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GUPP: Upgrading skills for EU Greener Public Procurements in Construction Works

Grant Agreement no: 2020-1-FR01-KA204-080421

IO2. Development of the GUPP capacity building programme

Trainers' Handbook

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1. GUPP GREEN PUBLIC PROCUREMENT IN CONSTRUCTION PROGRAMME

"Circular public procurement is an approach to greening procurement which recognises the role that public authorities can play in supporting the transition towards a circular economy. Circular procurement can be defined as the process by which public authorities purchase works, goods or services that seek to contribute to closed energy and material loops within supply chains, whilst minimising, and in the best case avoiding, negative environmental impacts and waste creation across their whole life-cycle."[1]

The GUPP training course for local authorities in construction, intends to provide a comprehensive introduction to the Green Public Procurement (GPP) process to incentivise and support local authority staff to utilise tools, coordinate information and resources, and verify the appropriate and relevant decision making in the GPP process. The following will be considered in the training of this programme.

-**Introduce** Circular Economy and GPP

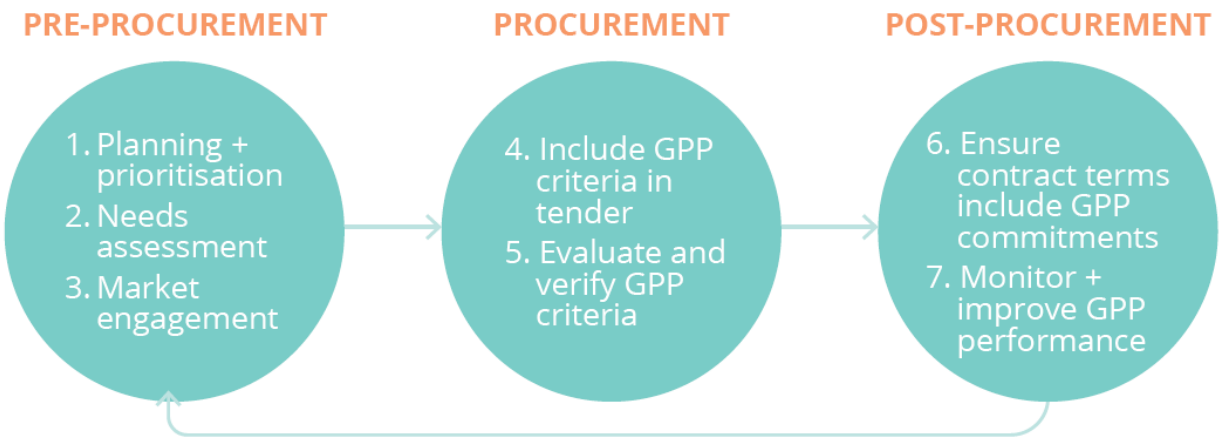
-EU and National GPP policies and legislation

-Circular Economy and GPP in **context**

-**Pre-procurement** (1. Planning + prioritisation; 2. Needs assessment; 3. Market engagement)

-**Procurement** (4. Include GPP criteria in tender; 5. Evaluate and verify GPP criteria)

-**Post-Procurement** (6. Ensure contract terms include GPP commitments; 7. Monitor + improve GPP performance)



[1] Tudor, T and Dutra, JCC (2021) *The Routledge Handbook of Waste, Resources and the Circular Economy.* Routledge ISBN: 987 0 367 36464-9 ISBN: 978 0 429 34634-7

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2. TIPS FOR USING THE TRAINERS MANUAL

It will be very helpful if trainers are familiar with the principal parts of the Learners Handbook before starting to deliver the course, as all learners will be expected to have read this document prior to the commencement of the course.

Purpose of the Trainers Manual

The Training Manual (TM) is a guide to help the instructor to deliver the GUPP Learning Units. The TM will summarise the methodology to be used by the instructor for each unit. The intention of the manual is not to be over prescriptive so that there is flexibility for the trainers to employ their own pedagogical approaches and concentrate on areas they feel needs greater attention. The objective is to achieve the learning outcomes outlined for the course.

The Training Manual will outline the objectives for each unit, clearly demonstrate what is required of the trainers, listing resources required and timings for delivery. The TM provides directions for the learners as how to complete the activities and direction to the trainers regarding assessment. It will provide a breakdown of assessments, exercises and various activities to be completed by the learners. Due to the varied experiences and having mixed professionals participating, learners will interact and respond differently to the information delivered, therefore some exercises may take longer or shorter than the recommended times allocated.

The course is broken up into a number of 'activities' designed to engage learners in learning. Activities include a PowerPoint presentation, video presentation, demonstrations, assessments, discussion and exercises that can be either individual or group work. These will be discussed in greater detail below.

Activities may be assessed for certification purposes. Learners can be assessed individually or as part of a group. In group assessment there is an individual assessment component so learners cannot 'opt out' of the exercise. Learners must be informed prior to any assessment activity that they are going to be assessed.

Format of Training Materials

The course is constructed so that there is a combination of PowerPoint presentations, group and individual activities and exercises, homework and demonstration.

The programme coordinator will provide a resource pack to the trainer, which will have all PowerPoints, worksheets, poster sheets, materials, etc. included.

For each Unit, a summary will be presented on a PowerPoint slide, which will provide an overview of the content within that unit. This will also include a set of instructions for the learners clarifying what will be presented and what is expected of them.

All worksheets and relevant materials should be sent/handed out to the learners as outlined in the trainer's manual. All worksheets are labelled and should be handed out at each activity or exercise. These can consist of individual worksheets, group activity sheets, posters or homework sheets. These sheets will be collected for assessment purposes at the end of each activity or exercise.

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Structure of Activities

As mentioned, the delivery of the course consists of a series of activities. Icons have been developed for the Training Manual to assist the trainer quickly identify the purpose of the activity.

The PowerPoint presentations will use these icons to aid the trainer and student to visually prompt what is required of them. Below is an explanation of some of the more commonly used icons which denote a type of activity.

Presentation

PowerPoint slides to be presented or class given formal instruction and information. These presentations may include some class/group discussions.

Plus, Minus, Interesting (PMI)

Pluses, **M**inuses and **I**nteresting things (or **I**mplications), PMI associated with a topic. This icon represents a brainstorming activity that encourages learners in a discussion to look at an idea from more than one viewpoint. It allows them to think broadly about an issue, make informed decisions and work as individuals, in pairs or as members of groups.

Think Pair Share (TPS)

Think-Pair-Share, TPS is where the individual learners share their thoughts/ideas with the group. A group worksheet will be completed for this activity at this point or discussion held within the group. This type of activity first asks the learners to consider a question on their own, and then provides an opportunity for learners to discuss it in pairs or small groups, and finally with the whole class.

Teamwork

The teamwork graphic indicates that at this point the group should work together to produce a single piece of work, which could include a poster, presentation or some other task as directed by the trainer.

Group Work

Presentation graphic indicates that the **group leader must present the findings of the group** to the class and respond to Q & A from the floor or findings recorded on a flipchart by the trainer.

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Videos

Video icon indicates that a video should be shown, and learners asked to take notes which will lead on to other activities

Activity

The Activity icon indicates that the instructor must bring the group to a practical activity or show them in a practical manner a key concept as part of the underlying theory. Learners actively work on an action to provide works for assessment.

Assessment

This icon indicates that there will be an assessment. The assessment may evaluate a group exercise, multi-choice or short answer type questions which will be distributed to the learners. Generally, assignments will be submitted to the instructor immediately after completion. As this is an accredited course the trainer must retain all completed worksheets and assignments to demonstrate to external examiners that there was assessment carried out in line with the criteria set out below. To aid supporting documentation photographs of posters and presentations should also be taken.

Dots and squares

- In a list of bullet points this type of bullet indicates information

- In a list of bullet points this type of bullet indicates a suggested action by the trainer or student.

