choices are relevant: the number of uploaded files and the submission size. We have the opportunity to enable word limits for their summaries.

Under **Submission settings**, we first can require students to click a submit button. It can be set to **Yes** or **No**.

We can decide if they have unlimited attempts. We can choose whether or not we want to turn on **Groups** and have students be able to submit assignments in groups. We can set notifications that will let us know when assignments are turned in and we can also have one that notifies graders about late submissions. For grades, we can choose whether we want this to be points, scale or not graded. We can scale the grades, for example 1-10 or 1-100.

Finally, at the bottom, we want to make sure this is visible to students if it's ready to go out. When all is done, click **Save and return to course**

Creating a question bank

Throughout the year, teachers have the ability to create assessment questions and store them in the Question bank, so that they can easily integrate these questions into tests and quizzes. We can access our question bank in the Administration Block on the left hand side (configuration of blocks depends on how Administrator has set the course page).

In Administrator block we have a button called **Question bank**.

The first thing we can do is select a category, that is whether or not we'd like to be in a general question bank or one that's specific to our course.

Next we can decide whether or not we want to show question text in the question list, if we can show the questions from sub-categories and if we can also show old questions.

At the beginning however we don't have any questions in our question bank: we have to populate it creating questions.

To do so we need to click on **Create a new question**. A popup menu appears with all the different types of assessment questions that we can create. Including some calculation questions, which we'd use numbers. There are drag and drop questions, essays, matching, multiple choice and more. Now, for any of these questions, if you click on the type, it will give you a description on the right hand side. So again, Moodle is very helpful on explaining what each of these question types are.

All question types, there are some basic settings we have to go through.

The default category is adding the newly created questions in the question bank for our course. We also need to create question name.

This will really help in the question bank when you want to go find a question to include on a quiz or test. Next, in the question text, we need to put the directions for the question. As an example of question type let's imagine willing to add a **Select missing words**.

In the direction area we need to enter the text for the question. As this is a fill-in-the-blank-type question, text will have blanks where students are going to place words that they can select from. Words to be inserted must be written below under Choice 1, Choice 2 and Choice 3 (assuming the question text has three blank areas)

Now we have to tell Moodle the correct positions for the three choices. To do so in the question text instead of the blanks we need to add [[1]] if we mean that Choice 1 is the correct word for that position. The same we do adding [[2]] for Choice 2 position and [[3]] for Choice 3 position.

Further settings are available before saving our question.

Under multiple tries, we can decide whether or not we want students to have a second opportunity to place the item in the correct place. And we can even make it so that they have

a certain amount of points taken away if they need a second chance. For example, we can set 33.33, meaning that will be the penalty if they do need a second chance. We can also enter

a hint.

When done let's click, "Save changes." So, the question is created.

We can preview it and try the test our own.

At this point we have added a question to our Question bank. Adding an entire set of questions we can create quiz to asses students preparation.

Creating quiz

Assessing students' progress is an important part of most courses. In Moodle teachers have the ability to create and share quizzes within course. In order to create a quiz, we first need to make sure that editing is turned on. Then we need to navigate to the section that we want to include the quiz in. Going down to the bottom of that section we can click on **Add an activity or resource**. From here, select **Quiz** and double click.

We're not actually going to include any questions yet, but again, just setting up the settings and the framework. First of all, we need to type in the title and a description. We can select **Timing** if there is a certain time that we want the quiz to be available to students or a certain time when it will close, that they no longer have access.

You can also set a Time limit. If you only want students to have, say, 20 minutes to complete it. It's also important to decide what you want to happen when time expires. In other words, *Open attempts*, *Submitted automatically after a grace period*, or attempts must be *Submitted before time expires or they're not counted*.

Next, for Grade, we can decide if we want to put it in a category, if we would like students to have multiple attempts at the quiz, and if they do, how we'll grade that (Highest grade, Average, First or Last attempt).

For Layout, we can decide to have every question on a new page or a number of questions in the same page.

Let's Save and return to course when finished.

Now, here we have our Quiz Structure, but we haven't yet entered any questions. If we click on it, we can see the settings we added in the structure like a Time limit of 20 minutes. It also says here that No questions have been added yet, so we'll click on **Edit quiz**.

As we can see, there's nothing here, but on the right-hand side, we are allowed to click on **Add** and then select from a **New question**, a **Question bank**, or a **Random question**. Although we have prepared a question bank to choose from, we are going to select a new question.

I'll choose a Multiple choice one. I'll click Add. It allows us to set up this question. They have the possibility to create here a question from scratch.

If we do so, you'll be requested to name your questions because each of these will be saved in the question bank, so you can access them later. You're going to want to be able to recognize them when you see the names.

Below, we can put the question text. We can choose whether we want **One correct answer** or if there are **Multiple answers** allowed.

We can decide if we want to Shuffle the choices and how we want to **Number the choices**: Letters or Roman numerals. Then we add Choices where some can be correct and others wrong (in case of multiple choices) or one correct and all others wrong (in case of One correct answer).

If a choice is wrong, we have to select None as grade; for correct choices we need to grade it as 100%

We do have the option to give partial credit, so if there was an answer that you thought was a good one, but didn't deserve full credit, you could issue partial credit.

You could give Feedback for questions, too. In case of wrong answer, we can give a hint as feedback.

Let's click on **Save changes** when done.

As we said previously, we can add a question from our question bank.

If we click here, it will bring us to our question bank including the questions that we already entered. We can also drag our questions to reorder them.

When done, just click on **Save**.

Now let's navigate back to our course, we can click on the quiz and see that we're able to attempt it.

If we click **Attempt it now**, it will bring up our questions.

Managing a Forum

Class discussions is a great way to engage students in learning. As well as in-class discussions, online discussions are important and require a different set of skills. It's not rare to see a quiet student speak up more in an online discussion or to have students working on their writing skills while in a discussion. Moodle allows you to create online discussions through their Forum activity. First, it's necessary to set editing on. It is possible to add a forum in any section of our page, so we need to click on **Add an activity or resource** by the section we want it to appear: the usual panel of Resources and Activities will appear and we will have to choose **Forum**.

At the top, we need to give a name to our Forum. Then, we can put a Description. This is not where we put our actual discussion question. This Description is simply describing the Forum.

Then, we have to choose the Forum type. There are several different types:

- A single simple discussion in which the teacher would post one question, and students can respond to it.
- Each person posts one discussion in which the teacher and each student has the opportunity to post a discussion.
- Q and A forum which has students answer a question and requires them to put their answer before seeing the answers of other students.
- Standard forum displayed in blog-like format

- Standard forum for general use which allows anyone to create a discussion at any time

We can decide if we want students to be able to add attachments, and if so, how many can they add and what size

We can display a word count, so students stay conscious of it.

Subscriptions and tracking allow students to subscribe to the Forum, and also for a teacher to track who is reading them. Under Grades, we can set the category we would like it to be in if we'd like to grade it.

If you do, will open Ratings. Here's where it allows you to decide how you want to rate this forum. If you leave it at No rating, students are simply participating in the discussion without worrying about a grade.

We can set a time that the discussion will open and a time that it will end. Again, we can make it visible to students or hide it. When done click on **Save and display**. When I do this, we're going to see our Forum item, but here's where we need to add the text or the question. Let's imagine we added a "Q and A forum" and click on **Add a new question**. This way we'll be allowed to type in a question.

Once done, we can choose to add an Attachment. Finally, we click on **Post to forum** so our post is successfully added. In the next 30 minutes we still can edit it and make changes, then it will be posted.

Clicking on that Forum, we can see that there is one post and opening it up, it asks the question that we have posted.

Creating choices and surveys

On the Moodle platform there are a couple ways for teachers to get feedback from students. This will help to improve teachers' instruction, as well as get to know students better, helping to build rapport, and allowing you to customize the student learning experience.

Choice and the Survey are the activities that we can utilize. If we want to add a Choice activity, let's open the activity panels in the usual way and choose the **Choice** option. We will be requested to name the choice we want to give students.

For example "How confident are you for the section above?"

We can also put the Description, useful if we want to add some context to the question. We can choose whether we want our answers to appear horizontally or vertically. Then we need to make some choices as far as can students update their choices. If for example they are allowed to give more than one answer to a question, in this case we can limit the number of responses.

Then let's click on Option 1: here's where we'll give the first choice to our students, for instance Very Confident, Fairly Confident, Not Sure, or Not Confident.

Then click on Availability, to adjust the times that this Choice will be open. It is possible to limit the date that they can start answering and a date that they need to have it answered by. Results is a very important section under Choice, because we have to decide what happens once students make their choices.

- Do not publish results to students
- Show results to students after they answer
- Show results to students only after the choice is closed
- Always show results to students

For privacy of results we can publish them anonymously or publish them with the student names. When done click **Save and display**, it will show how Choice will look like.

Another way to get feedback from students is through the use of **Surveys**.

Teachers do not create the surveys. The surveys are pre-populated by Moodle and contain some well-known surveys.

Let's create one clicking on **Add an activity or Resource** and choose **Survey**. As always a Survey needs a name, and here I'm just going to give it the title of my course, and then we'll have to choose the **Survey Type** that is the pre-populated survey that Moodle platform offers. We can choose between

- The Attitudes to Thinking and Learning Survey
- Critical Incidents
- The Constructivist Online Learning Environment Survey

Then click Save and display.

Notice that this survey was pre-populated, so the questions are already here. The purpose of this survey, as it says here, is to evaluate your students' attitudes towards thinking and learning, it may serve to get a feel for your students and their thoughts or opinions on learning.

Another survey is The Constructivist Online Learning Environment Survey (COLLES) the purpose of this survey is to understand how well online delivery enabled the student to learn. So, this is one that you'll want to give after the students have completed part of the course, or have received feedback on how they're doing in the course.

Setting a glossary

In order to conduct quality research about a topic it's important to be familiar with the associated vocabulary. In Moodle there is a nice resource called the **Glossary** which you can incorporate into your course. We can add a different Glossary in any section of our page, because we can add a Glossary as any other activity. As usual, we have to name our glossary and add a description if we'd like. Under Entries we have some decisions to make.

- Should our messages be automatically approved or do we want to have to moderate them.
- Whether or not we always want to allow editing
- Duplicate entries yes or no
- Whether or not we allow comments

Then we have some settings on Appearance, Grading and Rating of our Glossary. Each teacher can customize the Glossary according his preferences.

When done, click on **Save and display** and our glossary is then created. However, there aren't any terms that are in our glossary at this point yet. In order to add a term, we simply click on **Add a new entry**. Here we can type in the **Concept** and the **Definition**.

We can also add an attachment to let students see an image or a video that represents that term When done, click **Save changes**.

Now we have our first entry. Once we have a large number of terms we will be able to separate them by alphabetical order, or search for them up at the top.

References

Jason Cole, Helen Foster (2007). "Using Moodle: Teaching with the Popular Open Source Course Management System". O'Reilly Media. 284 pages

Susan Smith Nash, William Rice (2018). "Moodle 3 E-Learning Course Development: Create highly engaging e-learning courses with Moodle 3". Packt Publishing. 432 pages

William Rice (2015). "Moodle E-Learning Course Development". Packt Publishing. 350 pages

Radana Dvorak (2011). "Moodle For Dummies". For Dummies. 416 pages

Susan Smith Nash (2016). "Moodle 3.x Teaching Techniques". Packt Publishing. 240 pages

2.2.4 Topic 4 – Managing Course Participants

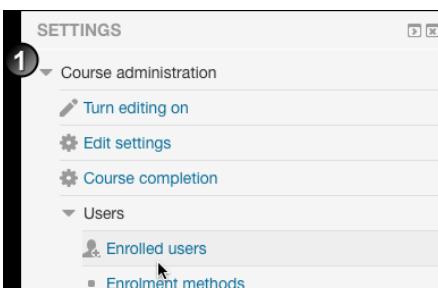
Enrolling students

Normally, at most institutions, the roster of students will already be entered and uploaded to your course, by Moodle administrator. So adding students is not something that a teacher has likely to worry about. Let's take a look, however, at how we can manually add students into our course and assign them the correct role and permissions.

We have to work in the Administrator Block of the Course Dashboard, usually it sits on the left side, of the screen (but it depends on how your administrator has customized the course)

There to click on ***Users***.

From here, select Enrolled Users



, and you'll notice the list of all students enrolled in the course.

If you, as a teacher, are the only enrolled person, it means that students were not pre-loaded and we have to add them all.

In order to add users, click on the ***Enroll Users*** button in the upper right hand.

This will show up a pop-up box with the list of students who have Moodle accounts set up for them at your specific institution.

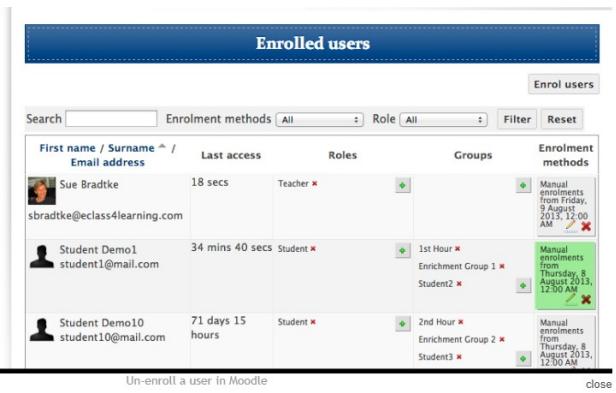
If a user does not have an account, there is not much you can do but talking to the Administrator to have them entered.

For students we want to add to our course and who already have an account setup in the system, we simply click on ***Enroll***.

However, before we finish enrolling users, we need to make sure that we are assigning them the correct role. With this we'll make sure they have the permissions we want them to have during the course. Normally we'll want them to be simple students, but we can also enroll someone as "non-editing teacher", to add, for example and assistant.

After this check go to the bottom and click on ***Finish enrolling Users***.

At this point, you'll notice that now we have students enrolled in our course, but if at any point we want to get rid of a student from the course, because they moved or dropped out of the course, we can always go on the far-right hand side and click the ***Unenrolled button***, which is represented by an X.



The screenshot shows the 'Enrolled users' page in Moodle. There are three users listed:

- Sue Bradtke**: Last access 18 secs, Role Teacher. Groups: None. Enrolment methods: Manual enrolments from Friday, 9 August 2013, 12:00 AM.
- Student Demo1**: Last access 34 mins 40 secs, Role Student. Groups: 1st Hour, Enrichment Group 1. Enrolment methods: Manual enrolments from Thursday, 8 August 2013, 12:00 AM.
- Student Demo10**: Last access 71 days 15 hours, Role Student. Groups: 2nd Hour, Enrichment Group 2. Enrolment methods: Manual enrolments from Thursday, 8 August 2013, 12:00 AM.

At the bottom, there are buttons for 'Un-enroll a user in Moodle' and 'close'.

Click here, we will be asked if we're sure and want to continue.

After confirmation, they're out of the course.

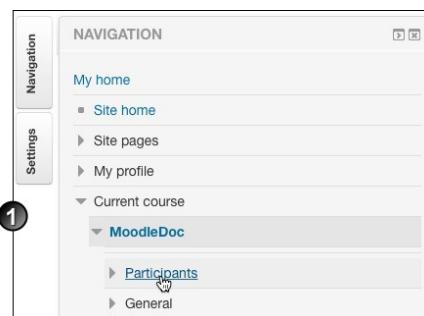
However, we are only able to delete students we've manually added to the course. If students were pre-loaded, we'll need to talk to an Administrator in order to have them removed.

Sending Messages

There may be times when teachers need to send a message to individual students or a particular group of students.

This is a different feature from the Forum, that we have discussed in a previous topic. Forums are announcements posted for the whole audience of students, here we are addressing single individuals or groups.

On the left-hand side we are likely to find the **Navigation block** (position can change according Administrator customization). And here under **My Courses** we need to expand the title of our course and select **Participants**. This will bring up a list of all participants that are enrolled into this particular course.

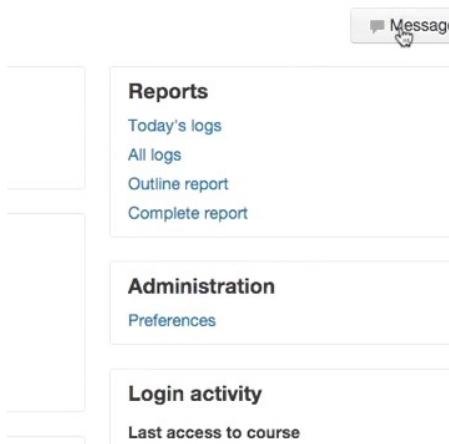


The screenshot shows the Moodle navigation block. On the left, there are 'Navigation' and 'Settings' tabs. In the main area, under 'NAVIGATION', there is a tree view:

- My home
- Site home
- Site pages
- My profile
- Current course
 - MoodleDoc
 - Participants (highlighted with a red circle)
 - General

Click on an individual student, for example George.

We will see a profile for George and in the top right corner we'll notice the Send Message button. Click on it.



An editing area will open and from there we edit a specific message to be sent directly to George.



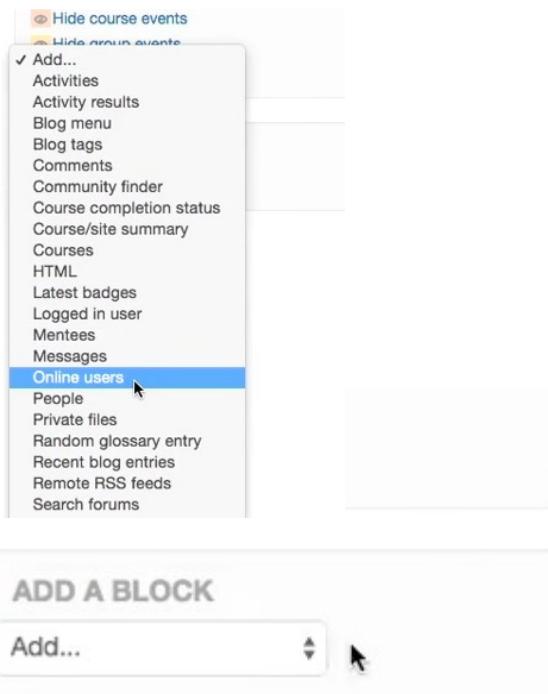
If we want to send a message to multiple students we can click on George, Henry, Elisabeth and Lydia, scroll down and in the drop-down menu click on ***Send a Message***.

This way we are able to send a message to all four of these recipients.

We can also click on Select All and send a direct message to everyone in the course.

Meeting students online

In Moodle, your students also can send messages to other students, as well as the teacher. There may be times when a student has a question and would like to ask a student who is currently online and logged in to the Moodle platform. Of course they can directly ask the teacher if he is online as well as a teacher can contact a student who is currently online.



The screenshot shows a dropdown menu from a Moodle course navigation bar. The menu includes options like Hide course events, Hide group events, Add..., Activities, Activity results, Blog menu, Blog tags, Comments, Community finder, Course completion status, Course/site summary, Courses, HTML, Latest badges, Logged in user, Mentees, Messages, and Online users. The 'Online users' option is highlighted with a blue selection bar.

ADD A BLOCK

Add... ▾

So it is important to have a way to know who's logged in to the Moodle platform at a specific time.

In order to do this, we can add a block, which will allow us to see who is currently logged in. For this purpose, we first need to make sure that editing is turned on, because we have to add a feature to the appearance of our Moodle course page.

Scrolling to the bottom on the left hand side, there should be a block titled **Add A Block**.

From here, I'll click the drop down menu, and select **Online Users**.

Now, if I scroll back to the bottom, we can see that the Online Users block has been added. The list will include the users who were online in the last five minutes.



ONLINE USERS

(last 5 minutes: 4)

 Mark Ellis	...
 Ms Wilson	...
 Mr C Wilson	...
 Barbara Gardner	...

We can click on the user name and his/her profile will open together with the Send Message button to forward a direct message, the same way we have seen for sending messages.

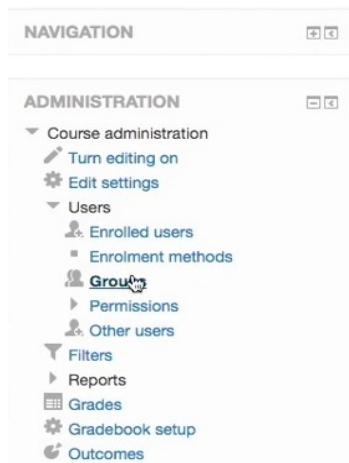
This is a great way to find out who's online at the current time in our course and open a direct instant channel of communication.

Managing groups

There may be times that a teacher needs to organize students into groups. Moodle platform offers an easy way to create groups.

In order to do this, navigate to the **Administration Block**, on the left-hand side.

From select Users, and then Groups



The screenshot shows the Moodle Administration Block. In the 'ADMINISTRATION' section, under the 'Users' category, the 'Groups' link is highlighted in blue, indicating it is selected or about to be selected.

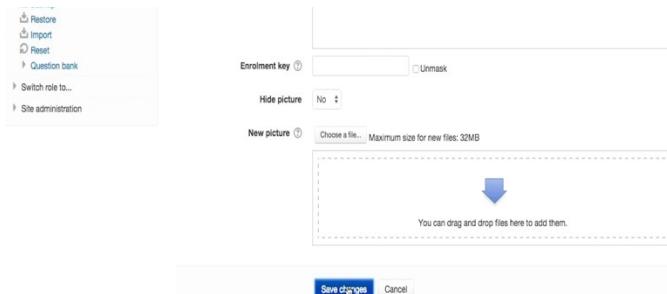
We have the ability to

- **Create Groups**
- **Auto-Create Groups**
- **Import Groups** (from another location)

Clicking on **Create Group** we are requested to name it.

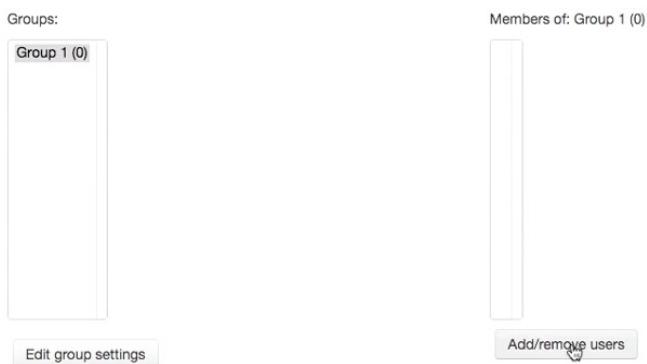
We can also give a group ID number as well as a description. Moodle offers also the possibility to create an enrollment key for students to be able to enroll into the group.

We can also add a picture to represent the group.

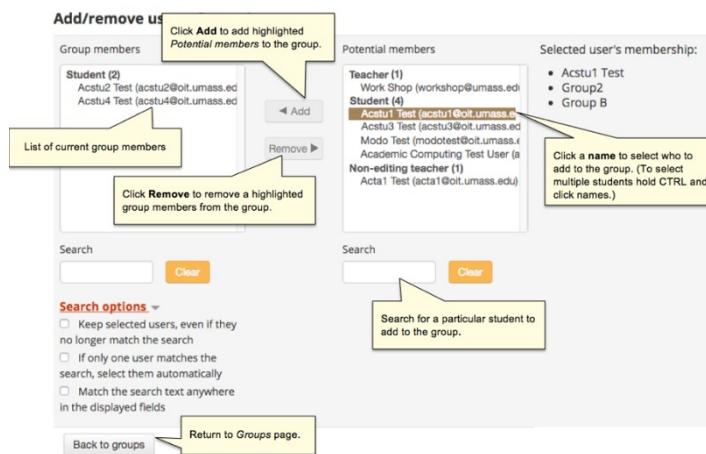


When done **Click Save Changes**.

However, there aren't any members yet in the group. In order to do this, on the right-hand side, scroll to the bottom, and click on **Add Remove Users**.



Moodle will generate a list of all students who are enrolled into the course. From here, we can click on students. And if I hold down the command or control button, I can select multiple students.



When done, click on **Add**. It will now add these students into that group.