Structure of Activities

'Video', 'PowerPoint presentation' and 'Demonstrations' are considered 'Activities' and from these activities are a series of exercises. These exercises may be individual, or group based. Whether group or individual a number of 'tasks' must be completed. The diagram below shows that these tasks can be PMI, TPS, Poster work, homework, teamwork or a class discussion.

The diagram below demonstrates how an 'Activity' relates to 'Tasks'.

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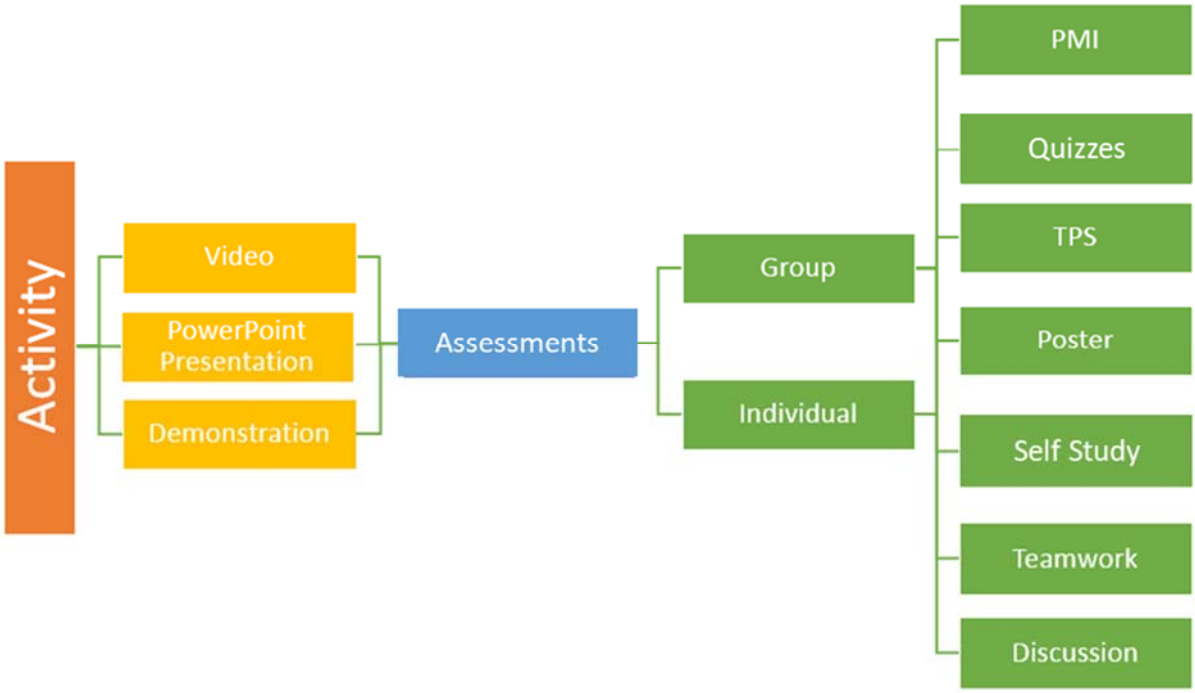

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3. GUIDE FOR TRAINERS ON GETTING STARTED WITH MOODLE

Moodle is a fun way of teaching! At least, when you know how to work with the platform or, if nothing else, have an idea what happens after you click a certain button. If you are a teacher who is new to Moodle and you're looking to explore the platform's capabilities, this chapter is for you.

Moodle is a platform for online learning that enables you to create e-courses, add assignments, and keep an eye on your students' progress. It also allows you to communicate with the students and encourage communication between them in forums and discussions. In short, the platform is multi-faceted and flexible, so it's easy to get confused when learning your way around for the first time.

This guide covers the basics of getting started with Moodle and some of the main everyday tasks you'll need to do as a teacher. You'll learn how to create courses and tests for Moodle and how to invite learners, provide them with assignments, and track their results. We've also included some useful links so you can dive even deeper into certain topics, if necessary.

Two quick notes before we get started.

Note 1: *This guide was written for teachers and doesn't cover the system administration part. We presume that you already have a learning portal up and running. If you don't have it yet, you can try using Moodle Cloud. It doesn't require any technical skills to launch the learning portal and allows you to set up in minutes. It also has a free plan, which is enough to familiarize yourself with Moodle and make an informed decision on further actions.*

Note 2: *Moodle is a highly-customized platform, so your portal may differ in appearance and functionality. To illustrate, we used a demo version of a school portal created by Moodle. You're most welcome to go there and click a couple of buttons on your own.*

CUSTOMIZING YOUR TEACHER PROFILE

Your teacher profile is available to your learners and colleagues, so it's a good opportunity to introduce yourself, prove that you're a human being and not a chatbot, and earn some trust from the students.

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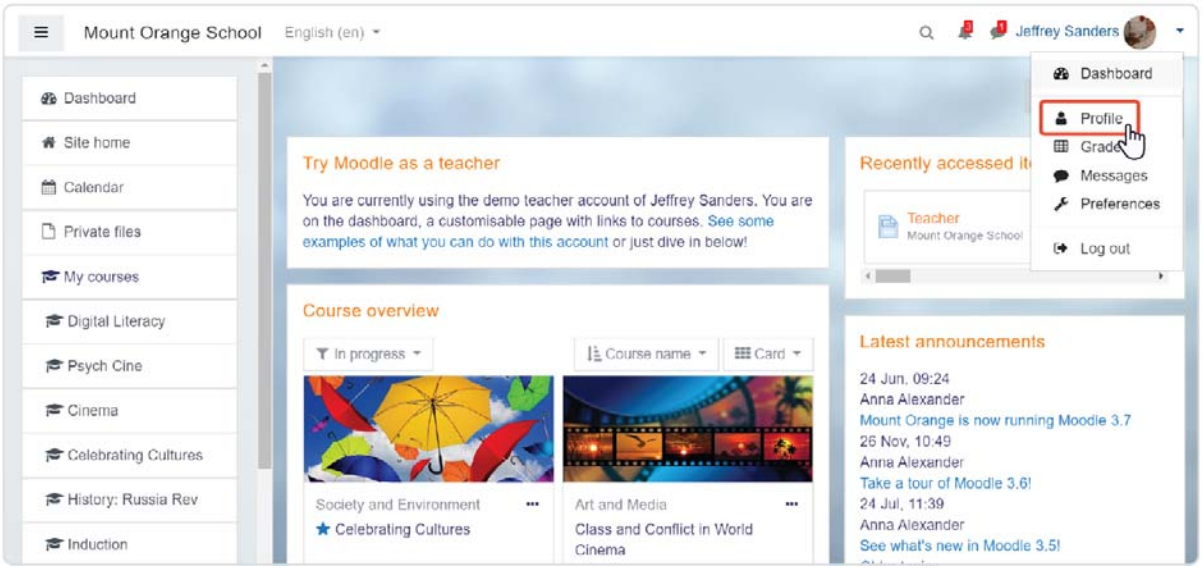
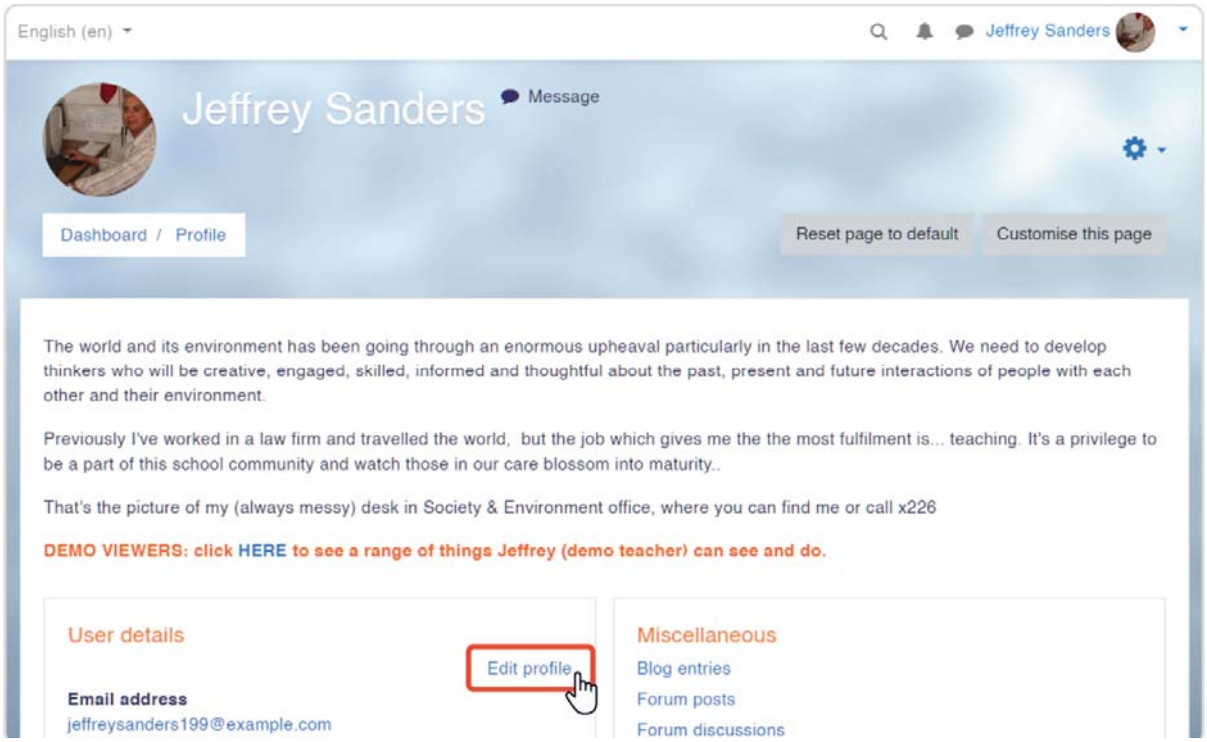