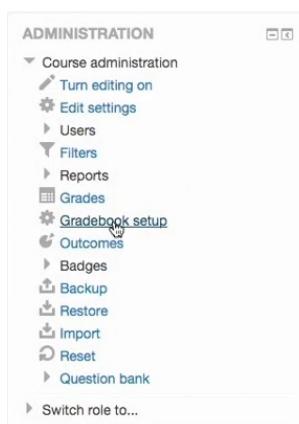
When finished, go to the bottom and click **Back To Groups**.

Working with gradebooks

Moodle offers a great tool to manage gradebooks.

Here we learn how to set up a gradebook for our course.

First, we need to access the gradebook. On the left-hand side, under the **Administration Block**, click on **Gradebook Setup**.



In Moodle, when we create an **assignment** or **quiz** that is worth points, it's automatically populated into the gradebooks. So you'll probably notice there are already assignments which appear in the Grades area.

If we click on one of the assignments, we get more information.

First, we can see the assignment. Down below we can see the **Grading Summary**



Essay #3
Visible groups All participants

Grading summary

Participants	15
Submitted	12
Needs grading	11
Due date	Tuesday, August 22, 2017, 12:00 AM
Time remaining	9 hours

[View all submissions](#) **Grade**

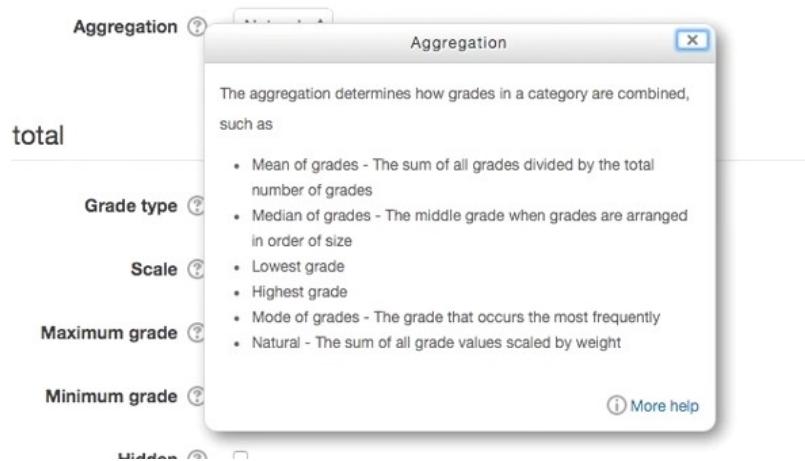
We can see the participants, how many submissions, the due date, as well as the time remaining. If we want to, we can click here to **View all submissions** and **Grade** them.

Below this we can see the **Submission status**. This is what the student will see from their perspective.

Notice that although we have already assignments, we don't have any grade categories yet. In order to add a grade category, I'll click the button on the bottom called **Add category**.

Moodle requires teacher give the category a name.

As **Aggregation** we have a number of choices like Mean of grades, Median of grades, Lowest or Highest grade. Default value is Natural, which means the sum of all grade values are scaled by weight.



Now depending on the setting that you have, you may be able to adjust some of this information, which includes the **Maximum and Minimum** grades, the **Grade Type**, and whether or not you want it to be **Hidden, Locked**, and **Weight** adjusted.

Category total

Grade type	<input type="button" value="Value"/>
Scale	<input type="button" value="Use no scale"/>
Maximum grade	<input type="text" value="100"/>
Minimum grade	<input type="text" value="0"/>
Hidden	<input type="checkbox"/>
Locked	<input type="checkbox"/>
Weight adjusted	<input type="checkbox"/>
Weight	<input type="text" value="0"/>

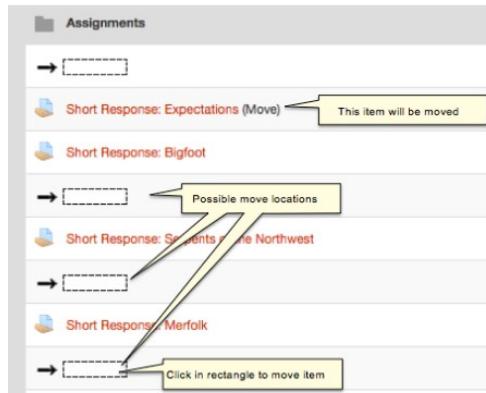
Show more...

Click on **Save changes**, and a category is created.

↳  Assignments	<input type="checkbox"/> 0.0	-	Edit	All / None
Σ Assignments total	0.00		Edit	
Σ Course total	20.00		Edit	

Categories are needed to group assignments or quiz or other types of tasks that teacher wants to weight homogenously.

If we want to move one of the assignments or categories, we can click on the icon to the left of it. Then Moodle will ask where we want to move it to.



Click any of the dashed rectangles to move the item to that location. The page will refresh showing the item in the new location

If we do not change it all different categories will be equally weighted. That means that if we have Category 1 and Category 2, grades for the assignments contained in both categories will count 50%.

If we want to change this, say for instance that I wanted Category 1 to be only worth 25% of the grade, when we click **Save changes**, the percentage for Category 1 will be adjusted to 75%, so the sum of all categories total 100%

Name	Weights ⓘ	Max grade	Actions
Sports PromotionWE (MG---355-000, 1718-SP)	-	-	Edit ▾
Quizzes	0.0	-	Edit ▾
Quiz 1, Chapter 1	<input type="checkbox"/> 16.667	5.00	Edit ▾
Quiz 4, Chapter 7	<input type="checkbox"/> 16.667	5.00	Edit ▾
Quiz 5, Chapter 8	<input type="checkbox"/> 16.667	5.00	Edit ▾
Quiz 6, Chapter 10	<input type="checkbox"/> 16.667	5.00	Edit ▾
Quiz 7, Chapter 11	<input type="checkbox"/> 16.667	5.00	Edit ▾
Quiz 8, Chapter 12	<input type="checkbox"/> 16.667	5.00	Edit ▾
Quizzes total	25.00	-	Edit ▾

What if we want to add a grade for something that wasn't completed in Moodle? This isn't a problem. Simply click on **Add Grade Item** at the bottom.

Move selected items to

Choose...

Add category
Add grade item
Add outcome item

Here we can enter the information. Let's say for instance, we want a "Research papers" assignment.

We can choose what type of grade I want it, for example we set it as **Value**. We set it to be worth 100 points, and then we have to decide the category we want it to be placed in. We can assign to existing categories or we can keep it General, because ideally we'd like to create a Research Papers category that I would put that in.

When over click **Save Changes**.

▼ Grade item

Item name	<input type="text"/>
Grade type	<input type="button" value="Value"/>
Scale	<input type="button" value="Use no scale"/>
Maximum grade	<input type="text" value="100.00"/> 
Minimum grade	<input type="text" value="0.00"/>
Hidden	<input type="checkbox"/>
Locked	<input type="checkbox"/>

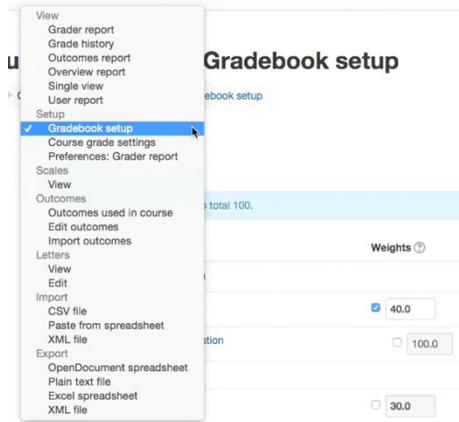
Then we'll have to create a new category (Category 3) to hold the new assignment and we'll have to weight Category 3. If we decide that Category 3 is worth 50%, other 2 categories will have their weights adjusted accordingly, so that we total 100%.

Categorizing gradebooks

In the previous section, we have seen how to set up the Moodle gradebook. Now, we're going to take a look at the **Grader Report** and **User Report**.

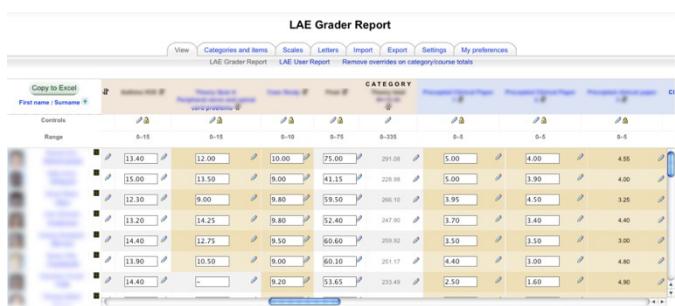
On the main page for the **Gradebook Setup** there's a dropdown menu at the top. Clicking on the dropdown menu, we can see that there are a large number of options we can choose.

We even have the ability to export our gradebook, and then import it into somewhere else, or we have the ability to import a CSV file so we can import grades from somewhere else into the Moodle platform. We will focus on at the **Grader Report**, which is at the top, and the **User Report**, which is a few options below it.



The screenshot shows the Moodle Gradebook setup page. On the left, a sidebar menu is open with the 'Gradebook setup' option selected. Other visible items in the sidebar include 'View', 'Setup', 'Scales', 'Import', and 'Export'. The main area displays a table with columns for 'Assignment' and 'Weights'. The total weight is shown as 100.00. The table has three rows, each with a weight of 40.00, 100.00, and 30.00 respectively.

Let's click on **Grader Report**. Here we can see that all the students in our course have been automatically populated into the gradebook. In the columns at the top we have the different assignments that count for points in the gradebook. Some things on Moodle, such as quizzes, will be automatically graded and entered into the gradebook. Other assignments, such as papers turned in by students, can be graded and given feedback within the student's assignment. Once the teacher has assigned a grade for it, the grade will be populated into the gradebook. At any time, if we want to manually enter a grade, or if we need to override an existing grade, we can do that as well.



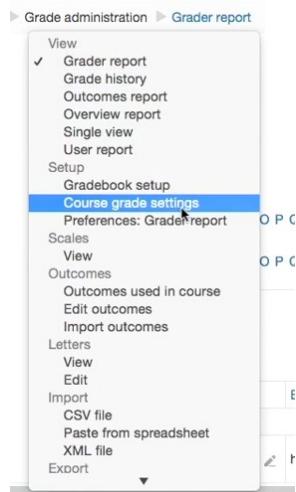
The screenshot shows the LAE Grader Report interface. At the top, there are tabs for 'Categories and items', 'Scales', 'Letters', 'Import', 'Export', 'Settings', and 'My preferences'. Below the tabs, there are buttons for 'Copy to Excel' and 'First name / Surname'. The main area is a grid where each row represents a student and each column represents an assignment. The grid contains numerical values representing grades, such as 13.40, 12.00, 10.00, etc. The grid is color-coded with yellow and orange cells.

First we'll **Turn Editing On** at the top and we'll see that all of these different grades open up and we're able to go in and enter them manually. When we're done, we'll click save changes, and the grades will be updated.

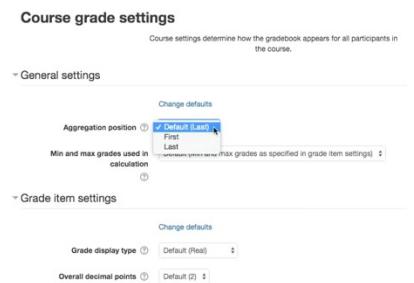
If we click on the edit icon, next to one of the assignments, it allows us to make some changes as well as to leave feedback or override a grade, and at the top we have the ability to select a single user and look at his grades individually.

Now finally, I want to navigate back to the main page of the grade setup, and at the top I'm going to navigate to **course grade settings**.





On this page we can adjust some of our settings. First we can select the aggregation position which means do we want our students' overall grade to appear first, in the beginning of their grades, or at the end.



Down below this we have quite a few more options and there are a ton of different settings you can have within the gradebook.

A teacher can customize this, so it fits your course the best, and if we have doubts on some of these individual things, we can always use the inline help.

At the bottom, for the **User Report**, we can choose what we want to show to students on that user report. Showing every single information can be overwhelming, so it is better to have a look at it and simply show the data we judge essential like the feedback and the grades. Every item can be shown or hidden according your choice in the dropdown menu.

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Jason Cole, Helen Foster (2007). "Using Moodle: Teaching with the Popular Open Source Course Management System". O'Reilly Media. 284 pages

Susan Smith Nash, William Rice (2018). "Moodle 3 E-Learning Course Development: Create highly engaging e-learning courses with Moodle 3". Packt Publishing. 432 pages

William Rice (2015). "Moodle E-Learning Course Development". Packt Publishing. 350 pages

Radana Dvorak (2011). "Moodle For Dummies". For Dummies. 416 pages

Susan Smith Nash (2016). "Moodle 3.x Teaching Techniques". Packt Publishing. 240 pages

2.3 Additional Reading

Title	Availability
Graduate Institute Geneva - Moodle for Teachers Reference Manual	http://graduateinstitute.ch/files/live/sites/iheid/files/sites/students/users/admin_it/public/it_publ/moodle_it_301_moodle_teachers_reference_manual_en.pdf
Sue Harper. "Moodle 2: Activity Tool Guide for Instructors"	https://www.scribd.com/document/88025373/Moodle-2-Activity-Tool-Guide-for-Instructors
Moodle: guida in italiano aggiornata al 2018	https://www.nextre.it/moodle-guida-italiano-2018/
Come usare Moodle	http://www.istitutoaletti.gov.it/piattaforma/guida.pdf

8.3. Module 3 – Web Design

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Syllabus – 3.1 Fundamentals of the Web

3.1 Fundamentals of the Web	
A module description	The main purpose of this part is introduction the trainees to the subject of the web pages. They will get to know how web pages work. During study of the evolution of the web and the web standards, the trainees will get familiar with definitions such as domain names, hosting and languages of the web. They will get to know how to design the architecture of the web pages, considering different groups of the users. The trainees get familiar with different characteristics of the audience and influence them on designing for the screen. Free domains and commonly used websites by schools will be used for practical exercises.
Intended learning outcomes	<p>1 On completion of this module you should be able to:</p> <ul style="list-style-type: none"> • understand how web pages work • distinguish between concepts domain names, hosting and languages of the web, considering the evolution of the web • separate structure, style, interactivity and design for the websites • designing for the screen
Learning activities	<ul style="list-style-type: none"> • watching 1 presentation video and 3 additional videos • exploring 1 obligatory and 2 optional reading material • doing 2 exercises • passing 1 test, contains 3 questions
Estimated duration	<p>Total workload is 4,5 hours including:</p> <ul style="list-style-type: none"> • 240 minutes for watching videos • 20 minutes for exploring obligatory reading

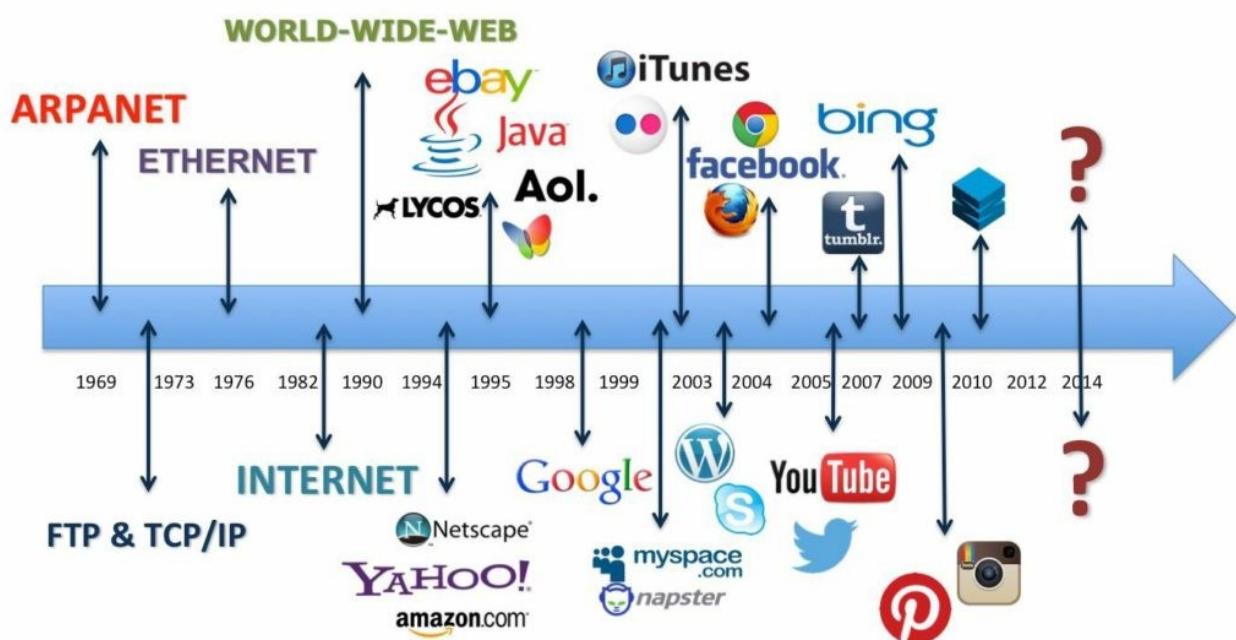
	material
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- 10 minutes for exercises

3.1 Fundamentals of the Web

Since the 1990's we live in the information society. Now, information is crucial for the development of mankind and society. Web pages are an important source of information. To understand how web pages work, we have to clear up some basics.

First of all, suitable environment for sharing the web pages is the World Wide Web (WWW). WWW is an information space where documents, such as web pages are identified by the specific addresses. Simply, an address is a unique reference to a WWW resource that specifies its location on a computer network and a mechanism for retrieving it. An address of the web page is displayed in an address bar of the web browser.



With the usage of the Hypertext Transfer Protocol (HTTP), the web page is retrieved by a web browser from the remote server, which actually is the computer where the web page is stored. In principle, mentioned protocol transfers a computer file, usually written in HyperText Markup Language (HTML). This language allows describing the content, appearance, and behavior of the web page. This file is a web page really. Today, HTML code of contemporary web pages is support by other languages and technologies, but more on that later.

To navigate between web pages are used embedded hyperlinks. Multiple web pages with a common domain name, a common theme, or both, make up a website. To make the website accessible via the World Wide Web, a web hosting service is needed.

Until 1991, the Internet contains a tiny number of web pages, because it was restricted to use only for research and education in the sciences and engineering. Until the end of 1993, there were not any graphical web browser for computers with Mac or Windows operating systems, because the World Wide Web protocols had only just been written. An individual or company would need their own computer or server to host a website.

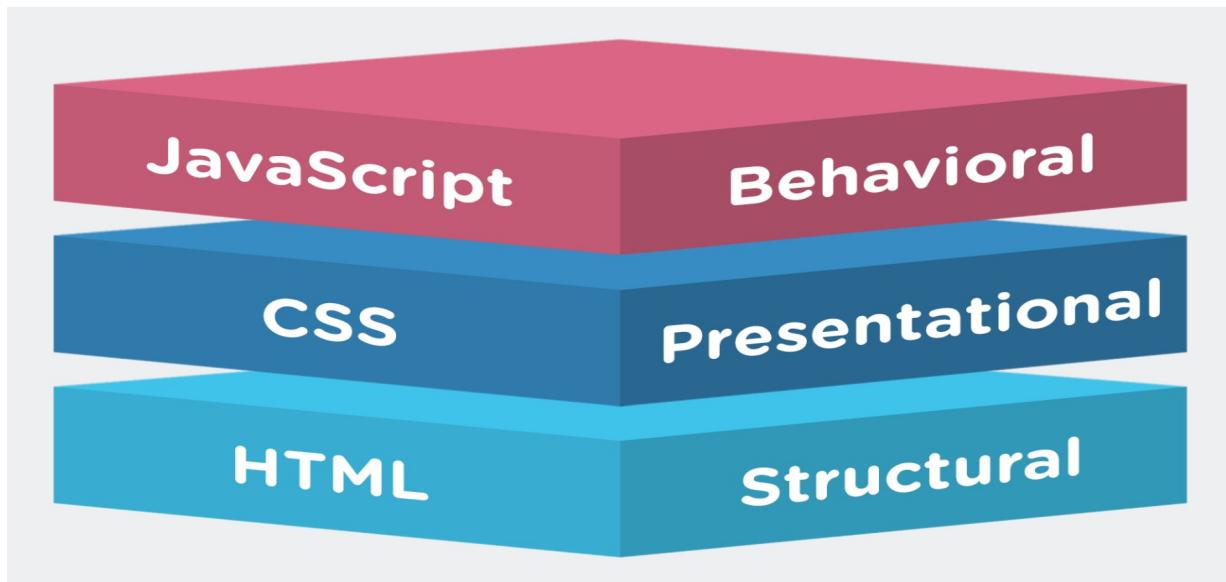
Considering these conditions, web hosting services began to offer to host users' websites on servers of these services, without the client needing to own the necessary equipment required to operate the website. So web hosts are companies that provide space on a server owned or leased for use by clients. These servers are connected to the Internet, typically in a data center of web Host Company.

We have to clear up a domain name idea, mentioned earlier. Domain names are easy to read and remember by the human addresses of servers, which contain web sites. Really, servers are clearly identified by their IP addresses (IP – Internet Protocol), but these addresses contain many numbers, so they are hard to remember by the human. Every time you enter some web page address, special servers, called Domain Name Servers (DNS) translate easy to understand domain names into hard to remember IP address. For example, instead of typing IP address 172.217.16.14, you can enter simply www.google.com.

As we mentioned earlier, HTML allow to describe the content, appearance and behavior of the web page, but today, the modern web pages is support by other technologies and languages. This idea allow to separate the structure, style and interactivity.

Generally, the structure and content of the web page is contained with HTML or XHTML (Extensible HyperText Markup Language).

The style and design of the web page is define in Cascading Style Sheets (CSS) files. The CSS file is a list of directives (rules) determining how the content of the selected element (or elements, defined in HTML or HTML file) should be displayed by the web browser. In this way, we can describe all the concepts responsible for the presentation of elements of web documents, including the font family, text color, margins, distance between lines, or even the position of the element relative to other elements or the browser window. Using CSS files give us much more possibilities for positioning elements on the web page than we are able to do using the HTML or XHTML file only.



To create the interactivity on the web page, we should use JavaScript language (JS) or Flash or Silverlight technologies, but the last one is no more supported in contemporary web browsers, such as Google Chrome, Mozilla Firefox and Microsoft Edge.

The subject of the style and design is closely related with the audience. Different groups of recipients have different, specific ways of perception. The best designed web pages are easy to use, meet the objective of the publisher and meet the expectations of a user obviously. Before you design your website, you should take several considerations.

Firstly, think about your target group. For example, there are different expectations from the bank web page and web page with funny videos. A bank site provides a sense of stability, professionalism and safety. Navigation on this web page should be easy to follow, because older users probably have less technical skills. On the other hand, an entertainment web page with funny videos should contain links to social networking service, due to you can expect, that teenage audience will be your target group. The appearance of this page should be trendy and attractive.

Secondly, you should always remember, that your web page users are impatient. If the web page does not display within a few seconds, users will leave them. To improve user experiences on your web page, you should use images with optimized size for faster loading. Images should be used when they add value to the content of the web page. Long content should be separated into multiple pages. Then pages loads faster.

Thirdly, almost every new user these days wants a mobile version of their website. Mobile devices, as well as computer screens, have many different resolutions and sizes. Creating a website version for each screen resolution and the new mobile device would be impossible, or at least impractical. Very useful and common solution to this problem is the responsive web design. This approach suggests that design and development should respond to the user's behavior and environmental conditions such as screen size, resolution, platform and orientation (portrait or landscape). As the user switches from their MacBook

to iPhone, the website should automatically switch to accommodate for size, resolution, and orientation. In the other words, the web page should automatically respond to the changes and user preferences.