After clicking **Profile** in the upper right corner, you'll get to your personal page where you can edit personal information, add a photo, and create an introduction. Click **Edit profile** to do this.



There, you can enter some text about yourself (or record a video introduction, if you like), place a photo, and leave additional contact information.

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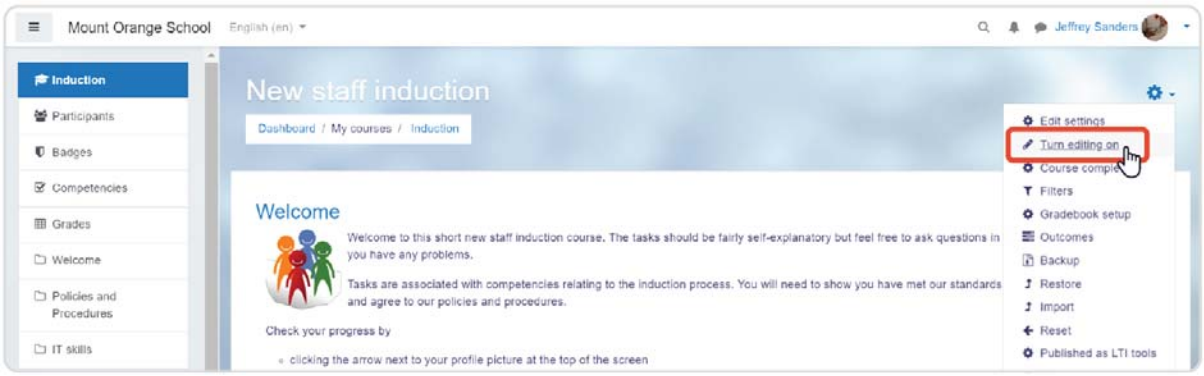
ADDING ACTIVITIES & RESOURCES IN ELEARNING COURSE

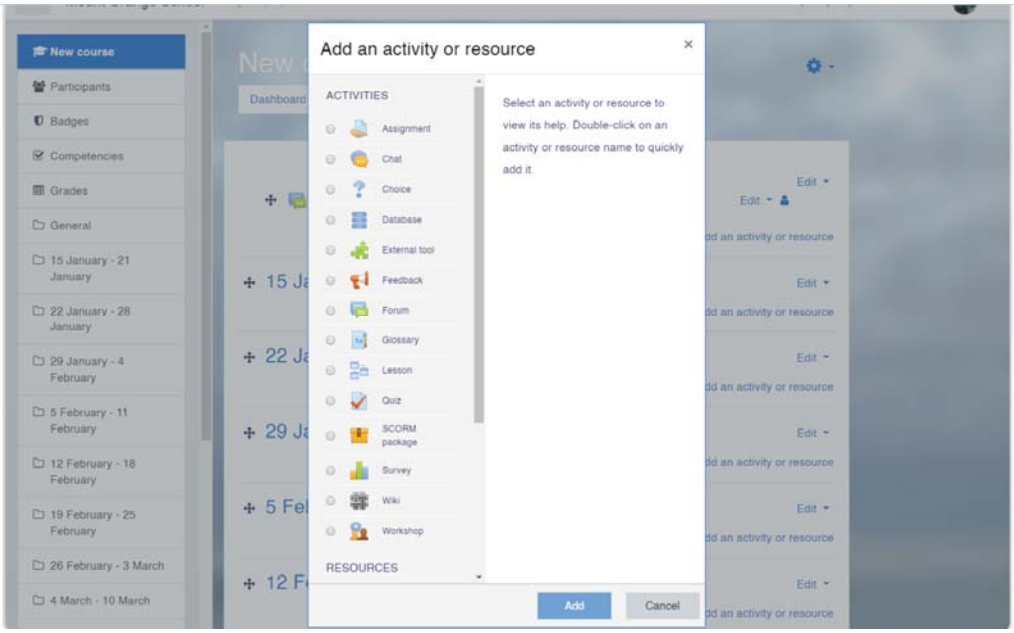
In Moodle language, activities are the ways students interact with a course. Quizzes, glossaries, forums, and assignments are all generally called 'activities.'

Resources are items that you can use to augment training. They can be documents or presentations, or even an external web page such as a certain video from YouTube.

To add an activity or a resource, turn on the **editing mode** by clicking the gear icon in the upper right.



When editing is enabled, there's a + **Add an activity or resource** icon after each section of a course. Click it, and you'll see a pop-up window with the list of all available options and their descriptions. There are 14 types of activities and 7 types of resources.



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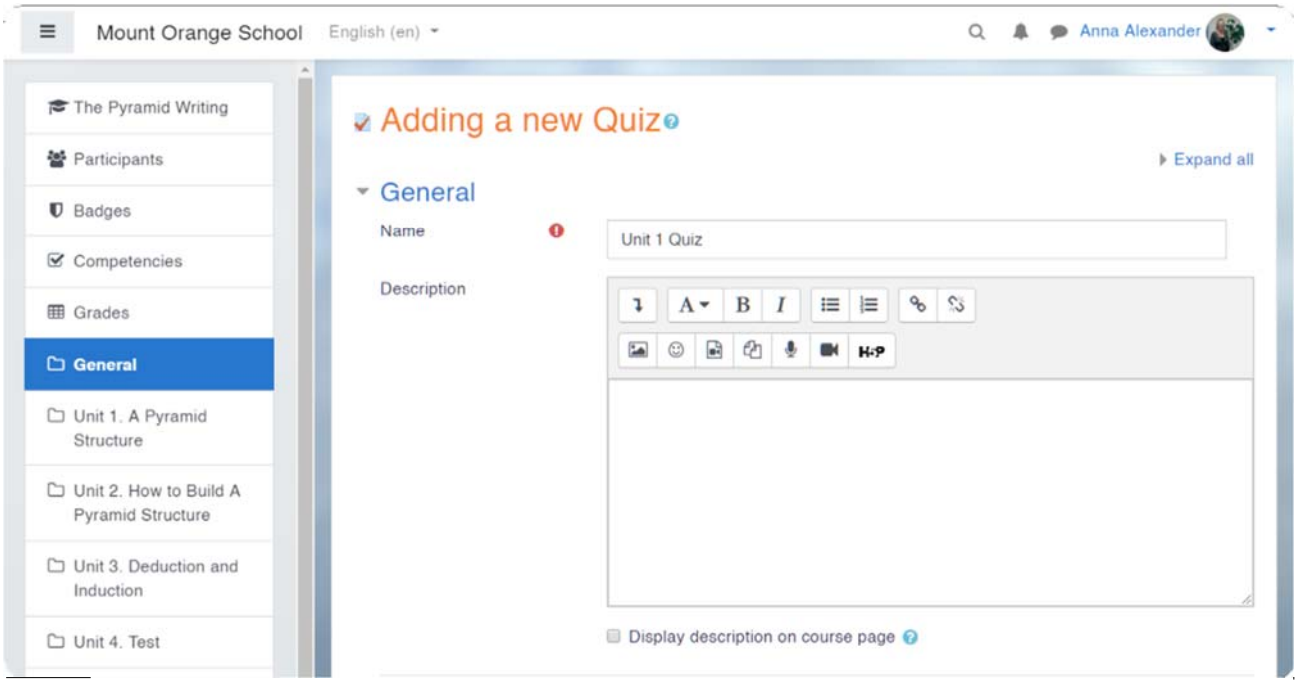
When you have chosen which type of activity or resource you'd like to use, click **Add**.

HOW TO ADD A QUIZ

Choose a section where you'd like to add a quiz, click+ **Add an activity or resource**, and choose **Quiz** in the pop-up window. After doing this, you get a quiz settings menu.



In our example, we've simply put "Unit 1 Quiz", but you can be more specific.

Fill in the name of the quiz. Then you can click **Save and return to course** since Name is the only field required for creating a shell for a quiz. However, feel free to explore other settings in this menu. For example, you can set time frames for assessment or limit the number of attempts allowed.

The next step is to fill this empty quiz shell with some questions. Click **Edit quiz** and, in a new window, click **Add → + a new question**.

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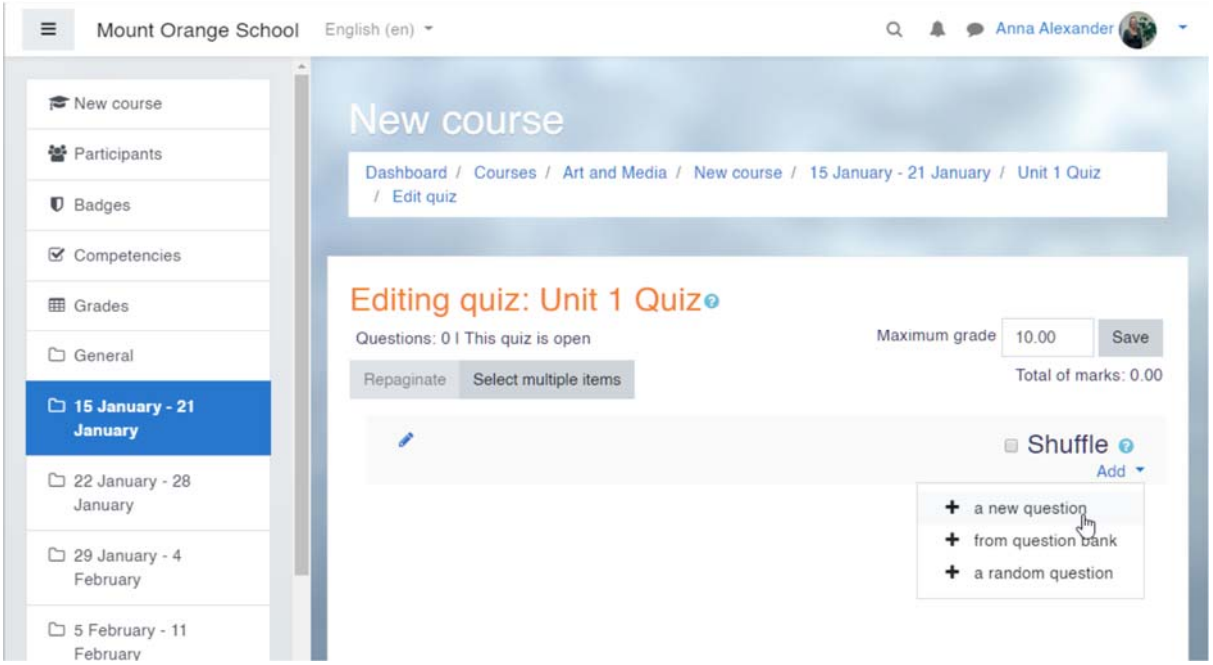

In Moodle, there are 15 types of questions you can use, such as multiple choice, matching, and drag and drop. Choose the type you'd like to use and click **Add**.

In a new window, you'll need to fill out the details of the question: its name, question text, answers, and feedback. The interface is quite self-explanatory, but in case you have trouble, there are detailed step-by-step instructions on how to create quizzes in Moodle.

When you're ready, click **Save changes**. Again, you'll find yourself in a quiz editing menu where you can repeat the same sequence of action and add as many questions as you need.

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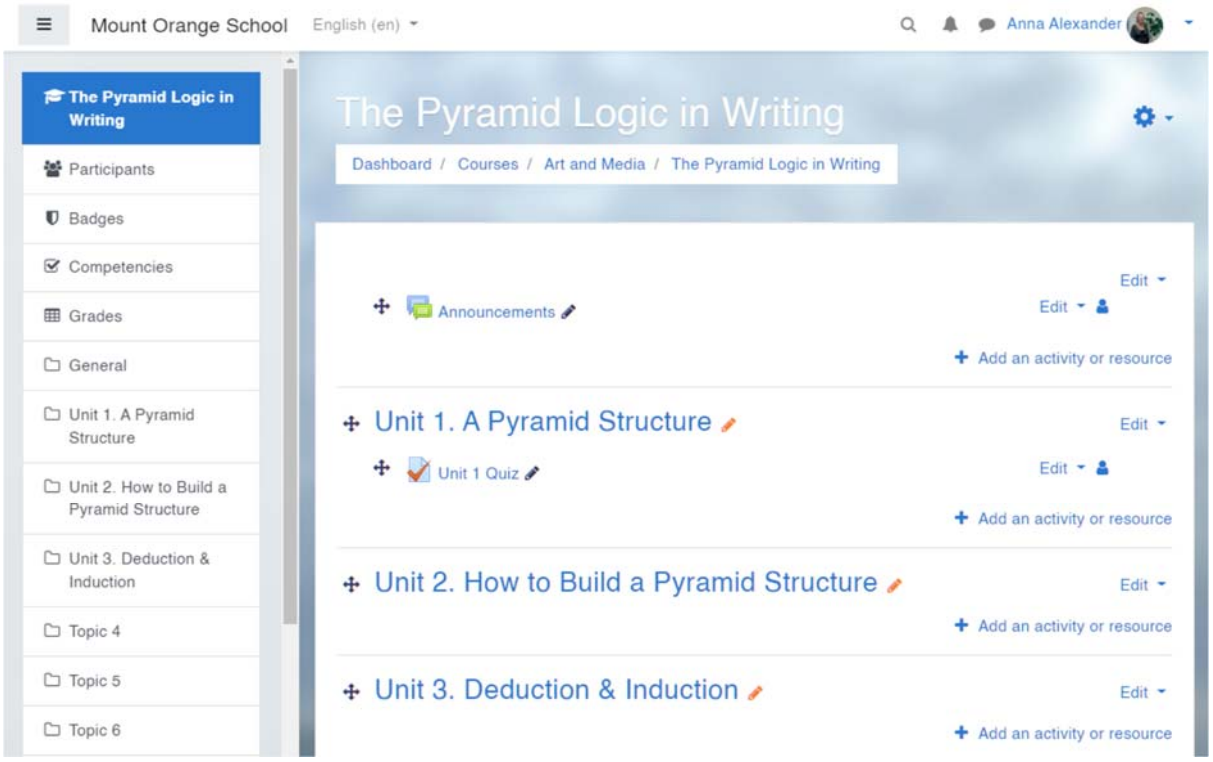

HOW TO ADD AN ASSIGNMENT

Creating assignments is a feature that you'll likely use very often as a teacher. With its help, you can ask your students to submit their homework and check how well the unit is being digested and provide feedback.