1.1 ADDITIONAL READING MATERIALS

Title: Beginner's Guide to Responsive Web Design

Link: <http://blog.teamtreehouse.com/beginners-guide-to-responsive-web-design>

Title: 10 Usability Tips Based on Research Studies

Link: <https://web.archive.org/web/20130902031226/http://sixrevisions.com/usabilityaccessibility/10-usability-tips-based-on-research-studies/>

1.2 EXAMPLES OF INSPIRING EXPLAINER VIDEOS

Title of a video: **HTML Crash Course For Absolute Beginners**

A Video Description: An introduction to HTML. There is creating a cheat sheet with all of the common HTML5 tags, attributes, semantic markup etc, but without a focus on CSS.

Link: <https://www.youtube.com/watch?v=UB1O30fR-EE>

Title of a video: **CSS Crash Course For Absolute Beginners**

A Video Description: An introduction to CSS. There is creating a basic website layout, using styles, selectors, declarations, etc.

Link: <https://www.youtube.com/watch?v=yfoY53QXEnI>

Title of a video : **JavaScript Fundamentals For Beginners**

A Video Description: This is a mini-course on the fundamentals of not only JavaScript, but programming in general: variables & data types, loops, arrays, objects, functions, conditionals - if statements, switches, events, forms & validation

Link: <https://www.youtube.com/watch?v=vEROU2XtPR8>

Exercises

Exercise 1. Complete the sentences using the correct words from the list.

A ___ site provides a sense of stability, professionalism and safety. ___ on this web page should be ___ to follow, because older users probably have ___ technical skills. On the other hand, an ___ web page with funny videos should contain links to ___, due to you can expect, that ___ audience will be your target group. The appearance of this page should be trendy and ___.

bank, navigation, easy, less, entertainment, social networking service, teenage, attractive

Exercise 2. Complete the sentences using the correct words from the list.

The ___ file is a list of directives (rules) determining how the content of the selected element should be displayed by the web browser.

To create the interactivity on the web page, we should use ___ language.

Generally, the structure and content of the web page is contained with ___.

CSS, JavaScript, HTML

3.2 Website Planning, functionalities and main aspects of the frequently used systems

The best websites are created from precise, thorough planning and research before the design process starts. There are many important factors that should be looked at in-depth before going ahead with your site's production. It's worth putting the time into research and development, the benefits will be seen through your website.

One of the techniques of planning and managing used in website design is the content mapping. Content mapping is similar to mind maps, but it's focused on a site's content. It will help you explore and visualize your content. It is a visual technique that will help you organize and understand the content of a website. It can be a simple and valuable part of your site's overall content strategy. This short and simple guide should help you get started.

More specifically, to see your content as it relates to the goals of your client, the goals of your site users and all the other pieces of content in your website (as well as external websites), you should use content mapping. It is allowing you to spot gaps (and opportunities) in your content development strategy.

There are three main actions to take:

- An understanding of business goals: This includes knowing your clients well, which means you know what they want to get out of their website content.
- An understanding of the site's users: You know why users go to the website and what content the site's users need.
- An understanding of content requirements: You know the limitations and requirements (e.g., style, technical, legal, etc.) of the content you will serve.



These actions help you to create a good design for the website. Primarily good design is aesthetically but creates experiences that make people's lives easier also. The goals of the web design are organization of the information also, giving it meaning, and assembling it in a way that is visually attractive using available tools.

Strongly related with the web design is the print design and despite many differences, it is worthwhile to compare and contrast them. The web design and print design have the same goals, but they perform them in other ways. In the case of print design somebody is only the passive recipient of the content, but in the case of web design, somebody is the active user of them. This is a crucial concept to understand: the web is an active medium and the term to describe this design process is user interaction design.

When it comes to user interaction, you have to remember that offering too many options can be just as bad as offering not enough. If there are multiple options to the user, it is the designer's responsibility to make sure the user does not get lost. This problem is strongly related with the user experience term. The user experience is the entire sum of the user's interactions with a website.

However, in all cases, the designer's goal is to create sites that serve the needs of the users. This approach can be called the user-centered design. To understand what the client wants before you begin your work, you should always remember the stages of the planning process. These stages can generally be defined as:

- Defining goals and strategy – find a detailed answer to the question: „Why does this website need to exist?”
- Research – have some background on what visitors to a site might be expecting, considering how competitive sites are designed and what makes them so attractive to users.
- Information architecture – providing optimal navigation paths for the user which helping them to get from one requested page to another.
- Sketching – first draft of the website, considering three previous elements.
- Wireframes – an organization of the web page content and features, avoid the visual design. You can create them even on a paper or whiteboard or in a program like Microsoft Visio, Adobe Fireworks, Adobe Illustrator or Omnigraffle.
- Mockups – begin exploring the visual elements of a site, such as the typography, imagery (photographs and illustrations) or even the user interface elements (buttons, navigation bars).

It can be helpful to consider some fictitious users of your website also, by using the method called scenarios and characters. You can create several characters and suppose how they were introduced to your site, what are their intentions and priorities, and what they hope to achieve while using the site. By considering the experience through others' eyes, you can gain a more user-focused experienced.



Considering possible scenarios and characters, you should define the navigation design. Let's consider two types of website structures that will finally translate to the navigation menus: wide and deep. First, there is a wide navigation structure in which the main pages are listed horizontally.

In a wide navigation system, the main pages are all visible together. For small websites, this is often a logical choice. The user can easily jump to any of the main pages with a single click with the navigation bar on every page. But you must remember you are limited by the width of the screen so if you present too many options, the site may overwhelm or confuse the user. So the disadvantage of a wide navigation structure is that there may be limits to how much information can easily be displayed on the screen if there are too many categories.

An alternative method for organizing content on the website is deep navigation, which simplifies the main navigation and then group's related pages into categories. Simplified entry-points for the user are provided by the deep navigation. However, the designer must decide how to organize the pages inside these main links. Do not worry, drop-down menus and additional navigation menus are common solutions to this problem.

It is worth rethinking website navigation, due to the home page may not be as crucial as it once in the past. The user may visit another page of your website because the search engine can find them exactly. Every page on your website now becomes a home page, needing to welcome users into your site and encourage them to next visit.

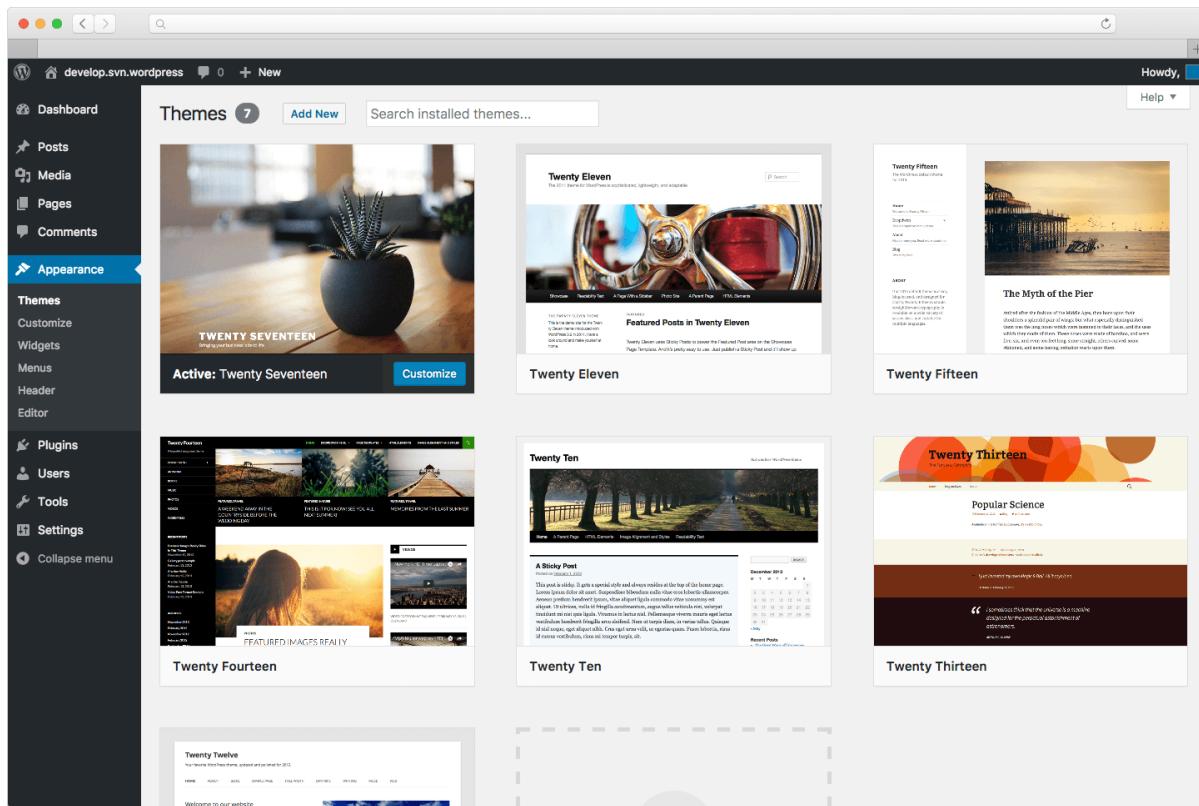
To evaluate how users interact with a website, useful is usability testing. It is related to, but distinct from, the field of design. Usability testing is the process of evaluating how users interact with a website. It often involves giving a user a task to make on a given site and then observing how well they complete the task, whether they can make it. If a user encounters difficulty or is confused by the required operations, these problems are noted and solutions are then inspected and integrated into the site.

Usually, for demonstration purposes, there are built prototypes. They differ from mockups and wireframes because they show functionality and often demonstrate how the user interacts with elements on a page. You can build a prototype using HTML, Flash animation, or a program such as Balsamiq Mockups or Microsoft SketchFlow.

You must remember that traditional mockups, wireframes and prototypes cannot fully account for the interactive nature of the web. Wireframing and prototyping software has evolved over the years, and a new breed of software and web applications are making the interactive prototyping possible. These include elements such as rollover buttons, working form elements, the ability to update common page elements quickly, and simple animation. To create interactive prototypes you can use software such as Adobe Fireworks, Microsoft SketchFlow or EightShapes Unify.

The planning stage can be a fun part of the site creation process because this is where you can propose those crazy ideas that may never make it onto the final site. So be creative during the creative process. Remember that in the early stages of site development, cooperation is important. Whether it involves user testing or receiving feedback from a wireframe, if you learn how to cooperate and incorporate good ideas into your design, your final product will succeed.

Creating a WordPress page is very similar to creating a post. Just remember that pages are invented for static content. To get started adding a new page to your WordPress site, find the **Pages** menu in the WordPress Dashboard Navigation menu. Click **Add new**. The WordPress page editor looks almost same to the post editor, except for a few different boxes situated on the right side of the screen. Add the title of the page, like **About**. **Note:** If you have pretty permalinks set up, the title of your page will also be the WWW address slug. Next, add some content. The **Publish** section of the page editor is closely the same as for writing posts. When you're ready to publish, you can either publish immediately, save this or a draft, or schedule the page to be published later. The **Page Attributes** section applies a parent page and template to your new page. For the **Parent** section, you can organize your pages into hierarchies. For example, you could create this new page with additional pages under it. There are no limits to how many levels you can nest pages. Some WordPress themes have custom page templates, so the next Template section allows you to apply a template to your new page. The Order box allows you to order your page numerically. Pages are generally ordered alphabetically, but you can choose your own order by entering a number in this field. Preview the page one last time, then click **Publish**. You've added a new page to your WordPress site.



To get started creating your first WordPress post, locate the **Posts** menu in the left-hand side of the WordPress Dashboard. You can either hover over the Posts link or click to expand it to reveal the submenu. The **Add New Posts** page can also be found from the **+ New** link in the WordPress Admin Bar, also. Click the **Add New** link. Now you'll see the **Add New Post page** where you can create your first post. The first box is where you'll want to enter the title of your post. Next is the **Post formatting section or post editor**. This is where you'll indeed type the content of your post. If you look on the right side of the box, you'll see two tabs. There are two ways of editing posts: **Visual** and **Text**. The **Visual tab** will bring up the visual WYSIWYG editor. WYSIWYG just means “**what you see is what you get.**” Here you'll see a formatting toolbar with lots of options for formatting your posts. If you're familiar with Microsoft Word or any other word processing software, most of these icons should look familiar. If you click the **Text tab**, this will show a plain-text HTML version of the post editor. This version of the post editor is for editing the HTML code of your post. For most users, the Visual editor is the easiest way to create posts. At the top of the right column on this screen you'll see the **Publish** box. Here, you can save your post as a draft if you'd like to save it for later. If you click the **Preview** button, you can get a preview of how the post will look once it's published. The **Status** of the post will indicate if the post has been published, saved as a draft, if it's pending review or if it's been scheduled. The next two links indicate the visibility of the post — or what visitors will be able to behold your post. The **Publish** line indicates whether the post will be published at once

or at a later date. The next section is for **categories** and **tags** assigned to your WordPress post. If you'd like to modify the screen options for your post editor, just click the **screen**

options tab in the upper right-hand corner. Expand this to expose all the options that can be displayed on the post editor screen. Again from the post editor, you can also drag or drop the order of these boxes to customize the way they arranged on the page. If you ever need help while you're on the **Add New Posts** page, just click the **Help tab** in the upper right corner. From here, you'll be able to get a reminder for how to customize your post display, tips for adding a post title and using the post editor, inserting media and change settings for publishing.

Adding tags to your WordPress posts will help you arrange your blog's content. Tags will also help your visitors find their way around your site more simply. To add tags to a new post, go to your blog's admin area > **Posts** > **Add New**. When you write your new post, you can add a tag to it by typing the tag word in the **Tags** field on the right and clicking the **Add** button. You can add as many tags as you want.

The tag cloud widget shows a set of all the tags you've assigned to your posts. The most common tags will be displayed in the largest font size. This widget is helpful due to it gives your readers an briefly view of your favorite topics, and lets them know what subjects you write about most often. The **Tag Cloud** widget will display up to 75 of your most popular tags. Note: Only tags that are attached to posts will be displayed in the widget. How to exclude tags? Click **Posts** > **Tags** in your WordPress Admin panel. Click on the name of the tag you want to exclude. In your browser's address bar, find the number after **tag_ID=**. That's the tag ID. Copy the tag ID number and go back to your **Customizer** > **Widgets**. Click on the tag cloud widget to open the widget settings, and paste the tag ID into the **Exclude** box. Click **Save** to save your changes.

Meta keywords and Meta descriptions allow you to improve your website's search engine optimization (SEO). In this section, you will know how to correctly add Meta keywords and Meta descriptions in WordPress using **Yoast SEO** plugin. Keywords and descriptions allow you to tell search engines more about the content of your pages and posts. Keywords are important words or phrases that people are able to search for if they were looking for the content you are publishing. Meta description is a short description of what your page or post is about. Meta keywords and description are really HTML Meta tags, and they go into your website's header. WordPress SEO plugins make it simple for you to add them from your WordPress admin area for each post and page on your website. Yoast SEO plugin adds an extra tool in the editor of WordPress. You'll see this new tool available when you add or edit a post or page. However, it may also appear in the custom content and other areas that use the WordPress TinyMCE editing system. Scroll down until you see the **Yoast SEO** section under the text editor. This is the control panel for Yoast. This window will show you in real-time how your content stacks up in terms of readability, excessive keyword use, and other metrics. Click the tab **Enter your focus keyword**. This tab's name will change once you enter a specific keyword you want to focus on. Click the **Edit snippet** button under the posts preview. This is where the Meta description for the content is situated. The people will see in the search results the information you put into this block. This description should

be brief, maybe one or two sentences, due to people using search engines may not be able to read it in its whole. Yoast will inform you if the description is too long by changing the color line under the text to yellow instead of green. Under the snippet editor, you'll see the option for a keyword. This is the single word you want the post or page to center around. Remember to don't use the keyword too often throughout your content. This is called "saturating," and search engines will punish you for it. Yoast will check your keyword and make sure you're using it a sufficient number of times. You don't want too little, but you definitely don't want too much. Under the focus keyword is the option for **Meta keywords**. Here is where you should input the keywords for the piece you're writing. Separate each with commas as you would in most other systems. Now all you have to do is save and publish once you're done writing your post.

To create menu, you must Login to the WordPress panel. From the **Appearance** menu on the left-hand side of the Dashboard, click the **Menus** option to bring up the **Menu Editor**. Click **Create a new menu** at the top of the page. Enter a name for your new menu in the Menu Name box. Select the **Create Menu** button. Your new custom menu has now been defined.

In this section, you will get to know about Widget Management. Widgets are small blocks that perform specific functions. These give design and structure control to the WordPress theme. Some specific features of a widget help you add content and features. They can be easily dragged and dropped in widget area. They differ from theme to theme. They are not the same for every theme. To create widget, select **Appearance > Widgets**. The following functions appear on the page: **Available Widgets** – You can use these to add into your sidebar main, **Inactive Sidebar (not used)** – These are not used and can be removed constantly from the widget list, **Inactive Widgets** – Deletes the widgets from sidebar but keep it in the settings, **Sidebar Main** – Any widget you add here will occur on your site, **Manage in Customizer** – Takes you back to customization page. Next, **Drag and drop** in the **Sidebar Main**. Any widget you create or change here shows up on your site.

When creating or editing a WordPress page or blog post, you can easily add images at any time with the usage of the WordPress Media Uploader tool. In order to add a picture to your page or post, you have to first insert your cursor in the space in the text where you want the image to appear. By placing your cursor within your text, you can insert images in line with your content. You can also place your cursor on an empty line if you need the image to appear by itself instead. Once you've placed your cursor on the line where you wish your image to appear, select the **Add Media** button to launch the media uploader interface, and then click the **Insert Media** option from the list of actions in the left side of the media uploader window. You can add or select the picture you want to add to your page or post by selecting from either of the following options in the center of the media uploader window: **Upload Files** – Upload the picture you need to use from your computer by dragging it into the upload area, **Media Library** – Select from any previously uploaded images in the media library by selecting the one you wish to add to your page or post. Once you have

chosen

or uploaded the image you want to add, a checkbox will display next to the thumbnail confirming your selection, and you see information about it displayed in the **Attachment Details** pane on the right-hand side of the media uploader interface.

To add video on your website, all you need to do is paste the video WWW address into the post editor. Make sure that the WWW address is in its own line and not clickable (hyperlinked).

To add gallery on your website, the first thing you need to do is install and activate the Envira Gallery plugin. Upon activation, you need to visit the **Envira Gallery > Settings** page to enter your license key. You can get this key from your account on Envira Gallery website. After checking your license key, you can head over to **Envira Gallery > Add New** page to add your first gallery. First you need to get a title for your gallery and then click on **Select files from computer** button to upload your pictures. You can also select files from your WordPress media library by clicking on **Select files from other sources** button. Once you upload your pictures, they will appear in the images section. You can select the pencil icon on a picture to add caption, title, and alt text to each image. Next, you should click on the **Config** tab. Here you are able to change your gallery settings like title and caption positioning, number of columns, heights, margins, picture dimensions, thumbnail sizes, etc. After that, you should click on the light box tab. The light box popup allows users to enlarge pictures and browse them without ever leaving the page. The default settings will work very well for most websites, but you can look at the options and change them if you like. You are able to now publish your gallery which will make it available to be added anywhere on your WordPress site. Next, you need to edit a post or page where you want to display your gallery. On the post edit screen, you will see the new **Add Gallery** button above the post editor. Clicking on it will bring up a popup where you can choose the gallery you created right now. Simply click to choose the gallery and then select the insert button. You will notice a short code for the gallery appear in your post editor. You are able to save and publish your page right now. After that visit your website to check how it works. When you click on a picture, it will open the picture in the light box popup. You are able to browse images in the light box by pressing the left and right arrow keys on your keyboard. Your gallery will look equally great on mobile devices as well. Users will be able to tap

on a picture to enlarge it and swipe to see the next or previous image.

Did you know that you can turn your WordPress site into a social network? A WordPress social network allows users to sign up, connect with each other, send messages, and more. WordPress is the easiest to use a system to build your own social network using the free BuddyPress plugin. It is super flexible and integrates beautifully with any kind of WordPress website. BuddyPress is a sister project of WordPress.org. It is available as a free WordPress plugin that you are able to install on your website. It turns your WordPress site into a social network allowing you to build your own online community.

To user registration and deletion, granting rights to users, you may use Profile Builder plugin. It is easy to use profile plugin allowing front-end login, user registration and edit profile

by using short codes. Restrict Content based on user role or logged in status & manage user roles and capabilities with using the built-in Role Editor. It allows you to make a customization your website by adding a front-end menu for all your users, giving them a more flexible way to modify their user profile or register users (front-end user registration). Users with administrator rights can customize basic user fields or add specific user fields

to the front-end forms. To achieve this, simply add a new page and give it an intuitive name (i.e. Edit Profile). Now all you need to do is add the following short code: [wppb-edit-profile]. Publish the page and you are finished.

1.1 ADDITIONAL READING

Title: [40 brilliant WordPress tutorials](#)

Link: <https://www.creativebloq.com/web-design/wordpress-tutorials-designers-1012990>

1.2 EXAMPLES OF INSPIRING EXPLAINER VIDEOS

Title of a video: [Wordpress Tutorial For beginners | How To Make A Website With WordPress Step By Step Video Training](#)

A Video Description: This WordPress Tutorial for beginners step by step video will show you how to make a website properly! If you're advanced, this is perfect for you too! Learn how to PROPERLY build a WordPress Website that is optimized correctly for visitors/customers and the search engines that will ultimately drive more traffic & customers to your site with basically nothing but free tools!

Link: <https://www.youtube.com/watch?v=G8o8u7OtuzY>

Title of a video: [WordPress Navigation Menus \(Theme Development\)](#)

A Video Description: In this lesson we learn how to add navigation menu locations to our theme and register the menus so users can easily manage the menu links via the WordPress Admin UI.

Link: https://www.youtube.com/watch?v=AShql_Ap1Yo&index=4&list=PLpcSpRrAaOaqMA4RdhSnnNcaqOVpX7qi5

Title of a video: [WordPress Widgets Tutorial](#)

A Video Description: Learn how to manage widgets in the WordPress admin area, and also how to add widget locations to any theme.

Link: <https://www.youtube.com/watch?v=QxeQBPgftRE&list=PLpcSpRrAaOaqMA4RdhSnnNcaqOVpX7qi5&index=14>

Title of a video: **How to Install a WordPress Plugin (3 Different Methods)**

A Video Description: After installing WordPress itself the first thing tutorials want you to know how to do and what most beginners want to know how to do is how to install a plugin. Plugins give you the ability to easily add new features to your site such as a slideshow, gallery, and many other tools for you to improve with. There are thousands of free and paid plugins available and in this video, we will show you how to install a WordPress plugin.

Link: <https://www.youtube.com/watch?v=QXbrdVjWaME>

Exercises

Exercise 1. Complete the sentences using the correct words from the list.

One of the techniques of planning and managing used in website design is the ____.

In the case of print design somebody is only the ____ recipient of the content, but in the case of web design, somebody is the ____ user of them.

The ____ is the entire sum of the user's interactions with a website.

However, in all cases, the designer's goal is to create sites that serve the needs of the users. This approach can be called the ____.

Information architecture – providing ____ navigation paths for the user which help them to get from one requested page to another.

content mapping, passive, active, user experience, user-centered design, optimal,

Exercise 2. Complete the sentences using the correct words from the list.

There is a wide navigation structure in which the main pages are listed ____.

An alternative method for organizing content on the website is ____ navigation, which simplifies the main navigation and then groups related pages into categories.

It is worth ___, due to the home page may not be as crucial as it once was in the past.

____ is the process of evaluating how users interact with a website.

horizontally, deep, rethinking website navigation, usability testing

3.3 Layout, Typography and Formatting (Graphics, Color, Transparency)

During this topic, you will be learning how to build your page layout using CSS styles, but you should note that this was not always a standard practice. In the mid-1990s, when web design developed, the only method available for sophisticated page layout, such as adding multiple columns to a page, was to use the HTML <table> tag. The HTML table was originally designed to present data in a logical format, using rows, columns, and cells. Designers adopted this table component and used it as the foundation for their page organization. At the time, this technique made perfect sense, because tables were the only tool available to create the sort of designs required at the time. Designers often used techniques such as nesting tables. For example, the code for a standard two-column page might start with a table consisting of three rows and two columns.