Just like with quizzes, choose the section where you'd like to add the activity, click **+ Add an activity or resource**, and choose **Assignment** in the pop-up window.

In a new window, give the assignment a name and specify what you expect your students to do in a description field. For instance, you can ask them to watch a video and share their opinion on the topic, or ask them to edit a text and submit an improved version, as we did in our example.

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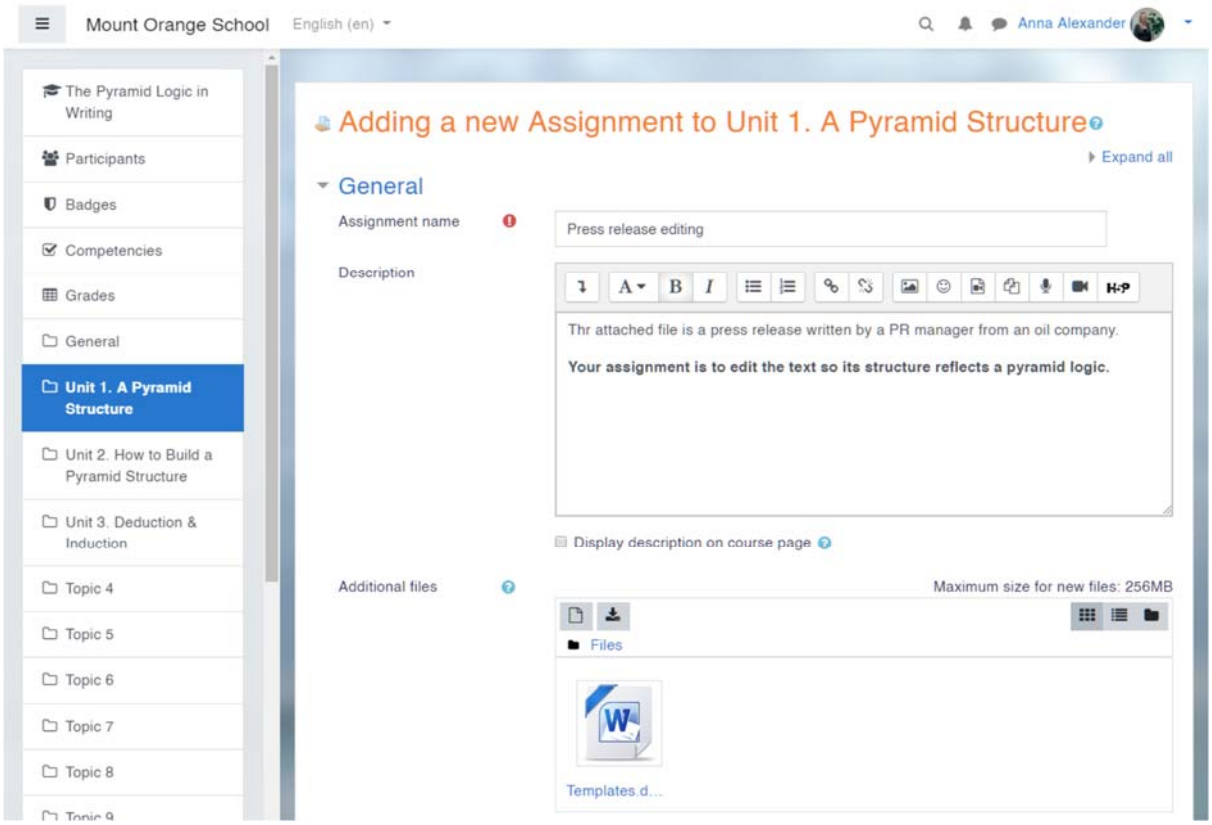
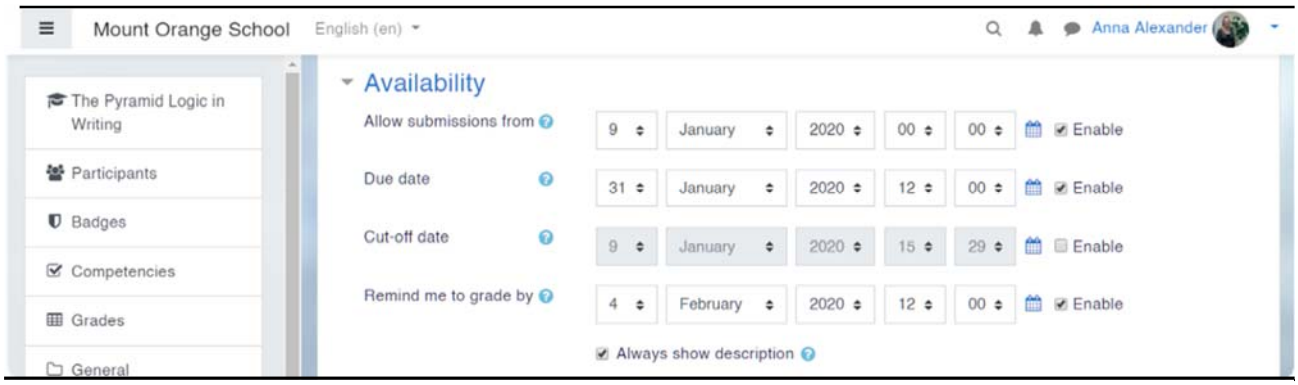


There are also a number of useful settings that are worth playing with. We'll mention just a few basic ones.

Availability

In this section, you can set time frames for submitting assignments or set a reminder to check students' work before a certain date for yourself.