Today, before building a page layout, you should make a few decisions in advance. The first concerns the width of the layout. There are two main categories of layout widths: fixed-width layouts and flexible-width layouts. Fixed-width layouts are much more often used: in a fixed-width layout, all page elements are nested within a container that has a constant width.

A fixed-width layout is useful for the designer due to it offers a way to reliably position the various layout elements (such as headers, sidebars, and footers). It also supplies a reliable structure for elements, such as the width of a paragraph on a page or the placement of pictures.

Layouts adapt to the width of the browser window are called flexible layouts. When users have different monitor resolutions, flexible layouts making it possible to build a fixed-width layout that looks the same on every screen. A correctly designed flexible layout can automatically adjust to fit the user's browser window.

You could think that flexible layouts are more appropriate for the web. Now that mobile devices with different screen ratios, sizes and resolutions make up a substantial proportion of web browsers, a flexible layout might be better adjusted to these new interfaces than a fixed-width layout. Flexible-width layouts are much more difficult to build. During designing these, there are more decisions for the designer to make and more options to consider.

To wrap the text around an image there is use the float property. This style was borrowed from print design, where the effect is called text wrap or runaround. CSS reaches this effect by allowing elements following a floated element in the HTML markup to surround the element, effectively changing their placement. This behavior also makes it possible to create columns on a page.

The section and aside elements, as block-level elements, will be stacked on top of one another by default. However, we want these elements to sit side by side. By floating the section to the left and the aside to the right, we can position them as two columns

sitting opposite one another. To better shape our desired outcome, there are added a margin: and width: to each column.

Pointers are useful for print, and although available for use on the screen, they indicate an absolute unit of measurement and they don't translate well to the screen. Pixels, on the other hand, are the unit of measurement often used for screen-based graphics. Monitor resolution sizes are measured in pixel units. In an ideal world, designers could reliably use pixel sizes for their fonts due to they are relative units and are designed to scale natively. Unfortunately, web browsers such as Internet Explorer 6 and 7 do not resize pixel-based text if the user wants to override the default settings. The unit of measurement called an **em**

is very similar to pixels because it is designed to scale, but the huge difference is that ems are not related to the monitor resolution while pixels are tied to the monitor resolution. Although Ems may not be intuitive at first, understanding how to use them will worthwhile in the future.



In this section, you will learn how to add space between the sections of text on your page (which have margins of zero from the reset style sheet). You will learn some strategies for guiding the layout. Keep on your mind to don't use only a single method of CSS layout. You should understand the different options, which should help you in your future projects to decide which method to use.

Good graphic design of the website stays in line with the principles of typography, composition and use. The basic rules outlined below will help you become more aware of how you structure and use typography in your designs.

Your first step towards more effective typography is to learn a bit about the art. If you're unfamiliar with its concepts, you might think that typography must be a fairly simple discipline. The anatomy of a typeface involves very specific jargon, careful measurements and general standards that must be known and respected. As with many forms of design, you can only get away with breaking a rule if you know it well and are doing it purposely to make an experiment.

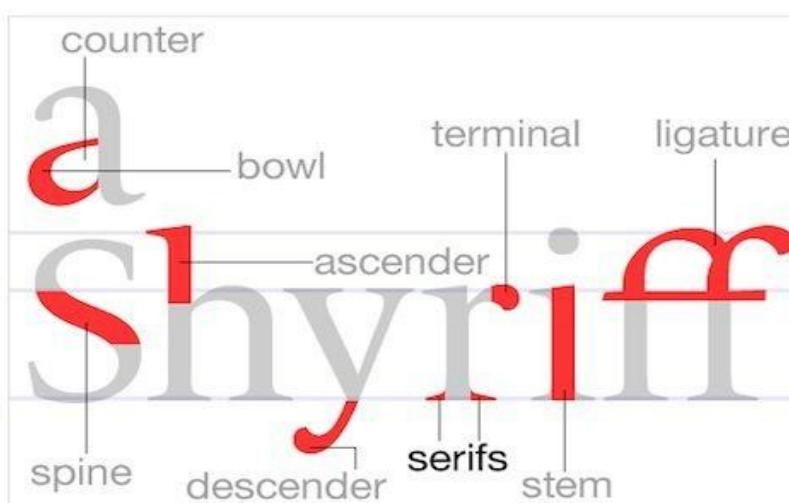
Next, you should be aware of font communication. Font choice should never be an arbitrary action. Simply looking through your entire library to find a font that you enjoy will rarely produce an effective result. The reason is that there is an inseparable psychology related to certain types of fonts.

Another thing which is an extremely important concept in typography is an alignment. For some reason, non-designers tend to instinctively center align everything. Somewhere in life, we learn that if something is centered then it is balanced and therefore better. In reality, center alignment is the weakest, hardest to read alignment and should be used very selectively.

After you've selected a primary typeface, the next step is to select another font that will accentuate it. Remember that headlines should grab the reader instantly. You've got a second or two at best to get someone's attention in the print world. If you miss that opportunity, you've lost your potential customer. What this means practically is that when you're creating a headline, don't simply type it out: design it.

The best way to learn to create efficient and attractive typography is to discover and survey some existing examples. So keep a lookout everywhere you go for what others are doing and think about why it does or doesn't seem to work well.

Keep on mind, that there are some challenges of fonts on the web. When designing for the web, you can format text in a way that is similar to desktop publishing and word processing applications, but there are important differences to keep in mind. Remember that a specific font needs to be installed on the user's computer when the web page is rendered on the viewer's computer or device. If the user does not have this font, the browser replaces it with another font. Due to you don't know what fonts are installed on user's computers, and because the web browser of a viewer might substitute fonts, your design intentions for text might not be truly reproduced. One option is to use fonts that you are sure will be found on most devices. Unfortunately, only a handful of fonts can reliably be found on virtually all devices around the world.



The graphics on your website should be optimal and appropriate for it. Optimizing refers to the preparation of pictures for use on the web. The target of optimization is to reduce the file size of the image for faster downloading, without compromising the quality of the picture. Ultimately, you may have to lower the quality of your pictures so they are small enough

to be downloaded and viewed fast. Keep on the mind that in many cases, it is more important to have a speedy download than to make the user wait for beautiful (but big) image files. Before you start adjusting the file size and quality of your images, you should have a broad idea of how you will use them, and how large they will be.

Many web designers faultily believe that if an image has a resolution of 72 dpi (dots per inch), it's ready for the web. However, the total pixel dimensions of the picture are much more important. The image size should be adjusted to your other content also. So consider which proportions of the pixel (width to height ratio) will be the most appropriate and crop the image to fixed dimensions. Keep on mind that after image resizing you should sharpen it because it can become blurry. The Unsharp Mask feature (available in Photoshop) sharpens the image based on levels of contrast while keeping the areas that don't have contrasting pixels smooth.

When saving a picture that you will use on the web, you need to consider two factors: the size and quality of the picture file. When you are adding a file to your webpage, you must find a balance among the quality you want and speed of download of it your viewers want. Each image format has benefits and drawbacks.. Consider the table below which presents different file formats and decide on a format for the picture you just resized.

File format	JPEG	PNG-8	PNG-24	GIF
Lossy	•	•	•	
Supports anti-aliasing	•		•	
Supports transparency			•	•
Supports animations				•
Supports varying amounts of transparency		•	•	
Has limited colors		•		•
Is best for photos	•		•	
Is best for solid colors		•	•	•

Table 1. File formats with their pros and cons

The JPEG file format allows you to keep the file size small, but some loss in picture quality occurs when you save the image file. Since the JPEG format provides anti-aliasing, it is recommended for photographic images and illustrations with a lot of gradients. Keep

on mind that anti-aliasing is a technique used in computer graphics that allow smooth out the naturally jagged edges of objects such as text or any area where a transition in tonal values is required. When saving a picture as a JPEG, you can also select varying levels of quality. Although transparency doesn't exist in the JPEG format, you can simulate the transparency effect. To do this you should use the matting feature to match the background color of your web page and then display the image in your browser. Your settings will be common for many images on your web page, so save them for the future.

If your web page contains large pictures you can use slicing of them due to downloading several smaller packets of information on the web is faster than downloading one large packet. A slice is a part of a picture, cut from a larger picture. These pieces are held together by an HTML table or Cascading Style Sheets (CSS). Slices are also useful when you need to save parts of a picture in different formats.

1.1 ADDITIONAL READING MATERIALS

Title: **Use Unsharp Mask To Fix Blurry Photos In Photoshop Elements**

Link: <https://www.essential-photoshop-elements.com/unsharp-mask.html>

Title: **HTML, CSS and JavaScript online interactive exercises**

Link: <https://www.w3schools.com/>

1.2 EXAMPLES OF INSPIRING EXPLAINER VIDEOS

Title of a video: **Photoshop Slice tool and Export a Website Layout with HTML**

A Video Description: By using Photoshop Slice tool how to create html website and how to use slice tool and how to edit this saved html website template layout.

Link: <https://www.youtube.com/watch?v=jUOEw3WgNSM>

Title of a video: **PSD To HTML | PSD To Bootstrap | HTML Tutorial Step By Step | PSD To Responsive Website**

A Video Description: Learn how to convert a PSD to HTML5 and CSS3 responsive using twitter Bootstrap 3. This is a very easy tutorial to convert a PSD into bootstrap. very easy steps. The simple tag is convert PSD to HTML tutorial.

Link: https://www.youtube.com/watch?v=YH0z2gy_9DU

Title of a video: **Adobe Photoshop Tutorial: The Basics for Beginners**

A Video Description: Adobe Photoshop Tutorial For Beginners, teaching the Basics Of Adobe Photoshop. Photoshop Tutorial for Beginners, going over many important aspects when first starting graphic design!

Link: <https://www.youtube.com/watch?v=pFyOznL9UvA>

Title of a video: **10 Typography and Design Tips for Beginners**

A Video Description: Get the Typography Geekmaster achievement by following through this typography tutorial for beginners. Watch these 10 tips that'll help you to fast-track your typography education.

Link: https://www.youtube.com/watch?v=CAAbMj_vaW8

Exercises

Exercise 1. Complete the sentences using the correct words from the list.

The _____ was originally designed to present data in a logical format, using rows, columns, and cells.

A _____ layout is useful for the designer due to it offers a way to reliably position the various layout elements (such as headers, sidebars, and footers).

A correctly designed _____ layout can automatically adjust to fit the user's browser window.

_____ are used commonly in standards-based design due to they can easily be updated and modified, and because they are text-based (not pictures), which improves accessibility in devices such as screen readers and can even help a website's search engine rankings.

HTML table, fixed-width, flexible, CSS navigation menus

Exercise 2. Complete the sentences using the correct words from the list.

_____ should never be an arbitrary action.

In reality, _____ is the weakest, hardest to read alignment and should be used very selectively.

The target of _____ is to reduce the file size of the image for faster downloading, without compromising the quality of the picture.

When saving a picture that you will use on the web, you need to consider two factors: the size and _____ of the picture file.

font choice, center alignment, optimization, quality

3.4 Browser Compatibility and Webpage Responsibility and Security

Every web page should display appropriately on the most number of the web browser. If you want to be sure of work of your website, you must test how it works on the browsers you want.

So what is a web browser and how it works? A web browser is an application that renders HTML, CSS, and JavaScript files according to a set of rules built into the program. Although web browser manufacturers use the recommended rules of the World Wide Web Consortium's specifications for HTML and CSS, they can interpret these guidelines as required for their own purposes. Browser manufacturers can also add their own principles to the specifications to add some specific features to their applications that are not available in others.



But are web pages required to display in the same way in all browsers? The answer to this question depends on you should find a balance between time or budget considerations and technical considerations. You have to determine whether you are able to achieve your goal of making a web page look the same. For example, the earliest browsers, such as Internet Explorer 3 or Netscape 3, don't support cascading style sheets. For these browsers, you couldn't apply the CSS layout techniques you got to know during the previous topic. In the case of time/budget considerations, you should determine whether the solution is worth it because you might find technical solutions to make your pages look the same, but it probably takes you more time than you have assigned to identify and fix the problem.



Before you start testing the browsers, you should check the level of browser use. For example, the level of browser use partially accounts for your decision to support it. For example, you can check that no more than 0.5 per cent of all global browsers is Netscape Navigator 3, so you, in this case, should decide not to spend much time designing for this web browser. This process is called choosing the level of the web browser.

After you selected browser to support, you should view how they work with your web page. But you might not have access to the web browser, which is an often problem during testing for cross-browser compatibility. For example, different Windows operating systems might not allow multiple versions of Internet Explorer to be installed on the same system. A common solution is to have access to the other computer with an appropriate web browser installed. Many web designers invest in an inexpensive computer mainly used for testing. But more efficient and easier to debugging process is to use a software virtualization environment.

For example, if you work on MacOS you can install Apple Bootcamp and have virtual Windows OS on it. On the other hand, you are able to use the web browser typical for MacOS or Linux, when you work on Windows OS. You only need to install VirtualBox or VMWare. To better testing process, you should use software such as AdobeBrowserLab or Microsoft SuperPreview. These applications allow you to preview your websites on many different web browsers.



As we mentioned in the first topic, nowadays you should design responsive web pages which are optimized for mobile devices. Until recently, the way a website displayed on a mobile phone's browser was only a marginal concern for most web designers. However, mobile browsing is growing at an astonishing rate. Some estimates put the growth rate at 25 to 30 per cent each year.

First, you need to consider screen orientation: for computer monitors, the default orientation is horizontal; for mobile phones, it's vertical. Particularly older mobile phones can only display web pages vertically, but newer smartphones can rotate the screen from portrait to landscape orientation.

Second keep on mind, that many mobile devices have limited processing power, memory and speed of internet connection, which may result in incomplete or delayed page rendering. Features such as copy and paste may either be limited or completely missing.

An often problem in web design is the discrepancy between how something should work and how it really works. Different web browsers render the exact same page differently depending on various factors. This is particularly the case with mobile web browsers. A solution to this problem was proposed in 1999 when the original specifications for CSS were developed. Using this solution, the web browser defaults to the screen type when there is no other designation for the kind of style sheet to use. Other media types are available

for use: screen, which is the standard for desktop monitors; projection; print; handheld; etc. For example you can use the handheld media type by adding the following link to target handheld devices.

Sometimes you can create an additional style sheet and attach it to your pages so that some handheld devices will use this style sheet properly. But remember that mobile web browsers have not usually done a good job with these style sheets, and sometimes, will ignore

or interpret them in various ways. An even greater issue today is that some of the most popular and high-profile mobile web browsers are not recognized as handheld devices at all, so a line of code such as the one shown above would not work.

In some cases, media types don't work. Then you can use media queries in CSS3 to identify devices that are visiting your website. Rather than looking for a device that declares itself as a handheld, a media query analyze the capability of the device and then allows you to send it styles based on certain values. For example, the media query might contain look for the device width and height, the width and height of the web browser window, the device screen orientation (landscape or portrait), and the resolution, among other things. If the user uses a mobile browser that supports media queries, you can create CSS specifically for certain situations, for example, to discover whether the user has a small device such as a smartphone

If you want your webpage to be successful, you have to understand how search engines work. Search engines work better if web page content is organized and well-labeled because it is easier for search engines to evaluate the content and relevance of content on the page. So keep on mind your web page should contain clear and logically named sections, both within the code and also within page content. If you would like to use external links on your website you should enter a full address of the external webpage.

Placing your company on Google Maps is a good idea. You are able to add it at web page available on address <https://www.google.com/business/>. Google Maps provides its own Application Programming Interface (API) to allow you to place an interesting fragment of the map on your website.

You may find that your business doesn't appear for relevant searches in your area. To maximize how often your customers see your business in local search results, you should remember to enter complete data, verify your location, keep your opening hours accurate, manage and respond to reviews, add photos. The webpage must have prominence. Prominence refers to how well-known a company is. Some places are more visible in the offline world, and search results try to reflect this in local ranking. For example, famous restaurants, landmark museums, or well-known store brands that are familiar to many people are also likely to be visible in local search results. Keep in mind that prominence

is also based on information that Google has about a company from across the web (like articles, links and directories). Google review count and score are factored into local search ranking: more opinions and positive ratings will probably improve a business's local ranking. Your position in web results is also a factor, so SEO best practices also apply to local search optimization. There's no way to pay or request for a better local ranking on Google. Due to Google company do their best to keep the details of the search algorithm confidential to make the ranking system is possible fair and justice for everyone.



To track and report traffic on your website you may use Google Analytics service. Google Analytics offers an easy and free way to track and analyze visitors on your website. You could have thousands or even millions of visitors every month, but those visitors are actually meaningless if you don't know anything about them. With its robust web analytics and reporting tools, Google Analytics allows you to make the most out of visitors and potentially turn them into customers. In addition to tracking the number of visitors, Google Analytics supplies key insights into how your website is performing and what you can do to meet your goals. You can follow everything from how much traffic your website is getting to where that traffic is coming from and how visitors are behaving. You can even control social media activities, track mobile app traffic, identify trends and integrate other data sources to help you make well-informed business decisions.



Contemporary web pages use web cookies. A web cookie is a small piece of data sent from a website and stored on the user's device by the user's web browser while the user is browsing. Cookies were designed to be a reliable mechanism for websites to remember stated information (such as items added in the shopping cart in an online store) or to record the user's browsing activity (including logging in, clicking particular buttons, or recording which pages were visited in the past). They can also be used to remember arbitrary pieces of information that the user previously fill into form fields such as names, addresses, email, passwords, and credit card numbers. Cookies are a limited technology and not particularly easy for designers to use.



Additionally, with the usage of the cookies related are law limitations. Although cookies are mentioned only once in the EU General Data Protection Regulation (GDPR), the repercussions are significant for any organization that uses them to track users' browsing activity. The GDPR states: "Natural persons may be associated with online identifiers [...] such as internet protocol addresses, cookie identifiers or other identifiers [...]. This may leave traces which, in particular when combined with unique identifiers and other information received by the servers, may be used to create profiles of the natural persons and identify them." In short: when cookies can identify an individual via their device, it is considered personal data. This supports Recital 26, which says that any data that can be used

to identify an individual either directly or indirectly (whether on its own or in conjunction with other information) is personal data.

But not all cookies are used in a way that could identify users, but the majority are and will be subject to the GDPR. This includes cookies for advertising, analytics and functional services, such as survey and chat tools.

To be in harmony with EU law, organizations will need to either stop collecting the offending cookies or find a lawful ground to collect and process that data. Most organizations rely on consent (either implied or opt-out), but the GDPR's strengthened requirements mean it will be much harder to obtain legal consent.

Implied consent is no longer good enough. Consent must be given through a clear affirmative action, such as clicking an opt-in box or selecting settings or preferences on a settings menu. Simply visiting a site doesn't count as consent also. 'By using this site, you accept cookies' messages are also not sufficient for the same reasons. If there is no genuine and free choice, then there is no valid consent. You must make it possible to both accept and/or reject cookies.

Sites will need to provide an opt-out option. Even after getting valid consent, sites must give people the choice to change their mind. If you ask for consent through opt-in boxes in a settings menu, users must always be able to return to that menu to adjust their preferences.

In January 2017, the European Commission proposed a new ePR (Regulation on Privacy and Electronic Communications) as part of its digital single market strategy. The ePR has the same territorial scope as the EU's GDPR (General Data Protection Regulation), carries an identical penalty regime for non-compliance and was also intended to come into effect on 25 May 2018. However, there have been delays and it is likely to come into force in 2019. As this Regulation is still in draft form, there are no products or services for it yet.

1.1 ADDITIONAL READING

Title: Availability Control Positioning

Link: <https://developers.google.com/maps/documentation/javascript/examples/control-positioning>

Title: **HTML, CSS and JavaScript online interactive exercises**

Link: <https://www.w3schools.com/>

1.2 EXAMPLES OF INSPIRING EXPLAINER VIDEOS

Title of a video: **CSS Tutorial For Beginners 51 - Browser Support**

A Video Description: Browser support in CSS is an important issue, and one that is often overlooked by fledgling front-end ninjas! So in this CSS tutorial for beginners we'll take a quick look at ways we can check browser support for some CSS features, and how to apply fall-back options when needed.

Link: <https://www.youtube.com/watch?v=a0nkO-hVqGQ>

Title of a video: **WordPress Website Optimization for Mobile Platforms**

A Video Description: In this video there is show you three simple ways to drastically improve your website's performance on Mobile platforms.

Link: <https://www.youtube.com/watch?v=NvXeK0dEUbk>

Title of a video: **HTML5/CSS3 Flat Responsive Website - Start To Finish Web Design Tutorial**

A Video Description: In this video you will learn how to design a responsive HTML5 and CSS3 website from scratch using only a text editor. The website design also features a navigation that will transform at the mobile or responsive width of the website.

Link: <https://www.youtube.com/watch?v=muZ0JYBCnrU>

Title of a video: **[GDPR solution] How to Add a Cookies Popup in WordPress Website 2018**

A Video Description: In this video you will see you how to add cookies popup in WordPress website.

Link: https://www.youtube.com/watch?v=_DenXYFk8ww

Title of a video: **Google Analytics 2018 Beginners Tutorial**

A Video Description: The tutorial about how to set up your Google Analytics.

Link: <https://www.youtube.com/watch?v=P3V01bdbIR0>

Exercises

Exercise 1. Complete the sentences using the correct words from the list.

A web browser is an application that _____ HTML, CSS, and JavaScript files according to a set of rules built into the program.

Before you start testing the browsers, you should check the level of _____.

If you work on MacOS you can install _____ and have virtual Windows OS on it.

To better testing process, you should use software such as _____. This application allows you to preview your websites on many different web browsers.

Renders, browser use, Apple Bootcamp, AdobeBrowserLab

Exercise 2. Complete the sentences using the correct words from the list.

Nowadays you should design _____ web pages which are optimized for mobile devices.

First, you need to consider screen orientation: for computer monitors, the default orientation is _____; for mobile phones, it's _____.

In some cases, media types don't work. Then you can use _____ in CSS3 to identify devices that are visiting your website.

Search engines work better if web page content is organized and _____ because it is easier for search engines to evaluate the content and relevance of content on the page.

Responsive, horizontal, vertical, media queries, well-labeled

8.4. Module 4 – Hardware

Document Title:	O3– Learning content: text version (template)
Intellectual Output:	IO3 Learning content: text version
Author Partner(s):	Association Euni Partners
Date of Issue:	
Status:	
Date of Delivery:	
Number of Pages:	30
Contributors to document:	GoDigital project consortium
Quality Reviewer (if any):	GoDigital project consortium
Confidentiality Status:	GoDigital partners

Syllabus

Number and name of the module: Module 4: HARDWARE	
A module description	The Module 4: HARDWARE – This material aims to provide primary school teachers with competencies needed to use Interactive Whiteboard, to design educational resources for Interactive Whiteboard and to integrate them into everyday teaching activities, to understand different learning styles of the learners and at the same time support their confidence while working with computer, by providing information about hardware and how to tackle most common hardware issues.
Intended learning outcomes	<ul style="list-style-type: none"> • On completion of this module you should be able to: • Have knowledge what is computer hardware • Know differences between components and peripherals • Fix some technical issues or know where to find help • Know what is Interactive Whiteboard • Understand general use of IWB and setting up • Know different IWB softwares • Position and orient Interactive Whiteboard • Understand potential of IWB tools • Understand how to use stylus • Know what is interactive lesson and how to create them • Facilitate different learning styles • Know different examples of exercises and resources available online
Learning activities	<ul style="list-style-type: none"> • watching 1 presentation video and 8 additional videos • exploring 9 optional reading material • doing 7 exercises
Estimated duration	<p>Total workload is 2 hours 15 minutes including:</p> <ul style="list-style-type: none"> • 70 minutes for watching videos • 50 minutes for exploring obligatory reading material • 15 minutes for exercises

Introductory text

In recent years, traditional model of teaching has been increasingly affected by the use of modern technologies. It is particularly the interactive whiteboard, which is gradually gaining popularity in schools in a wide range of subjects of study. However, the educational system is not responding to the new situation adequately, as proved also by GoDigital research. Even though a school possess an interactive whiteboard, it is not used eventually for several reasons: lack of self-confidence in using technologies, absence of specialized training and consequently lack of technical and theoretical knowledge, etc.

One of the reasons this new technological tool began to be considered for use in educational settings is because it was identified as a way to integrate a wide range of multimedia resources, such as written text, sound, pictures, software packages, video clips, CD-ROMs, Internet images and websites, into classroom instruction.

The use of interactive whiteboard can also engage pupils more than traditional teaching methods and increase motivation and enjoyment. It maximizes student engagement and active participation across all subject areas. With the use of colourful fonts, graphics, layouts, interesting software, and the fact that they can write on the board with the tip of their finger, students' attention is easily captured and their interest will develop more on the topic learned.

This material aims to support primary school teachers to gain knowledge and confidence while using computers and interactive whiteboard. It serves also as a guide developed for teachers, who design and deliver teaching and learning material trying to engage his/her pupils in interactive learning experience.

2.1 Topic 1 – Hardware

The **first topic** provides basic information about computer hardware. For the reason that every teacher experiences some problems with his computer from time to time, after short introduction to computer hardware, the first topic gives an answer to the most common issues teachers can meet, like problems with internet connection, plugging devices, etc.

Examples of inspiring explainer videos

Title of a video Computer Basics: Hardware

A Video Description This video will identify each piece of hardware that makes up a computer. It demonstrates how to open it up, take it apart and discuss the make up of the mother board, and then put it back together.

Link <https://www.youtube.com/watch?v=ctAVC2JwEwl>

Title of a video How To Identify The Components Inside Your Computer

A Video Description Instructional video on components in the computer

Link <https://www.youtube.com/watch?v=yRmPTbGBqVI>

2.2 Topic 2 – Interactive Whiteboard

Then on, in the **second topic**, the teaching material focuses on Interactive Whiteboard (IWB). The spread of IWB around the world changes, reforms and modernizes the traditional teaching methods. The teachers have the cardinal role in the proper use of IWB during the lessons and they are also responsible for providing students with creative and motivating tasks lesson by lesson. The second topic will prepare the teacher for using the IWB, particularly they will learn the basics about IWB, its software or setting up.

Examples of inspiring explainer videos

Title of a video An Introduction to Interactive Whiteboards

A Video Description An introduction to using interactive whiteboards (IWBs) in the classroom, demonstrated by Gareth Davies - one of Oxford's Teacher Trainers - using Oxford iTools.

Link <https://www.youtube.com/watch?v=jIHg3F3C56I>

Title of a video Digital Whiteboard Tutorial

A Video Description A short tutorial on getting started with digital whiteboards using a tablet and some simple software. Traditional whiteboards are often poorly maintained in conference rooms or are too small. Digital white boarding can be a fresh way to explain concepts without PowerPoint or slides.

Link <https://www.youtube.com/watch?v=gIYn3Zaqql4>

Title of a video How to use an Interactive Whiteboard

A Video Description This is the first of a series of nine videos showing teachers how to use an interactive whiteboard in class.

Link <https://www.youtube.com/watch?v=lLxVjw1yvRk>

Title of a video Interactive Whiteboard Tutorial

A Video Description This tutorial will show you how to use ActiveInspire and create an English lesson. ActiveInspire is a creative teaching software for Interactive Whiteboards.

Link <https://www.youtube.com/watch?v=EagCRRirG04>

Title of a video Smart Board Orientation

A Video Description This video demonstrates how and why you orient your SMART Board interactive whiteboard.

Link https://www.youtube.com/watch?v=BJ5_a_dNpmQ

2.3 Topic 3 – Interactive Whiteboard tools and potentialities

The **third topic** will present some of the most common software tools incorporated, which can be used for creating activities for your lessons, like pages, pens and highlighters, drag and drops, searchlight tools and so on.

2.4 Topic 4 – Use of Interactive Whiteboard for creating lessons

In the **fourth topic**, the main focus is on using IWB within an educational context. It gives you concrete examples of exercises or activities you can use, in order to enhance the interaction of pupils with IWB.

Examples of inspiring explainer videos

Title of a video How to create interactive exercises using the Lessons activity tool - SMART tutorials for teachers

A Video Description SMART tutorials for teachers shows you how to create engaging, interactive lessons with the Lessons activity tool

Link <https://www.youtube.com/watch?v=8SnHRSJ5Vno&t=11s>

3 Expanded text

3.1 Hardware

3.1.1 Understand what is computer hardware

To learn what hardware is, first we need to know what is computer. A **computer** is an electronic device, operating under the control of instructions stored in its own memory that can accept data (input), process the data according to specified rules, produce information (output), and store the information for future use. Every computer has two parts, the hardware and software. Hardware cannot be used without software.

Abbreviated as HW, **hardware** is best described as any physical component of a computer system that contains a circuit board, integrated circuits, or other electronics. Hardware is so-termed because it is "hard" or rigid with respect to changes or modifications; whereas software is "soft" because it can be easily updated or changed. A perfect example of hardware is the screen on which you are viewing this page. Whether it be a computer monitor, tablet or smart phone; it is hardware. Without any hardware, your computer would not exist, and software could not be used.

Hardware is directly controlled by firmware, the part that is embedded into computer. Software of the computer is on top of the hardware, and it makes use of the firmware to interface with the hardware. Firmware is software program that is programmed to give permanent instructions to communicate with other devices and perform input/output tasks. Firmware is stored in ROM (read only memory) of the hardware device. Without firmware, hardware is non-functional.

Software is computer program that is giving instructions to a computer in order to do specific tasks. There are three categories of software: system software (serves as a base for application software), programming software (set of tools to aid developers in writing programs) and application software (intended to perform certain tasks).

3.1.2 Understand what is internal and external hardware

Hardware is the collection of all the physical parts that you can see and touch. There are internal and external parts of hardware. External hardware consists of parts that are installed outside of the computer, while the internal hardware are parts inside the computer. Keyboard, mouse, printer etc. are external hardware parts, and RAM, motherboard etc. are considered parts of internal hardware. The internal hardware parts are called **components**, and external hardware are called **peripherals**.

- **COMPONENTS (INTERNAL)**

Every computer is made from different parts, like hard drives, motherboards and RAM, and every one of those parts is made from smaller parts that are called components.

Example: Motherboard parts are transformers, capacitors, resistors, PCP (printed circuit board). They all need to function in order for motherboard to work with other parts of the computer.

Components that perform calculations and process information are circuits, transistors and switches. Even bigger parts of a computer like hard drive are called components, even though they themselves are made of small components.

- **PERIPHERAL (EXTERNAL)**

Any external device that can be plugged and/or unplugged can be called peripheral. There are input (mice, keyboard) and output (monitor) peripherals. You can also call them "I/O devices" because they provide input and output for the computer. There are also some devices that provide both input and output for the computer, like external hard drives.

There are many different peripheral devices, but generally, they are divided into three general categories:

- Input devices, such as a mouse and a keyboard
- Output devices, such as a monitor, projector, interactive whiteboard, printer
- Storage devices, such as a hard drive or flash drive

Input are any data or instructions entered into the memory of a computer. Output is data that has been processed into a useful form. Output is basically how you get the processed information "out" of the computer.

Some devices fall into more than one category. Consider a CD-ROM drive; you can use it to read data or music (input), and you can use it to write data to a CD (output).

3.1.3 Hardware problem fixing

When it comes to hardware, some technical issues can occur from time to time; nevertheless not all of them require a professional intervention from IT specialist and some of the problems can be handled by yourself. The first and basic rule if the application or computer is not working is to restart the computer.

3.1.3.1 Know how to use and plug/unplug external devices

External devices along with internal devices are essential part of every PC. In order to use external devices (like USB flash drive), you need to plug them in the PC. When you want to unplug them, you need to remember, that they must be **safely removed**. In the additional reading, you can find a step-by-step guide how to do it.



ComputerHope.com

Figure 1 USB port and cable

If your USB port stops working, it's not necessary that it's broken. Here, you can find some solutions that can help you to fix this issue:

<https://www.hongkiat.com/blog/pc-hardware-problems-solutions/>

3.1.3.2 Know how to solve internet connection problems

Every once in a while, you will experience problems with your internet connection. Some of the problems are very common and easy to resolve, and some are more complicated. Most of them you can solve on your own, but if you cannot, always call your internet operators or school technician, who will fix the problem. In order to find the solution for internet and Wi-Fi problems, you need to understand the issue. First of all try turning off the Wi-Fi on your device, then re-enabling it. If that doesn't work, do the same with your router by unplugging it and then plugging it back in 30 seconds later. Following link will give you most common Wi-Fi and Internet problems along with solutions:

<https://www.digitaltrends.com/computing/wi-fi-problems-and-solutions/>

3.1.3.3 Be able to use projector

A projector is an optical device that projects an image (or moving images) onto a surface, commonly a projection screen. Most projectors create an image by shining a light through a

small transparent lens, but some newer types of projectors can project the image directly, by using lasers.”³

In order to use a projector, first you have to set it up, from finding the right location for the projector to selecting the right picture mode. In this link you can find step by step instructions: <https://www.cnet.com/how-to/how-to-set-up-a-projector/>

If you have problems with connecting your projector to a PC or a laptop, here is the link with instructions how to do that:

<https://www.lifewire.com/how-to-set-up-a-projector-and-laptop-for-presentations-2378137>

As with all technology, you will have some problems at some point of time with your projector, like bad quality of image, or no image at all. On this link you can find the most common problems that you can have with your projector, backed up with solutions: <https://jprojectors.wordpress.com/2011/08/08/projector-troubleshooting/>

How to switch screens from the monitor to projector

Plug the projector to your computer, if the screen is not switched automatically, you need to do these steps:

1. While holding down the Windows key, press and release the P key.



Figure 2 Keyboard shortcut

2. A window with display options will appear. You can choose from 4 options:

³ <https://en.wikipedia.org/wiki/Projector>

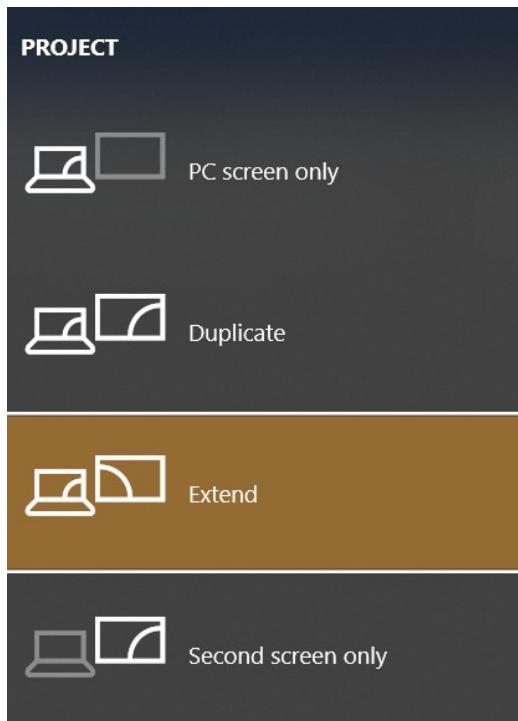


Figure 3 Display mode options

- a PC screen only** – the user see only the screen of the computer
- b Duplicate** – this option shows the same image from the computer on the projection screen
- c Extend** - gives the user the ability to expand their desktop viewing to more than one monitor. This feature works well when a user needs multiple programs open, it displays different content on your laptop monitor and on the data projector screen.
- d Second screen only** - disables the user's monitor and displays only on the user's projector screen.

3.2 Interactive Whiteboard

3.2.1 Know introduction to IWB and its history

An **interactive whiteboard**, also known as a smart board, is an interactive display in the format of a whiteboard that reacts to user input either directly or through other devices. It is an external hardware you connect to your computer.

The interactive whiteboard was originally envisioned by David Martin and Nancy Knowlton in 1987. Soon after, they co-founded the company SMART Technologies and introduced the world's first SMART Board in 1991. While the original concept was to create a device that would function as a whiteboard and computer, by the time it was presented to the market, the touch sensitive application had also been added (SMART Tech, 2012). The purpose of

that key feature was to include the ability to control the board with the touch of a finger in a way that allowed the user to write over Microsoft Windows applications presented on the screen ("Interactive Whiteboards", 2010).

*Every interactive whiteboard system requires three basic components: **a computer, projector and the interactive whiteboard**. To use it, the projector is connected to both the computer and IWB so that the document or media opened on the computer is displayed for the audience on the screen. In contrast to previous conventional computer and projector setups, the user controls the IWB directly from the surface of the screen either by using the special pens accompanied with the board or with the touch of a finger. In this way, the user can interact with the IWB so as to more readily engage the audience. ("SMART Tech", 2012).*

3.2.2 Understand general use of IWB and setting up

An Interactive Whiteboard (IWB) is a **touch-sensitive board that is usually connected to computer and digital projector, so in this way images may be projected on the interactive whiteboard surface**. Nowadays, some models have an integrated projector behind the screen, which makes them more convenient with fewer wires and no shades on the screen, but these models are more expensive.

When you touch the interactive whiteboard's surface, the four cameras located in the interactive whiteboard's corners detect the contact's horizontal and vertical coordinates. The computer interprets these coordinates and moves the pointer to the corresponding location on the interactive whiteboard's surface.

The computer connected to the interactive whiteboard can be controlled by touching the board directly with fingers or by using a special pen (stylus). Interactive whiteboard is widely considered to be a positive and motivational asset to the classroom. Teachers can enrich their instructions with different kind of techniques like use visual, auditory and kinaesthetic types of learning, which can help increase students attention and participation.

More information about starting the interactive whiteboard you can find:
<https://studylib.net/doc/8850287/quick-reference-smart-board-interactive-whiteboard-basics>

You can visit this website in order to check how to set up IWB.

[https://www.wikihow.com/Set-Up-a-Smart-Board?
fbclid=IwAR2D29WSX2Fz2NGPbKky8vHNrJOD4xHtOeMSlw5DVcrtGXK4y-On5UZqoj4](https://www.wikihow.com/Set-Up-a-Smart-Board?fbclid=IwAR2D29WSX2Fz2NGPbKky8vHNrJOD4xHtOeMSlw5DVcrtGXK4y-On5UZqoj4)

3.2.3 How to choose suitable software

The real effectiveness of IWB technology is not only hardware. It is a specialised software that gives extra functionality to the board. This specialised software is usually in the form of 'notebook' or 'flipchart' software that behaves a little like Microsoft PowerPoint but with additional functionality, including the ability to let you drag objects around the screen freely.

Every IWB comes with their own software, which provides characteristics specifically made to maximize interaction opportunities. A lot of software tools mostly have some patterns and educational types that are available for teaching, which allow working in a more collaborative way and also allow teachers to present material in more interesting way.

Currently, there is a dominance of two major brands on the IWB market - **SMART and Promethean**, which also affect the way other IWB software evolves. There are probably valid reasons for this current dominance as both SMART and Promethean were pioneers in the field and made an early commitment to the education sector. They are both relatively mature, stable products with strong company support, but still more importantly they have a huge community of users who all share resources freely via an online marketplace. Nevertheless, the lack of compatibility of resources between both brands might cause problems, even though the situation is starting to improve.

SMART Notebook Software is built for education and designed for schools. With the options that the technology offers, the creation of interactive lessons will be quick and easy. Notebook has a lot of free exercise assets, which makes it easier to organize game-based learning, so it helps keeping the attention of students. A lot of guides and practical video are available on the Internet explaining how to work with Smart Interactive Whiteboards.

ActivInspire is a collaborative lesson delivery software for interactive displays developed by Promethean. ActivInspire provides a vast suite of tools to create and deliver dynamic lessons. Students are encouraged to work together thanks to dual-user and multi-touch functionality for interactive displays.

OpenBoard is teaching software for interactive whiteboard that is primarily used in schools and universities. It gives the opportunity to have a different teaching method while using current teaching tools. The purpose of this software is to make learning a lot more effective.

MozaBook is educational software that allows you to do versatile teaching, presentations and animations. It also gives you access to media library where you can find a lot of educational videos and audio files that help you keeping the student attention.

3.2.4 IWB in the classroom

Interactive whiteboards are available in both a **fixed or mobile** design. For a large classroom with more students, a larger fixed whiteboard would probably be more suitable. On the other hand, in schools with limited budget a mobile whiteboard may be more economical option, as the whiteboard can be shared among classrooms.

The wall, where the board is supposed to be placed, needs to be empty, any existing equipment should be removed, so the readability of the screen will be ensured. The board should be positioned away from glare from the windows, somewhere where the class can see it easily and users can stand from both sides. Consider putting blinds to a room that gets a lot of sunlight in summer and make sure the blinds really reduce the sun's glare and are not too pale. The teacher should be able to reach the top of the board and kids should be able to reach at least the half.

You can find more information about positioning of the interactive whiteboard and its installation on this link: <https://support.rm.com/TechnicalArticle.asp?cref=TEC326369>

3.2.5 Being able to orient IWB

Sometimes, when you turn on your interactive whiteboard, the cursor can appear somewhere else from the place you are pressing. In most cases, the touch surface must be initially calibrated with the display image. This process involves displaying a sequence of dots or crosses on the touch surface and having the user select these dots either with a stylus or their finger. This process is called **alignment, calibration, or orientation**. Fixed installations with projectors and boards bolted to ceiling and wall greatly reduce or eliminate the need to calibrate.

On the Orientation screen you should see the cross in the left side. Press your pen in the middle of the cross (and do the same for every cross that appears next) in order to complete the orientation of IWB. Check the video below in order to understand better the process of calibrating of the interactive whiteboard.



Figure 4 Orientation of the Interactive White Board⁴

⁴ <https://www.dummies.com/consumer-electronics/orienting-your-smart-board-interactive-whiteboard/>

3.3 Interactive Whiteboard tools and potentialities

3.3.1 Understand the potential of IWB tools

The interactive whiteboard has a very diverse set of functions that can be used in the classroom to help engage students and enhance their learning. When we watch an IWB user working with a board, much of the interactivity we see is based around the idea of being able to easily drag movable objects around the screen. But there are other important IWB-specific features built into the software, including a variety of virtual pens and highlighting tools useful for magnifying and focusing on parts of a page, as well as easy access to a large collection of images, backgrounds and interactive tools. These may sound like simple features but they are central to building an effective IWB experience and are not found in most other software applications, or at least not in the same integrated way.

Most interactive whiteboard manufacturers provide software programs as a collaborative tool so as to enhance the visual and audio quality for any lesson or presentation given. In general, software applications designed for interactive whiteboards contain the following features:

- 1 Pages** - This application functions as a design work area that can be created and modified before or during the lesson or presentation. Each page can include text, images, videos, website links and anything drawn directly on the IWB. Afterwards, all of the work done can be saved for reference and future use.
- 2 Pens and highlighters** - These interactive whiteboard software tools are used to write and draw on the top of the IWB desktop. The pen tools allow the size, colour and properties of pen lines to be changed in order to suit the needs of the activity.
- 3 Drag and drops** - The simplest action to undertake on an IWB is to drag and drop objects and moving them around the screen. Many interactive activities are based on this simple idea, e.g. matching terms/pictures with correct definition.

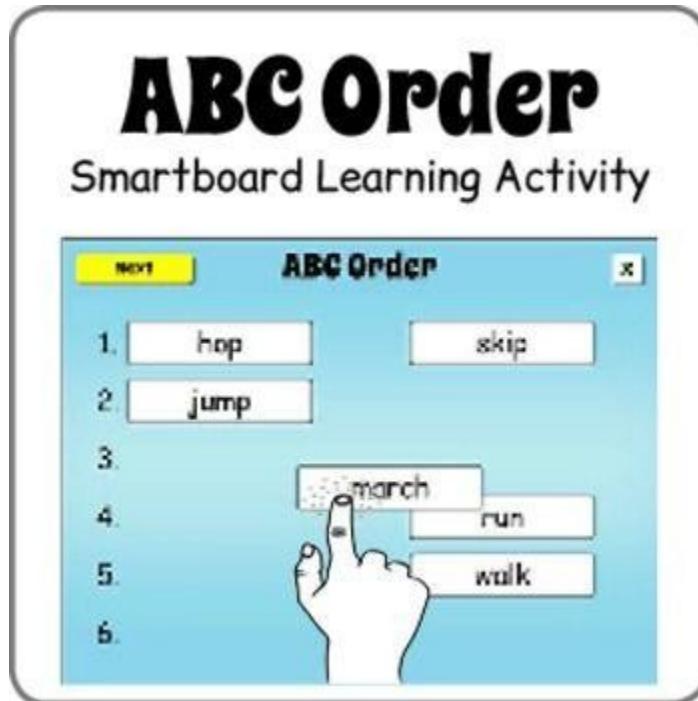


Figure 5 Drag and drop activity⁵

- 4 Spotlight / searchlight** - The spotlight or searchlight tool allows the teacher or student to explore individual parts or aspects of the screen. The user can make the area within the searchlight larger or smaller and may also change its shape so that the searchlight area is square or rectangular. You can use the Spotlight tool during a presentation to draw attention to an area of a screen.

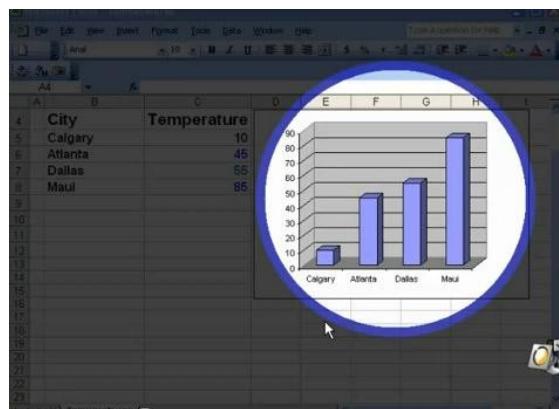


Figure 6 Spotlight tool⁶

- 5 Interactive activities** - This includes a series of tools, games and activities, most of which are animated and powered by Java.
- 6 Backgrounds and objects** - The purpose of the background option is to apply colour or patterns to a document. The objects tool can be used for drawing or hiding other information. Both of these features have the option to add animation to them.

⁵ <https://www.teacherspayteachers.com/Product/Smartboard-Alphabetical-Order-Game-2751316>

⁶ <https://sites.google.com/site/cimt665emergingechnologies1/pedagogical-features>

- 7 Screen-shade, blind, curtain or reveal tool** - These tools are simple screen covers that allow you to hide all or part of the screen. Commonly it is used to gradually introduce teaching points or an activity. It can be used to reveal gradually a map or different layers of the picture.



Figure 7 Screen Shade⁷

- 8 Fill tools and techniques** - The fill tool allows users to change the colour of a shape, text object or the background by clicking on it and selecting a colour. For example, the fill tool can be used to fill the regular shapes in blue and the irregular shapes in green.

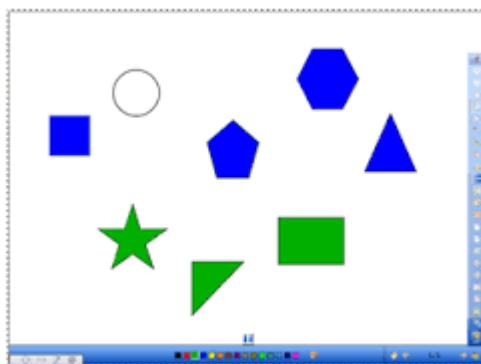


Figure 8 Example of Fill tool activity⁸

- 9 Text / handwriting recognition** - This tool automatically turns handwriting written with a pen tool into text. Often the software will offer a number of text alternatives in order to take into account different styles of handwriting. Some brands can convert handwriting into a specific language. e.g. a French teacher will convert handwriting into German in a foreign language class.