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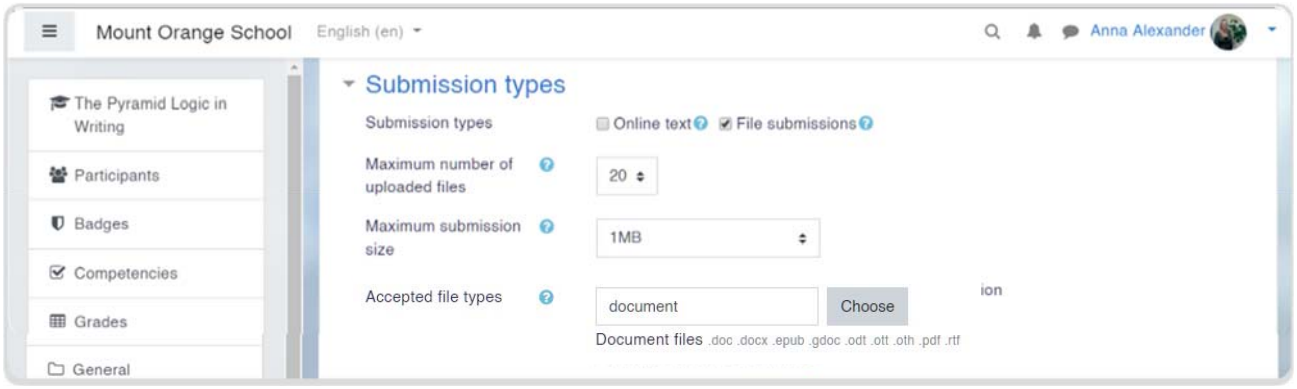
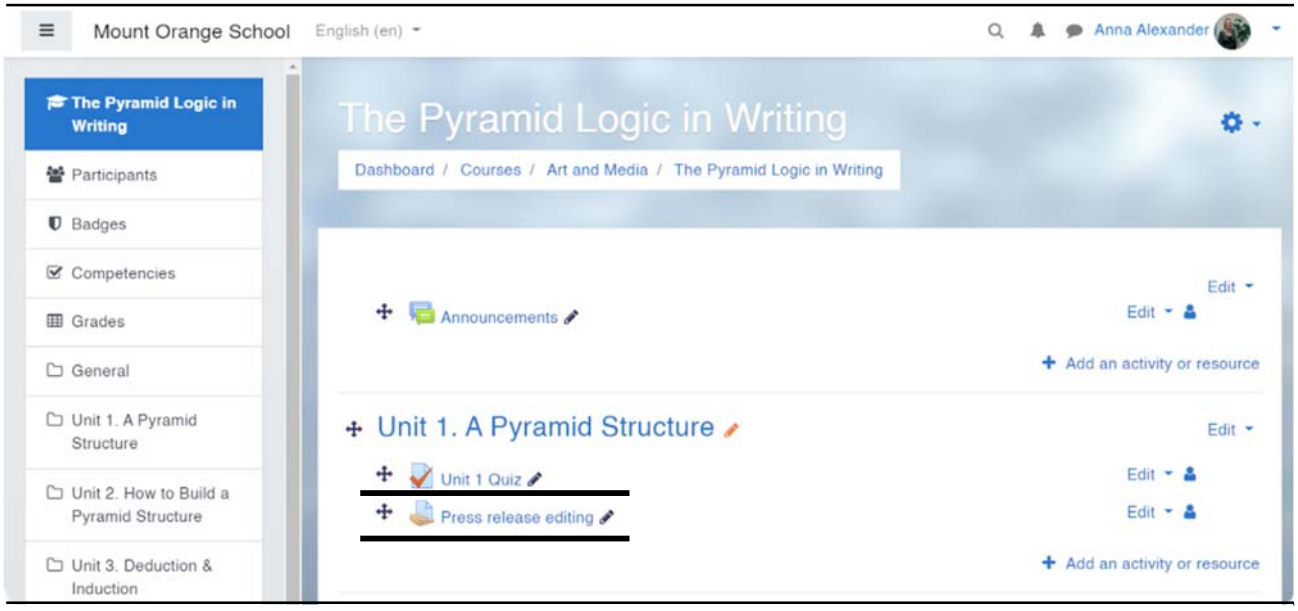
Submission types

In this section, you'll need to specify in what format you expect the students to submit their work. Choose Online text if you want them to type their responses right in Moodle, File submissions if you want them to attach a file, or both options at the same time.

You can also specify certain formats of files and the number of words in essays for the Online text option.



Click **Save and return to course** when you're done.



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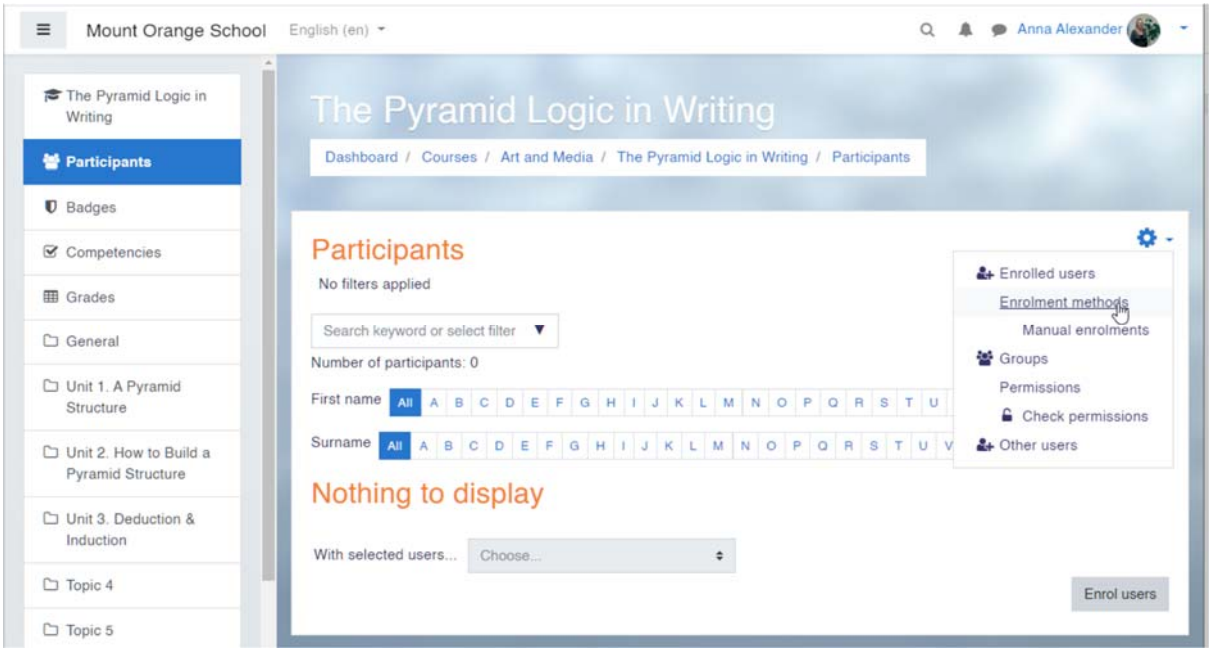
MANAGING LEARNERS

Now, when your course is ready, it's time to invite some learners to explore the content.

First, let's set up the enrolment methods. Within a course, choose the **Participants** tab in the left menu, then click a **gear icon** in the upper right and select **Enrolment methods** from a drop-down menu.



There are three enrolment methods available:

- Manual enrolment
- Guest access
- Self enrolment

By default, the only option enabled is manual enrolment. If you'd like to activate self enrolment or guest access, click the eye icon. If you also click the gear icon next to the eye, you'll be able to set up some additional settings such as enrolment duration, enrolment password, or a maximum number of users.

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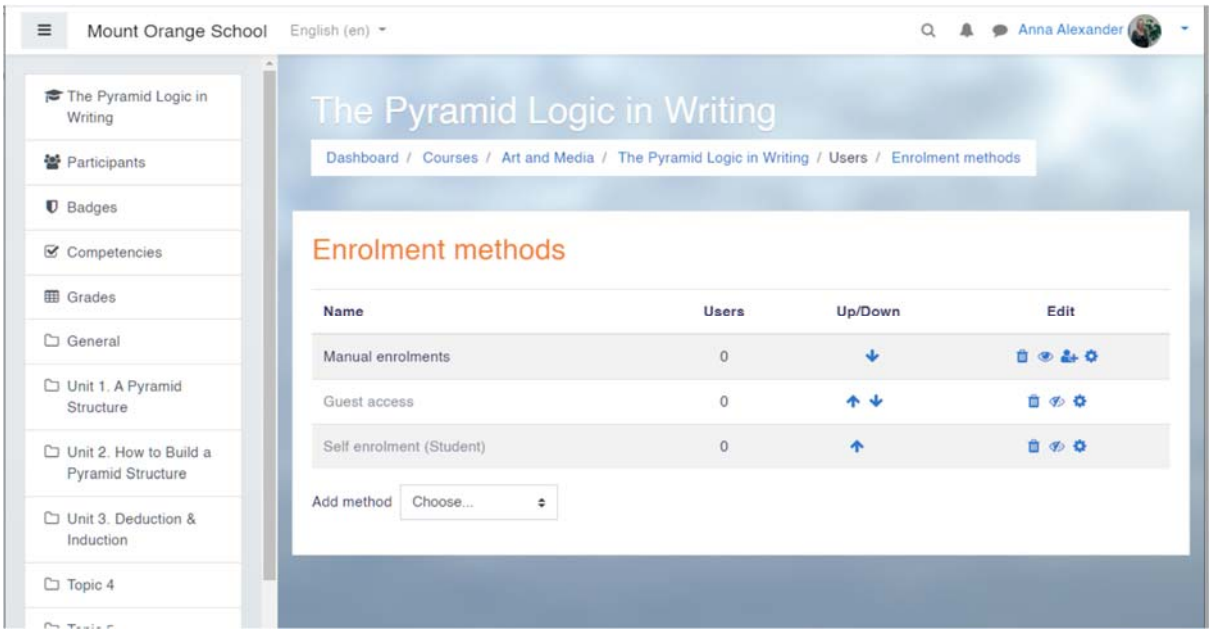

HOW TO ENROL STUDENTS ON A COURSE

Usually, teachers don't have to add users to the system, because the list of users is pre-loaded by an admin or a manager. So, to enrol students on your course, choose the **Participants** tab in the left menu. From there, click **Enrol users** in the upper right area and then, in a pop-up window, select users or groups of users from the drop-down lists.