- 10 Digital galleries** - This is a large bank of ready-made images, multimedia and subject specific tools that can be easily incorporated into a lesson or presentation.

- 11 Video player** – The biggest advantage of this tool is that you can write or draw over video during a presentation and capture a single video frame into Notebook software.

⁷ <https://dougbelshaw.com/blog/2008/09/08/10-ways-to-use-your-interactive-whiteboard-more-effectively/>

⁸ http://moe.eun.org/c/document_library/get_file?uuid=589ce404-1607-49a0-9f39-bc6b7990f30a&groupId=10620

12 Page recording capabilities – The main function of this is to record the activity taking place on the IWB, which can also be saved in multiple formats and replayed for immediate or later review. It can apply to the full screen or a particular area. For example, a teacher can use this tool to record an interpretation of a new topic and use it in several classes or to record a process then replay it during the lesson to reinforce learning.

13 Interacting with Internet – there are various online interactive resources you can involve to your lesson plan in order to make it interesting and engaging for your pupils. In the last chapter, you can find some examples of the websites with resources for IWB. Besides that, you can also use Google Earth or Google maps for showing real pictures, play videos from YouTube, use Google Search for instant searching, join online discussion, etc.

3.3.2 Understand how to use Stylus

An IWB consists of a screen where images from a computer are projected. Users can interact with the computer by touching or writing on the screen with a finger or stylus.



Figure 9 Stylus⁹

Stylus (stylus pen) is a special pen that is used to transmit user's actions on the screen of IWB. User places a stylus on the surface of the screen to draw or make selections by tapping the stylus on the screen. In this way, stylus can be used as a mouse (it is similarly to a computer being controlled with a mouse), to select tool, navigate, scroll, draw or erase objects, etc. If you want to select something, just touch the screen with the pen. Double-tap the icon on the screen if you want to open it. In order for the item to be moved, place the pen on the item, and then drag it on the screen, etc.

Furthermore, since IWB pen is more precise, it is better to use it for orientation of the interactive whiteboard rather than your finger.

Pen-based interfaces have been suggested to mimic the realistic physical sensations on digital surfaces to allow users to feel like they are writing with a traditional pen. What is more, you can create handwritten drawings and notes.

⁹

https://www.bhphotovideo.com/c/product/684260-REG/Epson_V12H378001_Easy_Interactive_Pen_f.html

3.4 Use of Interactive Whiteboard for creating lessons

3.4.1 Creating interactive lessons

By using IWB in teaching activities, an educator is embedding technology in classroom daily routines. Interactive lessons are engaging and keep the attention of the learners. Such visual resource gives teachers the opportunity to mix different medias, images, videos and sound in the presentation of their materials. The numerous combinations makes it possible to present ideas in different and exciting way. **Interactive lessons/lectures are classes in which the teacher incorporates engagement triggers and make students participate in an activity that lets them work directly with the material.** The engagement triggers are the points, which capture student attention. Such kind of lesson allows students to apply what they have learned or give them a context for upcoming material. In the beginning, the teacher can include one activity during a class, but may eventually use a blend of various interactive lesson techniques all in one class period. Breaking up the lecture with these techniques not only provides format change to engage students, but these activities also allow students to immediately apply content and provide feedback to the teacher on lesson understanding.

Interactive classes include segments of lecture combined with segments where students interact. One of the things that makes the lecture interactive is the ability of the teacher to choose the content of the lecture segments based on the students' needs.

The IWB is a tool for educating that allows the teacher to interact with pupils and to easily model and introduce abstract ideas. At the same time, it keeps students attention and inspires them to think outside the conventional frame giving them new perspective of learning.

The use of IWB has positive impact on both students and teachers. Some of the main benefits of using IWB are:

Makes structuring lessons easier:

Teacher can plan the lesson and can schedule the specific learning tasks. With the use of IWB the lesson is prepared and ready in advance, so delivering of the material will be easier, and the teacher will improve his time management.

Learning process is becoming more enjoyable:

The old teaching methods are not appropriate anymore, especially for the students from this technological era. If the teacher involves interactive whiteboard in the classroom, he/she makes the learning environment more pleasant and interesting. Children will find it

easier to follow the syllabus, they will be even anxious to try out how the board works. In such way they are naturally involved in the learning process.

Interaction between teacher and student

Instead of making one-way presentation, teacher can engage the students. For example, he/she can combine text with pictures or video, or audio. The teacher can incorporate a whole visual world in the classroom and can trigger the students interest. Through increasing the level of engagement, they will foster creative thinking and will improve the learning results of their students.

Allows review and revision of lessons

Teacher can share lessons with pupils, so they have the lessons for later, to playback them and review them. He/she can deliver the lesson to students who did not attend the class by recording them and sharing the files. The revision of lessons is more convenient as well, through focusing on important points, which is easy through using IWB.

Appropriate for students with various disabilities

The incorporation of texts, images, video and sound allows each student, including those with learning difficulties, to understand and enjoy the lesson. Students with hearing impairment can benefit from visual presentation. In case of visual impairment, the student can learn from the audio one. The use of IWB practically meets the learning needs of every student.

How to use IWB in teaching

- **Display** - Improve your presentation content. Develop an array of material (pictures, text from Microsoft Word file, graphics, video and audio files). Integrate different type of media for your presentation.
- **Record Lessons** - Record your lessons; take notes and create presentation. Use the appropriate software for screen recording, save the lessons and share them with your students.
- **Use Web resources** - Search the Internet for files available and lectures to use in your lessons. During the lesson, use the Internet for providing students with answers and examples. The more interactive and dynamic is the lesson, the more interesting will be for them.

- **Storage** - Save lessons, notes and discussions, they are accessible afterwards and students can review them.
- **ezTalks Meetings** - is software for sharing screen, text, audio and video in real-time.
- **Interactivity** - Engage students by encouraging them to give an instant feedback for the lesson, to contribute with ideas and suggestions for the learning process.
- **Games** - A creative teaching method is to use games such as rearranging jumbled texts/ objects or drag and match. Modifying games according to the specific objectives is possible.
- **Group Interaction** - Encourage group participation and discussions. Do brainstorming, let the groups on the IWB to present their ideas and to make notes. Share the saved result with the class.
- **Emphasis** - Use IWB's patterns, such as movement or colour, to emphasise on word, or group of words or ideas.

More ideas for using IWB:

<http://www.psychology.sunysb.edu/hwaters/psy327/articles/Whiteboards%20in%20the%20Classroom.pdf>

When a computer is used for interactive group work it can stimulate collaboration and a high level of on-task discussion. The screen enables all children to share a common experience, a single keyboard forces the team to reach consensus before any entry can be made, and the presence of an external focus can help with the development of social skills. The interactive whiteboard is an even more powerful stimulus to interactivity because:

- everyone can write on it and changes can be saved – this gives shared ownership
- it has high visual impact, creating a theatrical effect in the classroom
- it facilitates better class control/management – the teacher can be at the front, facing the class
- it makes a wide range of resources instantly available
- presentations and such like can be annotated by teacher and pupils
- it engages pupils – getting them moving and participating and improving behaviour
- it facilitates concept mapping – items can be moved easily around the screen
- it supports discussion (on topic) and learning from other pupils
- it is motivating, because both teachers and children enjoy using it.

3.4.2 Facilitate different learning styles

All teachers should strive to enhance learning process of their students, try to understand their learning style, thus address their needs. Interactive whiteboards are great means to support different leaning styles of the pupils.

Visual Learners

Individuals who fall into this category typically learn through what they are able to see with their own eyes. Visual learners are those students who jockey for the positions at the front of the class. Visual learners have a tendency to describe everything that they see in terms of appearances. These learners love visual aids such as photos, diagrams, maps and graphs. Visual learners frequently are good writers and commonly perform quite well on written assignments.

Auditory Learners

Auditory learners are very good listeners. They tend to absorb information in a more efficient manner through sounds, music, discussions, etc. These individuals will be more likely to record lectures so that they can replay them later for study purposes. Auditory learners appreciate audio books and may find that reading aloud will help them to retain information. Rather than written reports, auditory learners tend to do better on oral presentations and reports.

Poems, songs, music, and speeches can enhance auditory learning, and the whiteboard is a good forum for encouraging such expression.

Kinaesthetic Learners

Kinaesthetic learners are tactile learning. This means that they learn best through moving, doing, acting out and touching. Projects that are hands-on in nature are best for kinaesthetic learners. Kinaesthetic learners tend to become frustrated when they must sit for long periods of time. They enjoy conducting experiments, exploring and performing tasks.

Kinaesthetic or tactile learners are typically difficult to engage in traditional classroom activities that are usually more visual or auditory in nature. They are able to reinforce learning through exercises involving touch, movement and space on an interactive whiteboard.

3.4.3 Know examples of exercises you can do on IWB

Interacting with the context of a lesson

Using interactive whiteboard is a great opportunity to introduce new techniques, exercises or lesson content. Here you can find some of them:¹⁰

➤ A class explore the concept of symmetry

Rather than completing symmetry tasks for pictures from a book, students can identify symmetrical objects in the room. A teacher can take picture of the objects in the classroom. The photos are displayed on the interactive whiteboard, while a white square is placed over half of the object. The students estimate and draw the outline of the covered part of the object. After that, the white square is removed and the students are able to assess the accuracy of their estimation of symmetry. Very often, the most engaging objects are students' faces.

Interacting with the Context of a Lesson

A kindergarten class was exploring the concept of symmetry. Rather than completing symmetry tasks for pictures from a book, students identified symmetrical objects in the room and a digital photo was taken of the object. The photo was displayed on the SMART Board and a white square was placed over half of the object, along the line of symmetry, covering half the image. The students estimated and drew the outline of the covered half of the object, drawing on top of the white square. The white square was moved away and the students were able to assess the accuracy of their estimation of symmetry. The most engaging symmetrical object was students' faces.

Scanning of written work to facilitate group drafting / correction.

After the completion of a writing activity a student is chosen to have their work scanned and displayed on the SMART Board. The class then discusses the work, using the pens to annotate changes that they might make and correcting mistakes. All students are motivated to complete high quality work so that the number of mistakes that may be found are minimised. The proof reading skills of the entire class have increased as all students are motivated to find a mistake in the work of others, or suggest acceptable improvements in expression or style.

Cloze Exercises

Instead of using a cloze exercise from a pre-prepared set of exercises, a page from a current book that the class is reading is scanned and displayed on the SMART Board. By using a thick pen width and changing the pen colour to white the teacher can draw over selected words, hiding them. The result is an instant cloze exercise, set in the context of the class' learning. When correcting, all that is required is to move the 'white pen' away from the covered word. This could be done one letter at a time if hints are needed.

¹⁰ https://www.edubcn.cat/rccs_gene/9_teaching_interactively_whiteboards.pdf

Students who do not normally engage in books could be motivated to read and complete a cloze exercise by using short newspaper articles downloaded from the Internet. For teenage boys, articles from the sport pages can often engage their attention.

Interacting with the content of the lesson

Sentence structure

A seemingly random set of words and grammatical notations is placed on a notebook page. Students are asked to create statements by dragging the words into a correct order. Students would then be asked to slightly rearrange the statement, changing it into a question.

Weather

During a lesson on interpreting weather maps the teacher simultaneously access a number of real time satellite and radar images from the Australian Bureau of meteorology web site (www.bom.gov.au). Using the interactive whiteboard they could discuss and annotate the images (Fig 1). Based on their learning of weather formations the class would make predictions as to the current weather conditions at various major cities around Australia. The class then checked their prediction by accessing real-time images from those cities via web cams from each city.

The Internet for comparisons of two sides of an issue

When a class discusses a controversial issues the Internet can be used to source information and arguments relating to both sides of the issue. The class could then compare and contrast the points of view put forward by both sides, perhaps summarising the arguments in using mind mapping software as outlined in the example above. Environmental issues lend themselves well to this type of activity.

Interacting over time

Use of save lessons and student work

Retrieving save work and old lessons allow teachers to point out links between different areas of the curriculum. Students often enjoy discussing previous pieces of work that they have completed, especially in the light of new learning that has taken place.

Interacting with the Context of a Lesson

A kindergarten class was exploring the concept of symmetry. Rather than completing symmetry tasks for pictures from a book, students identified symmetrical objects in the room and a digital photo was taken of the object. The photo was displayed on the SMART Board and a white square was placed over half of the object, along the line of symmetry, covering half the image. The students estimated and drew the outline of the covered half of the object, drawing on top of the white square. The white square was moved away and the students were able to assess the accuracy of their estimation of symmetry. The most engaging symmetrical object was students' faces.

Retrieving save work and old lessons allow teachers to point out links between different areas of the curriculum. Students often enjoy discussing previous pieces of work that they have completed, especially in the light of new learning that has taken place.

➤ Cloze Exercises

You can scan a page from book, that the class is currently reading and display it on the board. By using a thick pen with white colour, the teacher can draw over selected words, hiding them. The result is an immediate cloze exercise, set in the context of the class' learning. When correcting, you just move the white pen away from the covered word. This could be done letter by letter to give hints to the students. In this way, you can engage students who are usually not interested in reading, but you can motivate them by completing a cloze exercise. You can even download an article from the Internet, matching interests of your pupils.

The little frog sat on the It was morning and the had just come up. The frog was catching the that flew by with his long tongue. A fly by. The frog to catch him. He was too away. The frog for another insect to come by.

Word Box

sun came far tried waited log insects

Figure 10 Cloze exercise

Interacting with the content of the lesson

➤ Sentence structure

First, you place a seemingly random set of words and grammatical notations on a notebook page. Students are asked to create sentences by dragging the words into a correct order. Then they can be asked to rearrange the sentence to create a question.

➤ The Internet for comparisons of two sides of issues

The Internet is a great tool to invoke a discussion for controversial topics and can be used as a source for information. The class can compare and highlight the points of view, summarizing the arguments in using mind mapping software.

Interacting over time

➤ Use of save lessons and work

You can use your saved lessons and work of your students to point out links between different topics. Students often like to discuss their previous work, especially in the light of new knowledge, they have gained.

Enhancing classroom discussion

An interactive whiteboard is an ideal focus for classroom discussion, providing opportunities to raise questions and stimulate exploration. Various techniques may be used, including:

➤ Using a picture as a stimulus for discussion

Interactive whiteboard software has a rub-out-to-reveal facility. This involves placing a layer of colour over the top of a picture to hide it, and then using the eraser to reveal the picture a bit at a time. One teacher used this technique to stimulate discussion to help pupils formulate ideas for writing. A single detail is revealed and the pupils are asked to describe what they can see and to predict what else might be in the picture. Pupils are encouraged to invent a story to explain the image and to add annotations in the form of speech bubbles and other comments before the whole image is revealed to the class. The spotlight tool, available on most whiteboards, could be used in a similar way.

➤ Using written prompts

Another facility is the drag-and-drop. You can use it to stimulate discussion about what children already know about the earth, sun and moon. You can prepare a screen with a circle in the middle and a selection of key words and numbers around the edge (e.g. 365, month, rotate, eclipse, tides, night, 24, sun, moon, axis, orbit, day, earth, shadow). Pupils are invited to come to the whiteboard and drag two of the key words into the circle and then talk about them. This prompted statements such as “The moon orbits the earth” or “The earth takes 24 hours to rotate.” The use of key words and the theatrical effect of standing at the whiteboard are more effective in encouraging children to articulate their knowledge than simple teacher questioning would have been. This technique can be used effectively in many different subject areas.

➤ Sorting

Example: A primary school class was exploring what homes were like a long time ago. The teacher had prepared a page of images of old and new things found around the home. This contained clip art, digital photographs, images captured from the internet and scanned pictures from magazines. Children came to the front of the class to drag and drop an item into the appropriate ‘old’ or ‘new’ box. As they did so, each child was asked to say or ask something about the chosen item, for example “My gran uses a tea cosy” or “That looks very old – what was it used for?” The activity was used to stimulate general class discussion, and although it took time to set up, it was kept on file in the teacher’s resource bank and used with other groups of children in other classes.

➤ Text-disclosure activities

Within a literature class, a teacher present the class with an extract from a poem, hidden like in a text-disclosure program. The screen display consists only of a star for each letter and all the punctuation. The children are told that the bold stars represent capital letters, and asked what they can deduce about the text. Apparently, they will agreed that it is a poem because of the layout, and that it contains proper nouns/names at the end of the first line and elsewhere. The single-letter word is predicted as an 'a' and all other occurrences of the same letter are filled in throughout the text. Three-letter words beginning with 'a' are then predicted as 'and' and occurrences of 'n' and 'd' also inserted.

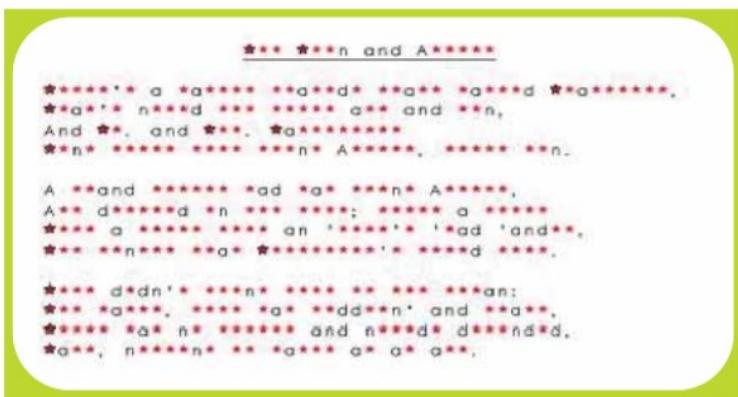


Figure 11 Text-disclosure activity¹¹

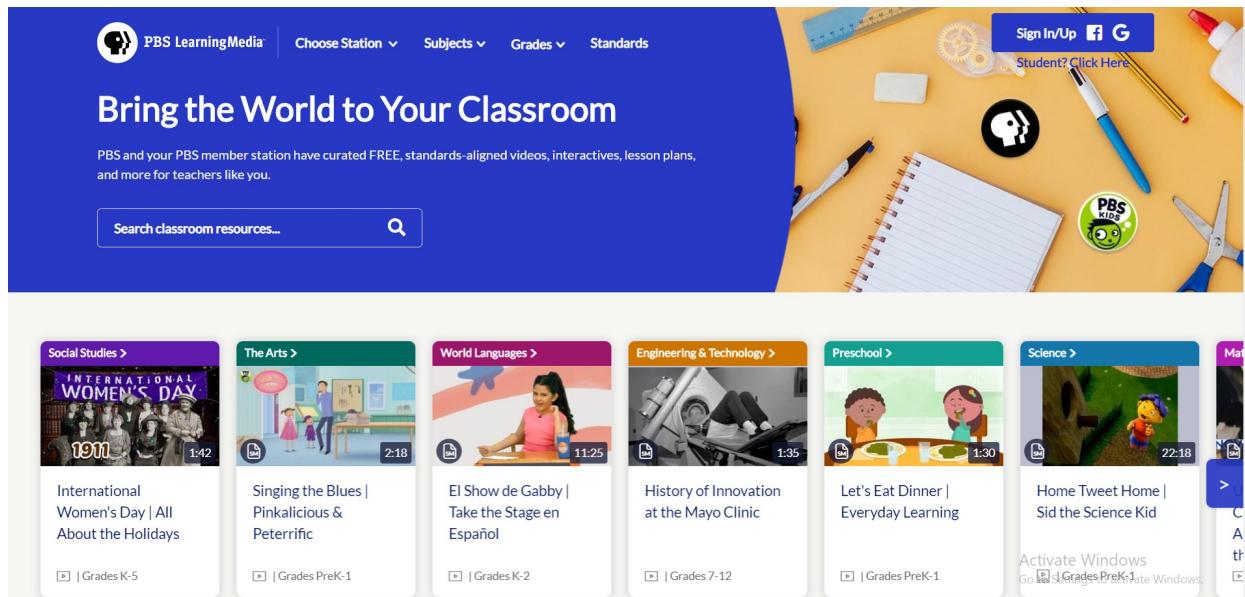
3.4.4 Know different resources

In order to get the most out of the interactive whiteboard in your classroom, you need to plan your lessons and digital and web-based resources. Nowadays, there is a wealth of both free and priced digital resources available to make teaching and learning really effective.

- **Pbslearningmedia.org** page offers a great number of free resources, videos, media gallery, games, lesson plans, etc., categorized by subjects, grades or resource type. After creating a free account, you will gain a full access to the website.

<https://www.pbslearningmedia.org/>

¹¹ https://www.edubcn.cat/rccs_gene/9_teaching_interactively_whiteboards.pdf



The screenshot shows the PBS Learning Media homepage. At the top, there's a navigation bar with 'PBS LearningMedia' logo, 'Choose Station', 'Subjects', 'Grades', and 'Standards'. On the right, there are 'Sign In/Up' and 'Student? Click Here' buttons, along with social media links for Facebook and Google. A large blue banner in the center says 'Bring the World to Your Classroom' with the text: 'PBS and your PBS member station have curated FREE, standards-aligned videos, interactives, lesson plans, and more for teachers like you.' Below the banner is a search bar with placeholder text 'Search classroom resources...' and a magnifying glass icon. To the right of the search bar is a photograph of a school desk with various supplies like a ruler, eraser, pen, and notebook. Below the banner, there are six video thumbnail cards arranged in two rows of three. The first row includes: 'Social Studies > INTERNATIONAL WOMEN'S DAY 1911' (1:42), 'The Arts > Singing the Blues | Pinkalicious & Peterrific' (2:18), 'World Languages > El Show de Gabby | Take the Stage en Español' (11:25), 'Engineering & Technology > History of Innovation at the Mayo Clinic' (1:35), 'Preschool > Let's Eat Dinner | Everyday Learning' (1:30), and 'Science > Home Tweet Home | Sid the Science Kid' (22:18). The second row starts with 'Math > Activate Windows Go to Settings > Activate Windows' (CATH). Each thumbnail has a play button, a duration, and a grade level indicator.

Figure 12 Pbslearning media platform

- Platform **Topmarks** provide variety of resources for interactive whiteboard, which are organised by subject, age group and category.

<https://www.topmarks.co.uk/INTERACTIVE.ASPX>



The screenshot shows the Topmarks website. At the top, there's a purple header with the 'Topmarks' logo, followed by 'Topmarks Search', 'Whiteboard Resources', 'Learning Games', 'Parents' Resources', and 'Topmarks Blog'. Below the header, there's a banner with the text 'The best, free Interactive Whiteboard Resources' and 'Regularly updated to save you time!' with a cartoon character. On the left, there's a sidebar with a menu for 'Maths', 'Literacy', 'Science', 'Biology', 'Chemistry', 'Physics', 'Art', 'Religious Studies', 'History', 'Geography', and 'Music'. Below this are buttons for '1st Grade', '2nd Grade', '3rd Grade', '4th Grade', and '5th Grade'. The main content area has a heading 'Welcome to our Interactive Whiteboard Resources!'. It says 'To get started pick a subject, then an age group from the menu on the left.' and 'We've been working hard to feature the best educational resources which work well on interactive whiteboards in the classroom.' It also states 'The resources are organised by subject, age group and category to make them easy for you to find. We are constantly updating the web sites listed here to ensure that they are current.' At the bottom, there's a grid of icons for different age groups and subjects like 'Kindergarten', '1st Grade', '2nd Grade', '3rd Grade', '4th Grade', '5th Grade', '6th Grade', '7th Grade', '8th Grade', 'Algebra 1 & 2', and 'Precalculus'.

Figure 13 Topmarks platform

- **Crickweb** is a free online education resources and games for Primary/ Elementary schools.

<http://www.crickweb.co.uk/ks1literacy.html#wordorder1>

- **Starfall** is a free website to teach children to read, including language arts and mathematics for preschool, kindergarten, first grade, second grade, and third grade.

The founder of the program, wanted to create a website with untimed, multisensory interactive games that allow children to see, hear, and touch as they learn, since he had a difficulty to read, when he was a child, therefore these activities are suitable also for kids with dyslexia.

<https://www.starfall.com/h/>

- **British museum** website has a great bank of resources related to history, art, cultures, math and numeracy, etc.

https://www.britishmuseum.org/learning/schools_and_teachers.aspx

Here, you can find more interesting websites and resources for your lesson:

<https://sites.google.com/site/resourceslaboratory/home/interactive-whiteboard-material/websites-with-resources>

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Exercises

Exercise 1. Complete the sentences using the correct words from the list.

A web browser is an application that _____ HTML, CSS, and JavaScript files according to a set of rules built into the program.

Before you start testing the browsers, you should check the level of _____.

If you work on MacOS you can install _____ and have virtual Windows OS on it.

To better testing process, you should use software such as _____. This application allows you to preview your websites on many different web browsers.

Renders, browser use, Apple Bootcamp, AdobeBrowserLab

Exercise 2. Complete the sentences using the correct words from the list.

Nowadays you should design _____ web pages which are optimized for mobile devices.

First, you need to consider screen orientation: for computer monitors, the default orientation is _____; for mobile phones, it's _____.

In some cases, media types don't work. Then you can use _____ in CSS3 to identify devices that are visiting your website.

Search engines work better if web page content is organized and _____ because it is easier for search engines to evaluate the content and relevance of content on the page.

Responsive, horizontal, vertical, media queries, well-labeled

8.5. Module 5 – Tools & Applications

Document Title:	O3– Learning content: text version (template)
Intellectual Output:	IO3 Learning content: text version
Author Partner(s):	SAN
Date of Issue:	22.11.18
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Number of Pages:	22
Contributors to document:	GoDigital project consortium
Quality Reviewer (if any):	GoDigital project consortium
Confidentiality Status:	GoDigital partners

1 - Syllabus

Module 5	
A module description	This module relates to ICT tools and internet applications that can be used in the teaching and learning process. The module presents tools related to selected methods on the basis of general “content curation” method approach. Basing on this approach it is divided into four main topics based on steps of the “content curation” method. The teachers will develop both a theoretical orientation in the range of available tools and applications demonstrating the potential for education (getting tips on specific proposals for such computer programs), as well as practical skills related to their sourcing and use in the teaching process. In the Module 5 the emphasis is on shaping teachers' skills regarding to the independent search of tools and applications, critical evaluation of their educational potential and ability to properly design educational tasks and activities with their use.
Intended learning outcomes¹²	On completion of this module you should be able to: <ul style="list-style-type: none"> ● Create the teaching and learning process according to the “content curation” method. ● Prepare the curriculum of teaching and learning process according to the specific factors. ● Search and find proper materials and gather them in one place using internet tools. ● Plan and conduct the teaching and learning process using selected internet environments. ● Search, select and apply tools and applications to the educational process. ● Organize and supervise individual and group work of your students. ● Use selected web applications in the evaluation of pupils' achievements.
Learning activities	<ul style="list-style-type: none"> ● watching 1 presentation video and additional videos of used programs ● exploring 2 obligatory and 3 optional reading material ● doing 3 exercises ● doing 3 self-improvement exercises
Estimated duration	Total workload is 4 hours including: <ul style="list-style-type: none"> ● 10 minutes for watching videos

¹² Intended learning outcomes address what a learner should be able to do after engaging this module. Use one verb (or at most two) for each outcome. (**Cf. curriculum and make amendments you find necessary**)

- | | |
|--|--|
| | <ul style="list-style-type: none">● 45 minutes for exploring obligatory reading material● 120 minutes of exploring described programs● 15 minutes for exercises● 15minutes to get acquainted with self-improvement exercises. |
|--|--|

This excluding self-improvement exercises.

2. Learning content

2.1 - Introduction

There's no need to convince anyone to use digital technologies for education. It is like persuading a farmer to use a modern, high-tech machine, rather than horse and a lister for plowing. So do not expect please, that in this module you will read about advantages of e-learning or using e-applications in teacher's job. These are obvious. You will also not be bored with even a persuasive theory of didactics than can be adapted for new technological methodology. That is good for university lectures. And we are to work with kids to encourage them to learn with what they have all around: modern technology and the immensity of information, as we all living in the era of information. In the society living in that era, the role of the teacher changes from the "transmitter" of knowledge into the "curator" that provides a roadmap of learning and using the knowledge gained from the variety of sources.

Thus, the core of the methodology in this module is the "content curation" method, which is the method that came from the world of media and art, as it is biased on the work of museum and art exhibition curators, but it is also incorporated by journalists. This method, however can be very useful in teaching and learning process, as it is based on the educational philosophy of constructivism and connectivism. This method, in a very short description, is about gathering, choosing, processing and adapting information needed to achieve selected learning outcomes, throughout the wide world of information. This method is also strictly related to the PBL (*Problem Base Learning*) method, in which teacher is

a donor of a problem to be solved by students, and his/her role is limited to be a facilitator and tutor in the process. But it also can be implemented in other, especially classical methods of teaching, even in the didactic method – hated, as it is teacher and content oriented, but still important in some areas of teaching.

With such approach, there are five steps of processing: first (step 1), we must determine the learning outcomes and the profile of students, that will allow us to choose the proper method of teaching, than (step 2) we must collect proper data to establish the teaching and learning process. Next step (step 3) is to find the right format for the data – appropriate to the kind and area of educational material. Then (step 4) we need to publish this material and make it easy accessible for the students. And finally (step 5) we must evaluate the job that is done.

According to this model, you will find four general topics in this module:

- 1 "Content curation" as a method of using ICT tools and web applications in education.
(step 1)

In this section there will be more detailed information about methods and approaches that can be used in combination with ICT tools and internet applications. This topic will help to

determine methods of teaching and learning and will explain the philosophy that lies behind the “content curation”. Additionally it will enable teachers to use their and their pupil’s work at school.

2 Topic 2: Tools and applications that support development of media and creative competences. (step 2 & 3)

In this section there will be proposed some tools to search, collect and apply tools that allows to create appropriate, attractive and friendly materials for both: teaching and learning. This will allow to develop digital competences not only for teacher, but also for pupils. Interactive materials, comics, films or music allow children to develop their natural creativity and eagerness to learn.

3 Tools and applications facilitating group and project work of pupils. (step 4)

This section allows to find and adjust proper environment to learning process, according to the type of the problem, capabilities of the pupils, accessibility of the equipment, etc.

4 Tools and applications that can be used in analytical and evaluation methods. (step 5)

This topic is to give information on the possibilities of using analytical and evaluation tools in the educational process. The purpose of evaluation is to have self-assessment of pupils’ efforts In order to improve it, so it is extremely important do develop their analytical competences. But it is also important to give the right feedback in such a way that it will encourage to further efforts and the right web-based application can help in evaluation of pupils’ achievements.

Each topic is equipped with examples of applications or tools that exists in the Internet, with short description and video instructions where available.

2.2 Reading

From the point of view of human’s development, present times can be described as an age of information. Theoreticians describe modern society as an “information society”, which means that we are surrounded by information and use it to create new ones. Fast development of media and means of communication causes the knowledge as accessible as never before. But this also means that we must change our attitude to it: knowledge is still power, but the access for it is so wide, that we can easily become a victim of information noise. And this draws into conclusion, that education systems cannot further rely on traditional didactic methods and philosophy of “knowledge transmission” that lies beneath it. This is not a new approach as in the Roman Club Report, published in 1979 it was stated that we should make any limits in learning. This means that we should open for the new ways and technologies in education rather than pit ourselves in strict bounds of classical approach. For this, we don’t have to make any new discoveries for education, as mostly we have philosophies of doing and methods of educational processing around us. We should

only be opened for new approaches and technologies that draws from many spheres of our social life.

We use information personally, i.e. we use them to solve our personal problems and creates our personal perspective through which we perceive the world around us. Such an approach is based on constructivism – the view, that (in a big simplification) every personal creates knowledge from perceived information and thus makes the view about the reality. The mind is only a mediator between the world of facts and the personal experience that we create through learning. This is why the Problem Based Learning (PBL) method is one of the best to do so.

In PBL we begin with the problem to be solved. This problem requires knowledge and skills that can be obtained by a learner in the process of solving the problem. This method can be used on every step of education process and with using ICT tools as well. The role of the teacher, except of the fact that he/she is a the problem donor, is rather as a facilitator of the process of learning, who show the spheres and type of information needed, who helps with the method used to solve the problem, who support the process by giving the right tools or motivates for further and systematic work. In one word: the teacher is a kind of “curator” that keep his/her mind above the process of learning.

Topic 1: Content curation method.

As it was mentioned in the introduction, the content curation method derives from the world of art and was put into education through the world of media. The idea is simple and lies upon the way of acting of the art curators: the person who is responsible for the exhibition have the right (and obligation) of choosing the content of the exhibition amidst the immensity of material. This way of acting was taken by the journalists, who in the world of information have to deal with the ocean of information, from which they have to pick the right ones. So it can be easily notice, that this method is also applicable in education, where the teachers have to decide which content is the best for the class as well as for the individual pupils.

The processing according to this method (five steps) were already described, but we can remind it here:

- 1 The learning outcomes must be done (as every teacher always does), but we must also determine the methods (e.g. PBL), then pick up the problem to be solved (e.g. What is worth to be visited in our town?), and the las one: we should think about individualization of the work according to capabilities of our pupils. To do so, we can divide pupils into working groups and decide who is responsible for which part of the project.
- 2 The data must be collected. It is good to give some propositions and let the pupils find the material themselves or give some sources at first and then ask kids to develop the database for the project.
- 3 The tools must be chosen, according to the form of the project (presentation, video, audio, etc.)

- 4 The evaluation must be done. The evaluation is the most effective when it is done from three sides: the teacher, the pupils that have done the project (individually and as a group), and the group that saw the project (e.g rest of our class or parents).

For the first step, the following solutions can be proposed:

Scribble

www.scribble.com

Scrible is an application that can be easily use if your web browser's is Chrome. This is basically a plug-in for saving, commenting, and annotating articles that we can find on the web. Both: teachers and students can use Scrible to take notes on online articles right from the webpage, create citations, save bibliographies, and integrate their work to Google Docs on Google Drive. Teachers also can organize students by groups, curate a classroom library of student annotations. Scrible offers a free basic version and a paid premium version.

Advantages:

Easy to use, have the free version that can be sufficient for the purpose of searching materials.

Disadvantages:

English version only

See:

<https://youtu.be/fLsOwUr27t4>

Scoop it!

www.scoop.it

Scoop it! Is very similar to scribble, but is more complex. It allows to search, group and share materials through social media or prepared web site. It is a quite powerful tool, but even with the free of charge plan that is limited to basic features, it can be useful to choose the material for pupils.

Advantages:

It allows to publish the results of searching.

Free plan is enough to search and publish materials.

Disadvantages:

It is rather too complicated to use by pupils.

English version only.

See:

<https://youtu.be/L5uTl5irFNc>

Getpocket

www.getpocket.com

Getpocket is a tiny browser tool that allows to collect interesting web pages, documents in one place and save it to use off-line. They can be then group in one place, e.g. web page, or just send by an e-mail. With this tool, collecting information needed is simple and can prepare a quite big set of materials for selected topic.

Advantages:

It is simple, easy to use.

It is in national languages.

It can be used in smartphones.

Disadvantages:

Some useful tools are only in premium version – payable.

See

<https://youtu.be/lRXyq-WqcCk>

Voki

www.voki.com

Voki is a full equipped environment to create, process and develop virtual class. It can be used in all of topics described in this module. But for the need of this topic it has one useful tool that can help in organizing the project groups. It has been mentioned before, that in order to give proper tasks to children with proper capabilities, the teacher need to know their pupils. It is good to let them introduce themselves in a way that can be fun, but most of all encourage children to speak about themselves. To do so, let them create their own avatars. By a tool present in Voki, children can create their own avatar, with specific appearance, features, and roles. By this we can get to know them and let them be creative. While other features of the website is limited on free version to one class and five students, the creator of avatars is free of charge.

Advantages:

It develops pupils' creativity

Teacher can learn a lot about his/her pupils.

It can make every lesson more attractive.

Disadvantages:

More features are payable.

It is in English only

See:

<https://youtu.be/g8vpI7pCjto>

Topic 2: Tools and applications that support development of media and creative competences

The role of the teacher at an early school age is specific, however it does mean that most all of the features that such teacher must have should be also present at further stages of education. The teacher is a guide in the world of knowledge, but he/she is also a role model for students, especially at the beginning of the school journey. This is why the teacher must have most of competences that he/she tries to teach. Including media and creative competences. We start the presentation of some proposals with those, who are directed mostly to teachers.

Power Point

Power point is a program that is part of Microsoft Office package. It is very popular to create multimedia presentations on a base of static slides with many contents. These contents doesn't have to be limited to texts and pictures. In Power Point presentations we can embed videos, audio, animations, graphs, even sparkling letters. There are a lot of templates that can make presentation more interesting, and also a lot of tutorials to help us to do so.

Templates:

<https://www.slidescarnival.com/category/free-templates>

Tutorials:

https://youtu.be/u7Tku3_RGPs

<https://youtu.be/q1CMxb90g7c>

Advantages:

Lessons can be more attractive not only at academic stage, but also in primary school

Very popular format – easy to share and collaborate

With many languages

Many templates

Many tutorials

Disadvantages:

Price.

Prezi

www.prezi.com

Prezi is also a program to create presentations, but the way of processing the presentation is different. It is not based on consecutive slides, but it is more like thinking map, engaging more all those pupils who are really visual learners. By animations and “journey” through the topic, it is more persuasive than any other presentation. The free version allows to create and save presentations through the website. If you want to have standalone, offline version of the program, you must pay.

Advantages:

Visual attractive, useful in presentations in which it is important to maintain a storyline.

Disadvantages:

Requires access to the Internet or payable version.

See:

<https://www.youtube.com/watch?v=QadFvf3D8P8>

GIMP

www.gimp.org

Almost all people who deal with computers have heard about Photoshop. It is said to be the best program for professional graphics, but it also can be used by non-professionals, however it requires basic knowledge about the program and about digital photography. And Photoshop is also very expensive. Gimp is very similar in capabilities, but free and less complicated. Teachers can create pictures or unjust those who are already done. There are tools to paste additional parts of the picture, add text, and many more. For teacher's work possibilities of working with pictures are already limitless.

Advantages:

Free

Very powerful in capabilities

Accessible in national languages

Disadvantages:

A bit complicated, especially for the first use.

Requires basic knowledge about digital photography.

See:

<https://youtu.be/Q8C0LJPr64>

Lightworks

If you need to create a video, lightworks can be a best solution. This software is quite intuitive in use, however if you need some additional effects, you can go deeper into this program. In Lightworks you can edit, cut, join videos made e.g. by a smartphone, add subtitles, make some interesting and catchy effects. Some more complicated features are payable.

Advantages:

Intuitive for basic features.

Disadvantages:

Requires time to prepare a good video

Requires a good computer

English version only

See:

<https://youtu.be/489O4snfHg8>

Easelly

www.easel.ly

Presenting the results of the work can also be an important part of educational process. It concerns both sides: teacher, who have to decide about the visual side of the work, as well as pupils, who should present the results of the project. Easelly can help by creating visual infographics full of pictures, flow-charts. The preparing of infographics is not very complicated so it can be done by even youngsters.

Advantages:

Visual attractive

User friendly

Most features needed are free

Disadvantages:

Printing needs payable version

Available in few language versions.

See:

<https://youtu.be/okFohYJX5xo>

Storybird

www.storybird.com

Storytelling is a very important method for interpersonal, but also intrapersonal communication development. However storytelling in “classical” method at school that need to write a story is not very attractive, especially for children. Storybird can be a solution that changes storytelling into an adventure. There are also few ready courses about storytelling, e.g. how to become a comics writer. But Storybird can be also a tool for teachers who can create interesting and visually attractive stories for children to read.

Advantages:

Easy to use

Graphically attractive

Involving also parents

Disadvantages:

Some features are payable

English only

See:

<https://youtu.be/9nHo5KO4EO8>

Topic 3: Tools and applications facilitating group and project work of pupils

In any society, one of the most important factor that allows this society to work is cooperation. Thus, all competences that allows to cooperate become also one of the most important goals in educational process. There are many methods that allows to develop competences related with cooperation, one of the most efficient and most popular is the PBL method. This method however requires few activities that can be described as crucial for the process. From the pupils' perspective, the most important thing for acting efficient is communication and common coordination of activities. From the teacher's perspective there's need for coordination, supervision, and evaluation the pupils' work. Here there are two examples of tools that allows to coordinate project works (or group works in general) from both perspectives: teachers' and pupils'.

Easyclass

www.easyclass.com

Easy class is put here, as it can be a very good solution to coordinate pupils' work. But this is a complete and free tool that serves as a virtual class. So every teacher can be in touch with the class outside the school (e.g. during holidays within a school year, while the topic of the educational problem requires continuous work). Easy class have not only easy to use tools to create virtual education environment, but it gives also opportunity to manage information, create quizzes, differentiate tasks and methods (e.g. by visualizing). This is why Easyclass can be used at every topic described in this module. All the teacher has to do is to register. Adding pupils can be done by giving an access code to each pupil.

Advantages:

Complete educational environment

Free of charge

Multilingual

Disadvantages:

Practically none

See:

<https://youtu.be/s6qf8clPIHE>

Trello

www.trelllo.com

Trello is a tool made especially for project group working. It is simple and let to coordinate activities of every member of the group. Trello allows to divide activities according to the type (e.g.: ideas, things to do, materials, questions, things that are done). The information can be easily accessible to everyone, but they can also be directed to specific people. Teacher, as an administrator have the possibilities to set up tables and decides which information will go to which pupils.

Advantages:

Allows to easily control and supervise work of pupils

Multilingual

Basic features needed for work are free

Disadvantages:

More complicated features are payable.

See:

<https://youtu.be/xky48zyL9jA>

Topic 4: Tools and applications that can be used in analytical and evaluation methods

We have been speaking a lot about the need of gathering and choosing the right information from the ocean of data. But abilities to make an analysis of the material and create a plan of activities are also very important. In this section there can be find tools helping pupils to do so, e.g. to create mind maps. This can draw to efficient process of gathering information and assimilating their content. And to check the outcomes of this process it is necessary to do the process of evaluation. This process very often is badly associated with tests, exams, stress. It shouldn't be like that and thanks to the ICT tools, evaluation (especially self-evaluation) can be fun.

Mindmeister

www.mindmeister.com

Mindmeister is a tool for brainstorming and creating mind maps. It requires registration and has free version that allows to create up to three mind maps. It allows also collaborative works. It is quite easy to use and friendly even for young pupils. It also allows to access via mobile phone.

Advantages:

Good visually

Access via mobiles

Disadvantages:

English language only

Payable

See:

<https://youtu.be/jfIAqr6cBX4>

Mindomo

www.mindomo.com

Mindmodo is very similar to Mindmeister, but it also has possibility of downloading the program working off-line for preparing mind maps and materials. It also has possibility to create printouts, and is well integrated with other formats, like Microsoft Office or Google Documents.

Advantages:

Good visually

Access via mobiles

Integrated with other internet and IT tools

Many language versions

Disadvantages:

Payable

See:

<https://youtu.be/ePOGgNyEtcc>

Quizizz

www.quizizz.com

If we want our pupils to check if they acquired proper knowledge, we can make them participate in the test, which can be really stressful, but you can make this test a real

adventure-like challenge. With Quizizz. In this tool the teacher decides about the type of the quiz and prepare it. Then pupils got an access to the quiz and do it. They can do it even on their mobile phone.

Advantages:

It can make tests pleasure

Easy to use for both sides: teachers and pupils

Disadvantages:

English only.

See:

<https://youtu.be/bz0fB4u9uF8>

2.3 - Additional Reading (minimum 2 in English and 2 in national language)

Title	Availability
M.Sellinger, Information and Communication Technology in Schools.	https://core.ac.uk/download/pdf/48028468.pdf
ICT Tools in School – A Practical Guide (materials from IRRESISTIBLE Project.	http://www.irresistible-project.eu/data_storage/resources/IRRESISTIBLE_ICT-Tools_Practical_Guide_2016.pdf
Carla Haelermans, Digital Tools in Education.	https://www.sns.se/wp-content/uploads/2017/10/digital-tools-in-education.pdf

2.4 - Description of exercises

Exercises for self-improvement

Finding the alternatives

Try to find the alternatives for the applications described in the module.

TIP (How to do it?)

Try to do a set of keywords beginning with the name of the application followed with the word “alternative”, and main functionality of the app, then add the advantages and antonyms of the disadvantages. E.g.:

Lightworks alternative, movie editing, intuitive, Polish language

Then input these words into Google search and spend some time to get familiar with the results.

Advantages and disadvantages analysis

Get familiar with some programs that you find the most suitable for you and try to prepare your own list of advantages and disadvantages.

TIP

You can use the following indicators as a criteria:

The language.

Charges for using.

- On-line/off-line usage.
- Time spent for getting familiar with the application.
- Usefulness for your topic.
- Easiness to use it by your pupils.
- Visual attractiveness.

Lesson Plan

Try to make a lesson plan based on PBL method with use at least three of tools.

TIP

Take into consideration:

- The topic of the problem.
- The type of competences that you want to develop in your pupils.
- The time you have for carrying out the project.
- The abilities of you.

- The ability of your pupils.
- The resources you have (equipment, money, time).
- The abilities to reach resources by your pupils (computer or mobile access)
- The groups that you can create in your class. (Remember, that if you have various children, with differentiated capabilities and competences, you should put an attention to put the right pupils in the right group: in each group it is good to have: one leader, one informatician, one creator, etc.).

9 Implementation of the training

Go DIGITAL From theory to practice: Implementation and evaluation aims to design and implement a Professional Training Programme to enhance acquisition of digital skills for primary school teachers and utilize all products of the projects. IO5 provides the opportunity (for the first time in most of the partner counties) to implement the project outputs and resources developed, pilot test, evaluate and revise them before they are widely available for use at the National and EU level.

The recruitment process was carried out in two ways: intentionally by direct contact with teachers and school heads, as well as publicly, through social media. Therefore, only active teachers but also candidates for teachers and other stakeholders came for the training. In the recruitment form there were two possible methods proposed, all of them using blended learning, but one with real meetings prevailing and the second one with one introductory meeting and the rest on-line. Thus, two groups were established, with total of 33 active participants (over 50 people were enrolled but did not appear on the platform), both were trained by the qualified trainer: Adam Gogacz, Ph. D., who is a e-learning trainer with many years of experience with e-learning of teachers and students at educational science faculty.

Yet, the pandemic caused that two groups had to have the full on-line training. The trainings started from sending to the trainees the short manual about the training with the information on the project, aims and methods as well as instructions about the platform and how to log-in. Due to the fact that there was no possibility of organizing the initial meeting, the mentoring was enabled right from the start of the training: The Trainer had personal contact via e-mails with the participants.

Some of the participants (16) finished all the modules by completing all the badges: certificates for these people were issued. The rest did only these modules that they were interested in. Overall, from the 5 modules 87 badges were issued. The most popular was the first module about the Internet and the second about the Web Pages Design.

The course was assessed as very useful and important (see the section about the evaluation), but it was conducted in specific time of a pandemic which caused the problem with some participants who could not participate more actively due to their lack of ICT skills.

9.1. TRAINING GOAL

Digitally literate teachers, can be more effective in their work, use more user-friendly approaches, motivate students to learn and communicate with them through tools and methods of the technological world we live in. The specific objectives are:

- To implement the GoDIG Professional Development Programme for teachers and utilize, test and revise all products.
- To organize ICT training (in-house/work-school based) as it is needed to support teachers' digital acquisition.
- To organize and set monitoring and assessment guidelines to collect feedback, views, case studies, observations etc., both on-line and on-paper.
- To engage target group members in the project activities.
- To disseminate the project's ideas and promote further continuous professional development.

This pilot-testing was the up-skilling programme designed for Teachers and delivered as a tool for development of the new digital skills, assessed and validated through the Open Badges.

9.2. TRAINING TIMELINE & STRATEGIES

The training implementation was planned for 2 months between January 2020 and April 2020.