When you have finished, click **Enrol selected users and cohorts**.

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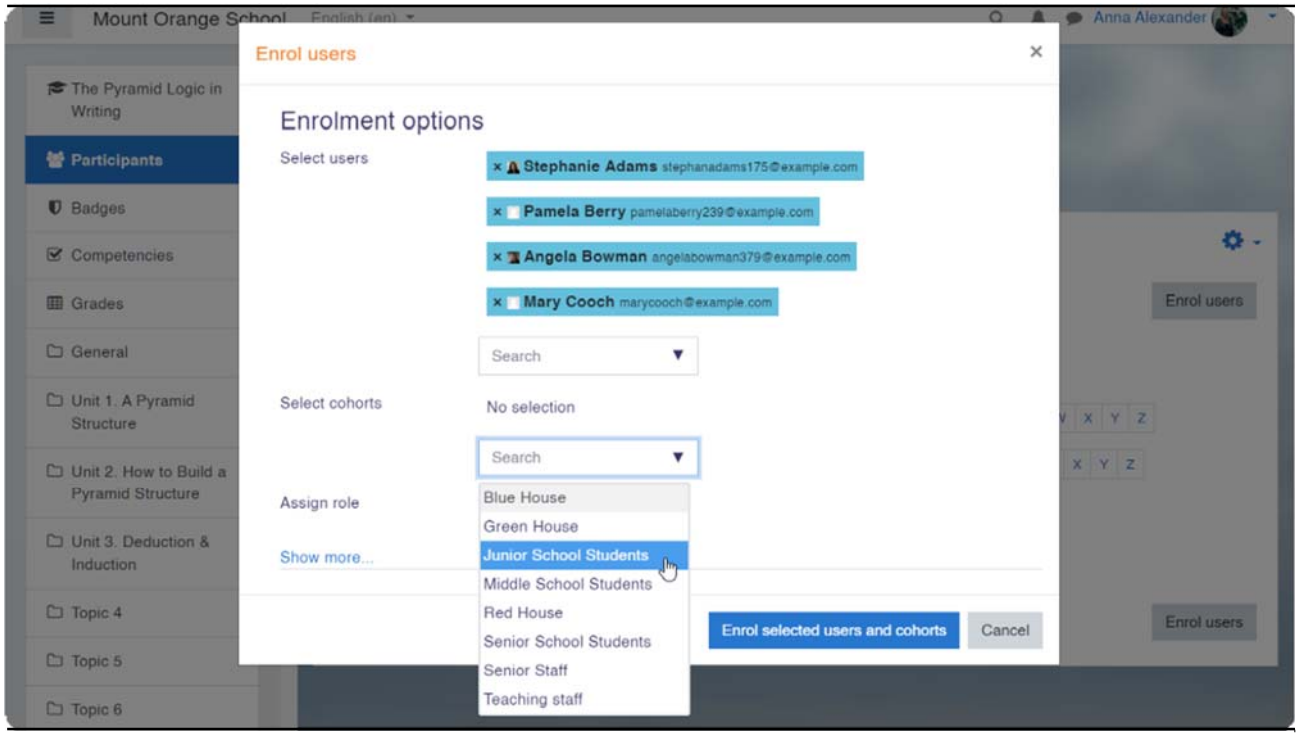

HOW TO CREATE GROUPS

For more convenience, you can also divide the enrolled users into groups. It's especially useful when you have different classes that study the same course, or there's another teacher assigned to this course, so you would like to split the learners.

To create a group, click on the **gear icon** in the upper right and select **Groups** from the drop-down menu. By the way, you may have noticed that in Moodle, you have to click this gear icon like, well, all the time! Think of it as a benefit: you'll definitely remember where it is.

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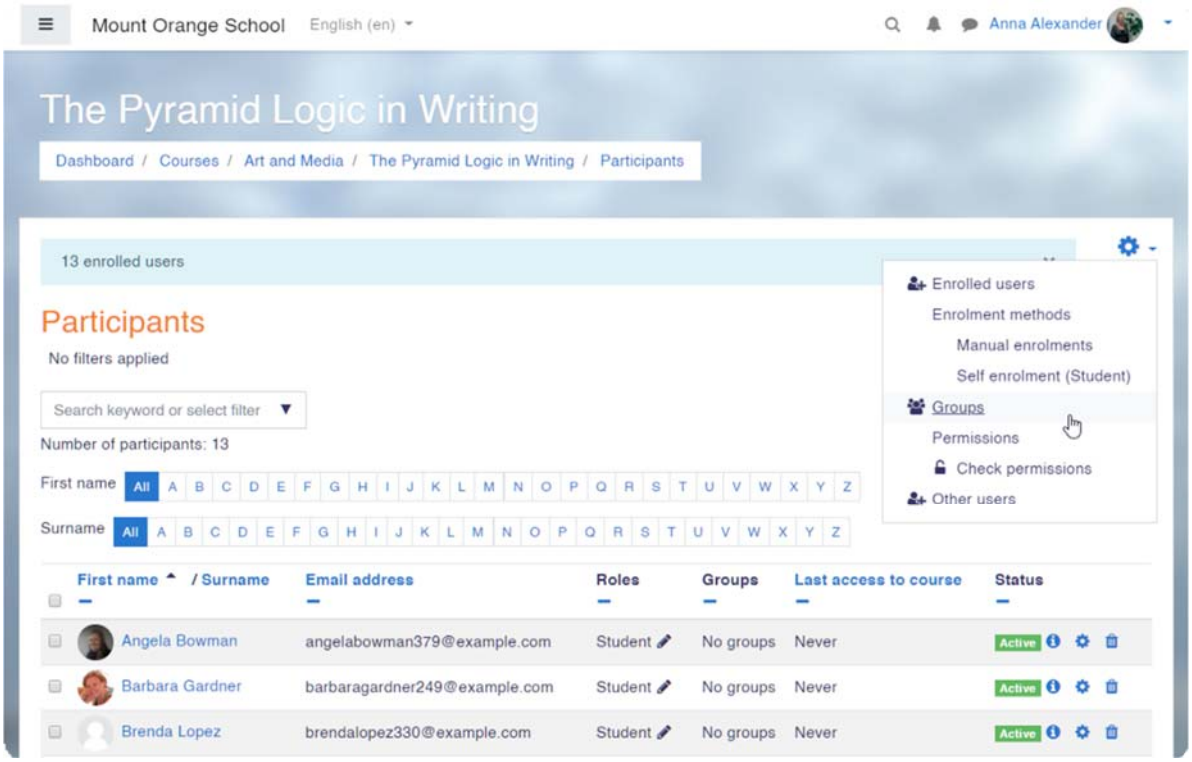
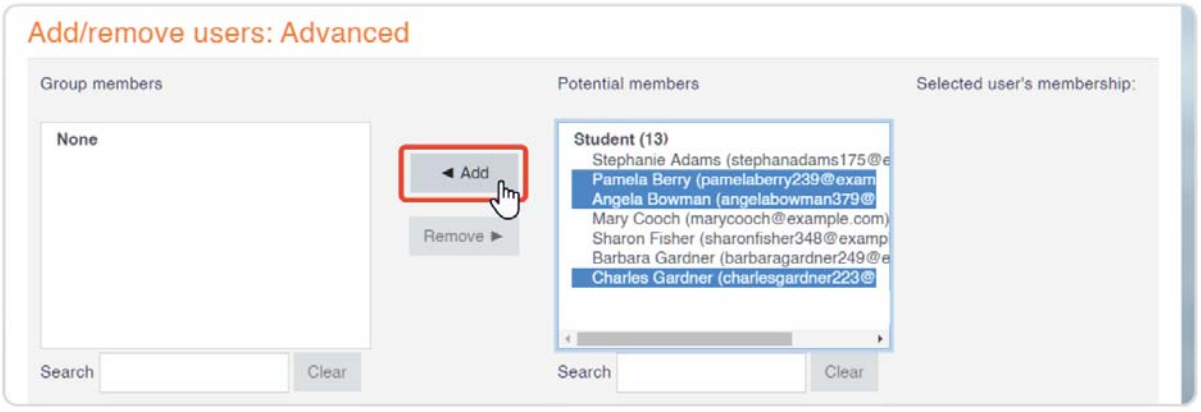