The content of the modules as well as ergonomy and effectiveness of the learning requires planning at least 2 months for implementation of the full training cycle for full e-learning or blended learning course. During the planning of the training we have to take into consideration multiple factors influencing and determining final schedule of the training as per tips:

- .1 Evenings or weekends for face-to-face training (the training have to be planned after classes in schools)
- .2 Weekends or evenings for synchronic communication
- .3 At least 2 months for intensive course (each day work) or longer
- .4 Bank Holidays, breakers and vacancies exclude from training schedule

It's hardly recommended to start by instruction and functional training on the platform functionalities. For this reasons during the project the partnership elaborated instruction for teachers and learners.

The participants have approximately one week to complete one module, after which period, the second one is opened. However the possibility of self-paced training can be enabled, giving the participants the opportunity to decide whether they want to work for shorter or longer period.

The training is designed in order to give the opportunity for self-learning. Due to the exceptional situation, related to the pandemic, previously planned blended learning was replaced totally by e-learning with introductory training as a basis for implementation of the GoDigital training.

This strategy was be used by GoDigital Partnership.

9.3. PARTICIPANTS CHARACTERISTIC

The training was dedicated to primary school teachers. In each partner country the participants was recruits among this target groups. The participants earned at least one Open Badge and more than half earned all badges with master badge of GoDigital project.

The training and whole project was recommended to the schools collaborators of the partnership. Due to this collaboration we had opportunity to have among the learners not only teachers but also headmasters, psychologists and pedagogics. So heterogenic group gives also synerd=gy effect to the enhancement of digital literacy of the participants.

9.4. FACILITATION TECHNIQUES USED (METHODOLOGIES)

Used methodology was conditioned by global, external situation related to the pandemic. Previously planned blended learning was replaced totally by e-learning with introductory training as a basis for implementation of the GoDigital training.

Additionally, the mentoring process were enabled by personal contact of The Trainer with all the participants that needed any help.

The majority of teachers taught all basic subjects of Arithmetic, Greek Language, Physics, Geography, History, Religion and some trainees music, history, French language and English.

9.5. TRAINEES TESTIMONIALS

This method of the training assessment and evaluation was used for collection of the opinions and advices from the end users of the training. The interview was leaded accordingly to the commons scenarios and instruction. The idea of the testimonial collection will give opportunity to design the principal strategies for the training implementation and deployment. The opinions of the participants show the way for improvement of the training and it's organization. Below we present testimonials of some of the participants.



Primary school teacher, Italy

I am a prevalent fifth grade teacher of primary school. During the course I learned how to create beautiful educational activities that I can use with children even during this lockdown period.

**Primary school teacher, Italy**

I am a prevalent third grade teacher of primary school. The course was very interesting because it allowed me to learn new strategies for involving younger children in activities that they like and, at the same time, helping them learn .I believe that all teachers should improve in these areas.

**Primary school teacher, Italy**

I am a class II teacher of primary school. Thanks to the information obtained in this course, I now feel ready to explain in a more understandable and close to the cognitive styles of children some topics that previously risked being too difficult. I highly recommend this course to all teachers.

**Woman, age 50 , French language teacher, Poland**

I teach the pupils from 5th to 8th classes. I started my teacher's career 8 ages ago, after the work in higher education administration. I'm also self-employed translator. GoDigital Training gives me the opportunity to enhance my digital skills in order to implement it in my everyday working practice. I will recommend the training to my colleagues .

**Woman, age 60, Mathematics teacher, Poland**

I'm the owner of the private math's school. I was disappeared when I realized that we have critical situation in the education due to the COVID pandemic. The situation was critical for private schools. GoDigital project and especially e-learning training was the best solution for us and just-in-time proposal. I will recommend the training to my colleagues. It's needed to have digital skills while we as a teachers want to follow our pupils.

**Woman, age 29 , Polish language teacher, Poland**

I'm working in e-learning private school. I know that as a teacher I have to enhance my skills continuously. GoDigital training was for me good opportunity to looking from the other perspective to the e-learning study. I found in the training inspirations for the strategy of my on-line classes. I will recommend this training for others.



Woman, age 43, Geography teacher, Cyprus

I really enjoyed the GoDigital course because I expand my knowledge regarding the digital skills and how to use specific tools and applications to make the lesson and the students to be more engaged and excited about the subject.



Man, age 39, Mathematician, Cyprus

One of the best experiences in my life because GoDigital course offers five core modules for the primary school teachers and how to use effectively technology in their classrooms.



Man, age 45 Mathematician, Cyprus

Everything was well organized. The trainers were all helpful in answering all questions and made me feel completely at ease. Definitely, I will use the GoDigital e-Learning Platform in my free time to explore more the Platform functionalities and learn more about each module. Thank you Emphasy Team! Thank you Erasmus+!



Woman, age 38 Art teacher, Cyprus

GoDigital Course was great! I learned a lot of new things, which I will use in the future. Thanks Emphasys Team for an amazing experience



Woman, age Primary school teacher, Bulgaria

I am teaching Bulgarian language and Literature, Mathematics, Social studies, Geography, Arts, History etc. to pupils from 1st to 4th grade. During the training I learnt how to prepare more attractive presentations and how to use applications in Internet, which will make the whole teaching and learning process funnier and more understanding for the pupils. For first time in my teaching experience I found tools I can use to improve the learning process for the students.



Woman, age 53, Primary school teacher, Bulgaria

I am a teacher since 1997. I usually teach the youngest pupils from 1st to 4th grade. As such young students sometimes, they are very hard to keep their attention on the studying material. The training helped me to acquire new digital skill, which will help me to make my classes more interesting and educating. My personal opinion is that every school teacher needs to improve their digital skills, because it will make easier their work with the students.



Woman, age 37, Primary school teacher, Bulgaria

I am teacher in Fifth Primary School “Georgi Izmirliev” in Blagoevgrad for already 10 years and I see how much the new generation has changed and how their needs are more and

more oriented towards technologies. I am very happy I could attend the GoDIGITAL training because it showed me many new Apps and tools I can use during my classes and also new features on programmes I have used. I definitely recommend the training particularly for primary school teachers.

**Woman, age 52, Primary school teacher, Bulgaria**

I am a teacher for 19 years and I love my job. As a primary teacher (1st-4th grade) I have to teach all basic classes. Pupils, especially when they are so young, are getting exhausted not only from the material they need to learn but also if it is only theoretically presented. In this matter the training helped me a lot to learn how to use and implement more and new interesting digital tools when I teach. I really found quite useful to learn about some Power point features I didn't know how to use before. What I recommend about the training is that it can be made regularly or at least for longer time.

**Woman, age 56, Primary school teacher, Bulgaria**

I am primary school teacher in Fifth Primary School "Georgi Izmirliev", Blagoevgrad. My teaching practice is already 29 years. I participated in GoDIGITAL training and it showed me many new ways of improving the teaching process. The biggest challenge for me was to understand most of the Applications because, there was a huge language barrier, even though everything was very well explained by the trainers. When I decide to use some of the tools or the applications, I will still need help. Nevertheless, I can make the learning process for my students much more attractive and easier with help of Gmail, too. I wasn't aware that I can share documents so easily and still can have a look on student's progress on it.

9.6.TIPS & HINTS

it is very easy to work with the platform and the containing learning materials are detailed and understanding. On the other side participants gained practical and new digital knowledge in working with the online tools, and as they confirmed, they will use it in their teaching in order to make the lessons more engaging for the students.

Even though there were certain gaps in participant's digital literacy, they exert to gain new skills and overcome their previous limits in using online applications and tools.

- All of the participants support the recommendation of longer duration and regular conduction of the training.
- Use your literacy skills acquired during the training in everyday classwork
- Be the trainer for your pupils
- Combine the possibilities for make your lesson attractive

For planning GoDigital Training follow the steps below:

- a Registration and participation procedures
- b on-line registration
- c selection of learning modules
- d time schedule,
- e Stock-taking (Skills Audit or self-assessment)
- f participation requirements
- g Implementation, monitoring and evaluation procedures
- h Assessment and validation procedures
- i Certification

Enjoy ☺

10. TEMPLATES

In this chapter you can find all ready template for GoDigital Training implementation. If you are Teacher – Participant and you would like to enhance your IT skills check the part FOR PARTICIPANTS. If you project to organize the training for others chcek the Part FOR TRAINER and FOR ORGANIZER. You can use it for free as well as our GoDigital platform <http://moodle.teachersgodigital.eu/> Enjoy.

10.1. FOR ORGANIZERS

Training Schedule

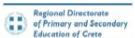


TRAINING SCHEDULE

Monday mm/d/yyyy hh:mm - hh:mm	Tuesday mm/d/yyyy hh:mm - hh:mm	Wednesday mm/d/yyyy hh:mm - hh:mm	Thursday mm/d/yyyy hh:mm - hh:mm	Friday mm/d/yyyy hh:mm - hh:mm
GoDigital - Presentation of the Project	Module 1: Internet	Module 2: LMS	Module 4: Hardware	Module 5: Hardware
hh:mm - hh:mm	hh:mm - hh:mm	hh:mm - hh:mm	hh:mm - hh:mm	hh:mm - hh:mm
Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
hh:mm - hh:mm	hh:mm - hh:mm	hh:mm - hh:mm	hh:mm - hh:mm	hh:mm - hh:mm
GoDigital Moodle e-Learning Platform	Module 1: Internet	Module 3: Web Design	Module 4: Hardware	Final tests & Exams Evaluation of the pilot test
hh:mm - hh:mm	hh:mm - hh:mm	hh:mm - hh:mm	hh:mm - hh:mm	hh:mm - hh:mm
Open Badges ecosystem	Module 2: LMS	Module 3: Web Design	Module 5: Hardware	Issuing certificates (and Open Badges)
Lunch				

This project has been funded with support from the European Commission. This communication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein. Project Number: 2017-1-PL01-KA201-038543

Attendance list

 UNIVERSITY OF SOCIAL SCIENCES	 Regional Directorate of Primary and Secondary Education of Crete	 Emphasys CENTRE	 EU Unipartners	 PUBLICA FIDES <small>Fondacija Zadružna Spoznavačka</small>	 Erasmus+
 GO DIGITAL					
GoDigital Pilot Training					
primeTECH: Promoting Technology enhanced Teaching in Primary Schools					
Day dd Month yyyy					
Venue:					
Module No					
	Name & Surname	Organisation	E-mail address/Phone number		Signature
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

10.2. FOR TRAINER

Power Point Template for trainers' presentations.



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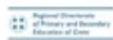


From Theory to practice

Pilot Training for primary school teachers on
digital skills improvement

Integrating Mobile Learning and Upgrading Teachers' Digital Skills:
A Tool Kit for Effective Strategies in Primary School - GoDIGITAL

Erasmus + Strategic Partnerships
Project Number: 2017-1-PL01-KA201-038543



IO5

Training content and goals

5 Modules

M1 Internet

M2 LMS

M3 Web Design

M4 Hardware

M5 Tools / Applications



...
DESIGN
DEVELOP
IMPLEMENT
EVALUATE
...

TOOL KIT
for
primary
teachers

DEVELOPMENT
PLAN for primary
schools

Teachers' ICT
competences
on a high level

Digital oriented
school

Digital friendly
education for
STUDENTS

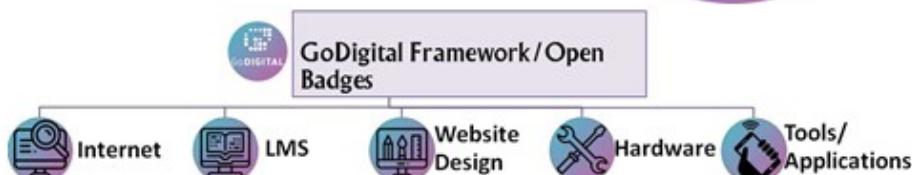
Consortium



GoDIGITAL Erasmus + Strategic Partnerships
2017

105

Open Badges



GoDIGITAL Erasmus + Strategic Partnerships
2017

105

Module 1 - Internet



GoDIGITAL Erasmus + Strategic Partnerships
2017

IO5



GoDIGITAL Erasmus + Strategic Partnerships

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2017

Photos



IO5

Graphics

 Społeczna Akademia Nauk Regional Directorate of Primary and Secondary Education of Crete Emphysis CentreScuole Paritarie dell'Istituto delle
Materne Pie dell'Addolorata Sdruženje Yuni Partners Fundacja Zaufania Społecznego
Publica Fides

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



GoDIGITAL Erasmus + Strategic Partnerships
2017

105

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2017

School Daily Lesson Plan for trainers

I

DAILY LESSON PLAN

Module: _____
Date: _____
Instructor: _____

ACTIVITY 	
OBJECTIVES 	
EVALUATION 	
NOTES 	

Co-financed by the Erasmus+ programme of the European Union

10.3. FOR PARTICIPANT

Application form

APPLICATION FORM FOR TRAINING

THE FORM SHOULD BE COMPLETED READY, IN CAPITAL LETTERS

Participant details:

Name:

Surname:

Birth Date:

Place of birth:

Company name:

Street:

Postcode:

City:

Phone: + 48 - - - -

e-mail:

Contact: Fundacja Zaufania Społecznego Publica Fides – dr Anna Soltys
+48 601 944 052; e-mail: anna.soltys@o2.pl



I consent to the processing of my personal data contained in the application form above for the purpose of training implementation by the Social Trust Foundation Publica Fides in the frame of Erasmus+ Programme, KA2, GoDigital Project, accordingly to the GDPR rules described below.

.....
DAY-MONTH-YEAR, Participant's Signature



CONFIRMATION OF PARTICIPATION: I declare that I have read the GENERAL CONDITIONS FOR PARTICIPATION IN GODIGITAL PILOT TRAINING FOR PRIMARY SCHOOL TEACHERS in the frame of Erasmus+ Programme, Electronic sending and submission of the APPLICATION FORM FOR TRAINING is tantamount to acceptance of the Rules of Participation*.

*Rules of participation needs to be signed in separate document

DGPR INFORMATION

In implementing the information obligation arising from Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46 / EC (general regulation on data protection) - hereinafter "GDPR", we hereby inform you on the principles of personal data processing for the purposes of implementing Erasmus + KA2, GoDigital project, and in particular participation in training under the above-mentioned project.

1. The processing of personal data by the bodies of the European Community (institutions and bodies of the Union) takes place on the basis of the provisions of Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of individuals with regard to the processing of personal data by institutions, Union bodies and organizational units and free movement of such data and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002 / EC.
2. The regulation provides a specific regulation of the processes of handling personal data by Union bodies. Erasmus + is the European Union Program in the field of education, training, youth and sport. Therefore, the entity determining the purpose of the Program (as well as the purposes of processing personal data that appear in connection with the implementation of the Program) is the European Union (specifically the European Commission). The European Commission acts as the Administrator of personal data.

In accordance with art. 13 paragraph 1 and 2 of Regulation (EU) 2016/679 of the European Parliament and of the Council on the protection of individuals with regard to the processing of personal data and on the free movement of such data (GDPR), we inform you that:

3. The administrator of your personal data is the Public Trust Foundation **Publica Fides** with its registered office in **Lutomiersk, Poland** (postcode **95-083, ul. Dabrowskiego 2**)
4. Personal data provided to the Administrator through training applications under the GoDigital Erasmus + program will be processed on the basis of your consent in order to recruit Participants for training under the Erasmus + Program, GoDigital project.
5. Providing data is voluntary, but necessary to achieve the purposes for which they were collected.
6. Your personal data will be stored for the period necessary to implement the above, purposes and archival and statistical obligations of the Administrator.
7. You have the right to access your data and the right to rectify, delete, limit processing, the right to transfer data, the right to raise objections, the right to withdraw consent at any time without affecting the lawfulness of processing based on consent before her withdrawal.
8. The personal data protection inspector at the Social Trust Foundation **Publica Fides**, supervising the correctness of personal data processing, is **Mrs Anna Soltyś**, who can be contacted via the following email address: publicafides.foundation@gmail.com.

General Conditions and rules for participation in the training



www.teachersgodigital.eu

GENERAL CONDITIONS FOR PARTICIPATION IN GoDIGITAL PILOT TRAINING FOR PRIMARY SCHOOL TEACHERS

Introduction

The training content was developed by an international consortium as part of the Erasmus + KA2 project Integrating Mobile Learning and Upgrading Teachers' Digital Skills: A Tool Kit for Effective Strategies in Primary School – GoDIGITAL, Erasmus + Strategic Partnerships 2017 Project Number: 2017-1-PL01-KA201-038543.

The training is aimed at enhance the digital skills of primary schools teachers in order to implement new technologies in everyday classrooms practice

The training consists of five modules:

- Module 1: Internet
- Module 2: LMS
- Module 3: Website Design
- Module 4: Hardware
- Module 5: Tools/Applications

Each module contains didactic content, additional materials, exercises and a test. The completion of the Module finish by issuing of the Open Badge related to the topic at after completion of all planned Modules the consortium issues to the Participant general GoDigital Badge, confirming acquisition of all planned skills and knowledge.

Open Badges are verifiable, portable digital badges with embedded metadata about skills and achievements. They comply with the Open Badges Specification and are shareable across the web. More information on the website <https://openbadges.org/>

TERMS OF PARTICIPATION

1. The training is organized by the Social Trust Foundation Publica Fides with headquarters in Lutomiersk, ul. Dąbrowskiego 2.
2. The training will take place ADDRESS, FLOOR, ROOM on DATE, HOUR
3. A Participant in the training is any person whose participation in the training was declared on the Organizer's application form sent to Organizer no later than 5 days before the start of the training via e-mail publicafides.foundation@gmail.com or online form www.onlineform.pl.
4. The Participants declare their participation in the all sessions of the training.
5. The Participants agree at processing of personal data as per described in APPLICATION FORM FOR TRAINING, DGPR rules*.
6. The Participant declare completion all the tests and earning all training badges
7. The Participant may resign from participation in the training more than 7 days before the start of the training. The resignation should be sent to the e-mail address: publicafides.foundation@gmail.com
8. The Participant consent to Fundacja Zaufania Społecznego Publica Fides photograph and/or video of himself/herself as per CONSENT FOR THE USE OF PHOTOGRAPHS OR VIDEO rules*.

I accept the terms and conditions

.....
DAY-MONTH-YEAR, Participant's Signature

*Requires additional consent signature in the separate documents

This project has been funded with support from the European Commission. This communication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Consent Photos & Videos



PF
www.publicafides.com
publicafides.foundation@gmail.com
publica.fides@o2.pl
+48 601 944 052
+48 609 574 729

CONSENT FOR THE USE OF PHOTOGRAPHS OR VIDEO

Fundacja Zaufania Społecznego Publica Fides recognizes the need to ensure the welfare and safety of all people taking part in any activity associated with our organization.

We would like to ask for your consent to take photographs/videos of the event or activity that may contain images of you. It is likely that these images may be used as:

- A record of the activity or the event
- Publicity material for further activities or events on leaflets/websites/magazines
- Illustrations of the activities or events in published articles

Fundacja Zaufania Społecznego Publica Fides will take all steps to ensure these images are used solely for the purposes they are intended. If you become aware that these images are being used inappropriately you should inform **Fundacja Zaufania Społecznego Publica Fides** immediately.

I consent to/ do not consent to **Fundacja Zaufania Społecznego Publica Fides** photograph and/or video of myself.

Date: _____

Signature: _____



Participants Testimonials

IO5 Participants Testimonials

Version 1.0.

The idea of the testimonial collection will give opportunity to design the principal strategies for the training implementation and deployment. We will use as well collected opinions for the SWOT Analysis, being one of the quality tool for improvement of the final product of the project. All testimonials will be the part of the Guide Tool.

Examples of the interview questions:

What subject do you teach?

How long do you teach in primary school?

Which classes do you teach?

How do you assess GoDigital training?

Do you know how will you use the skills acquired during the training?

Have you some suggestions for training improvement?

Will you recommend this training?

Is this training needed for teachers in primary school?

Examples of testimonials



Iwona, age 50

French language teacher, Poland

I teach the pupils from 5th to 8th classes. I started my teacher's career 8 ages ago, after the work in higher education administration. I'm also self-employed translator. GoDigital Training gives me the opportunity to enhance my digital skills in order to implement it in my everyday working practice. I will recommend the training to my colleagues .



Jovanni, age 35

Mathematics teacher, Italy

Lore ipsum, Lore ipsum.



Ivanka, age 45

Biology teacher, Bulgaria

Lore ipsum, Lore ipsum.



Yannis, age 26

Geography teacher, Cyprus

Lore ipsum, Lore ipsum.



Maria, age 33

Physics language teacher, Greece

Lorem Ipsum, Lorem Ipsum.

Certificate Template***CERTIFICATE***

This is to certify that

Name Surname

conducted a model lesson using GoDigital tools

within Erasmus+ project

no. 2017-1-PL01-KA201-038543

„GoDigital - Integrating mobile learning and upgrading teachers' digital skills: A tool kit for effective strategies in primary school”

Społeczna Akademia Nauk
90-113 Łódź, ul. Śląskiewicza 9
tel. (42) 664-22-78
NIP 725-105-62-20 REGON 470985279

DYREKTOR
Działu Projektów Międzynarodowych
Społecznej Akademii Nauk
Aleksandra Zajc
mgr Aleksandra Zajc

Lodz, 30th September 2020

Aleksandra Zajc
Director of International Project Department
Społeczna Akademia Nauk

10.4. EVALUATION FORMS

For trainer

English Version

<https://docs.google.com/forms/d/1a-EfNO3LIQVBDEirEgtJIMIvBII05MhVcpJ3pJgbUYE/edit>

Polish Version

https://docs.google.com/forms/d/1YophlQvzR2_JxUKz2XRR1pbXwOMrp79LWjlqORPwVfg/edit

For trainee

- Platform evaluation form

English Version

https://docs.google.com/forms/d/1DxYvkh3ZqeZ3G7_k8tpDJvr9lI7YM9xr5OgYuMjNHOE/edit

Polish Version

https://docs.google.com/forms/d/1p4AAOe32oLoRpZ7HJS73dWnOjxLpDR8M7GAe3golqfQ/edit?usp=drive_web

- Course Evaluation

English Version

<https://docs.google.com/forms/d/19DuHGqRdWteisJpTHBwlHBMjX1-eKmpSYe7k6PkBzHA/edit>

Polish Version

https://docs.google.com/forms/d/1TuRHNgIfgg3hEhxJKLVHEKgiT1lelxpPkW_rZ7g2k4/edit

10.5. OTHERS

- Promotion strategy guide

Guidelines and tips on the Strategy for promoting digital competences in schools

Guidelines and tips on various level:

- 1 Level 1: Primary school teachers

- 1.a The school can organise info days/open days for the EU Code Week, EU Robotics Week to promote the digital competences for primary school teachers
- 1.b The school can organise an Open Badge Day where they will present the idea of using the open badges as the main system of recognition and validation for primary school teachers
- 1.c Primary school teachers can organise various workshops – internal trainings for learn and promote new technologies

2 Level 2: Primary school students

- 2.a Primary school teachers can organise some extra curriculum activities for the students for example workshops regarding digital competences
- 2.b Primary school teachers can organise some study visits to companies such as Universities, IT Companies
- 2.c Primary school teachers can organise various workshops for students to learn new technologies for communication between them or students-teachers

3 Level 3: Parents and Community

- 3.a Primary school teachers can introduce new technologies for a communication between teachers and parents such as Edmodo
- 3.b Primary school teachers can organise workshops and open days for teachers-parents-students to learn more about digital competences, digital technologies for online learning in high-risk circumstances (such as pandemic of COVID-19)
- 3.c Primary school teachers can create a social media campaign for a petition/declaration/memorandum of commitment between public authorities and schools.
- 3.d Primary school teachers can create a social media campaign to organise frequent meetings with stakeholders/policy makers such as Ministries, Chambers etc.

➤ Leaflet

English Version

<https://drive.google.com/drive/folders/1oIDdzpNkuyr7QEXUmxEj-jdZCcVAYk-P>