In a new window, scroll down the page and click **Create group**. After that, name the group, set a picture, and enable group messaging if you like, and click **Save changes**.

Again, in a new window, select the group from the list and click **Add/remove users** from the right. You'll see the list of users enrolled in the course; select those who you'd like to add to the group and click **Add** in the middle.



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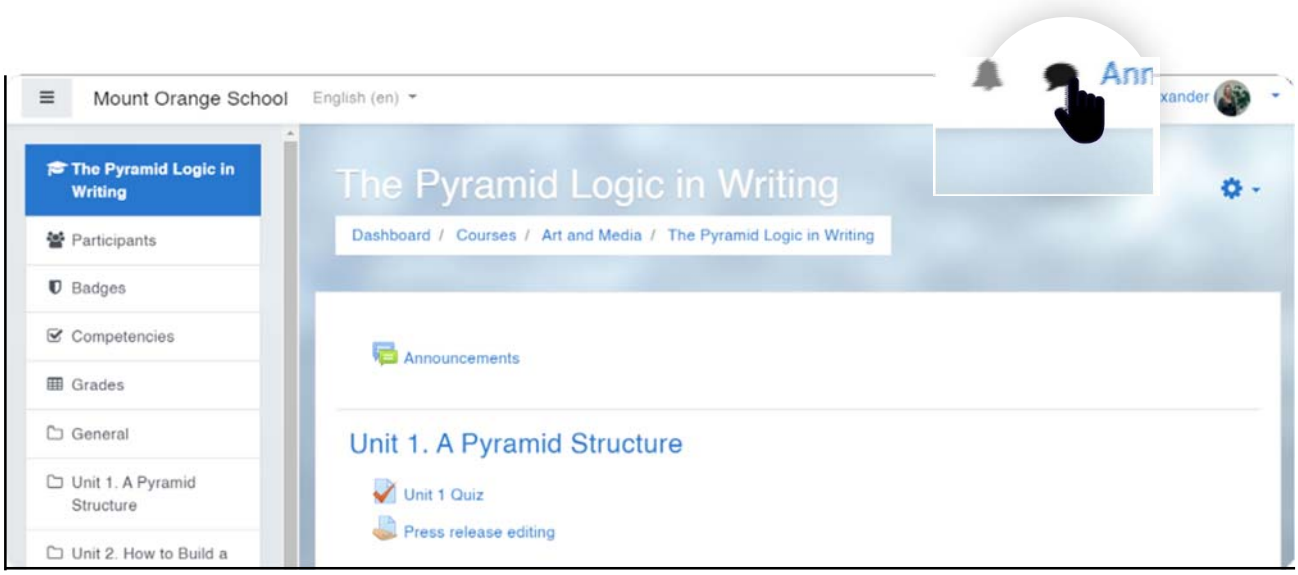
HOW TO MESSAGE STUDENTS

In Moodle, you can communicate with your learners and colleagues, just like in WhatsApp. In the upper ribbon, there's a bubble icon that opens the list of your contacts.



You can send private messages to users as well as group messages, which is a very convenient feature when you need to quickly discuss something, inform, or share an insight.

HOW TO SET UP A GRADEBOOK

A gradebook is a Moodle feature that helps you collect scores for graded activities from your course. With its help, you can collect and view marks and manually enter grades for offline activities.

To set up a gradebook for a course, click on the gear icon in the upper right and select **Gradebook setup**. On a new page, you'll see the full list of graded items for the course.

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For each item, there's a Weights column. The bigger the number, the more important the grade for performing this task (more on that in a minute).

For now, let's make gradebook items look more organized and divide activities into categories. Scroll down the page and click **Add category**. In the demo course we use, there are three types of graded items, so we can create three categories for them:

- Assignment
- Quiz
- Simulation

In your course, you can create any number of graded item types and as many categories as you need. After clicking **Add category**, give each created category a name and click **Save changes**.

Now, move the items to their category by clicking the arrow icon on the left of the item's name.

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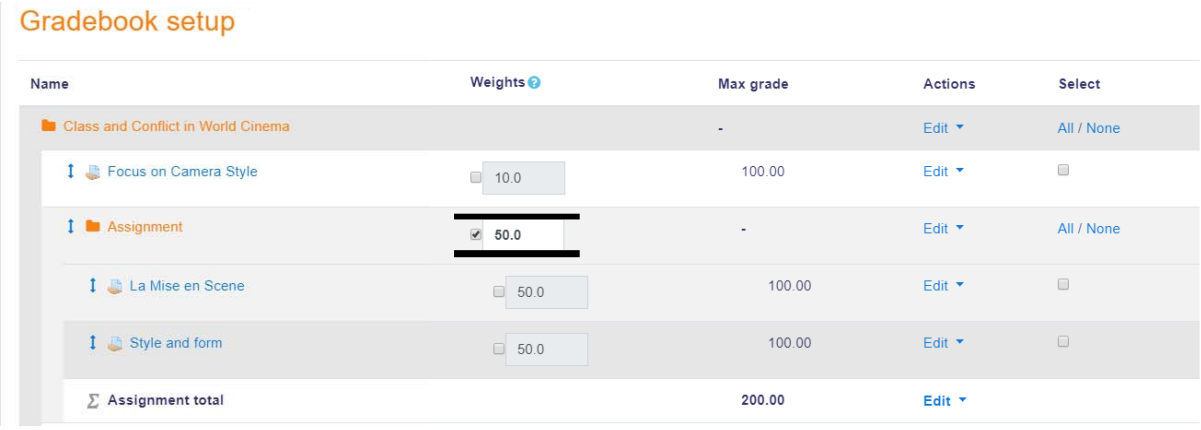
Now, when your items are organized, it's easier to assign the weights to each category. Let's say, we believe Assignment to be the most important category, so we'd like to give it the largest weights. For example, it's 50. We tick a checkbox for Assignment and enter 50.

All the other weights are automatically adjusted, so the sum is 100, but you can define weights for the rest of the categories too - in our example, we put 30 and 20 for Quiz and Simulation correspondingly.

If you like, you can also manually define weights for each item within a category.



When everything is ready, click **Save changes** in the left bottom.

HOW TO GRADE LEARNERS' ASSIGNMENTS

To grade assignments, you need to choose the one you'd like to begin with. You can do this in several ways, but let's go the most direct way and choose **Grades** in the left menu and then find an activity you'd like to grade in the row and click on it.

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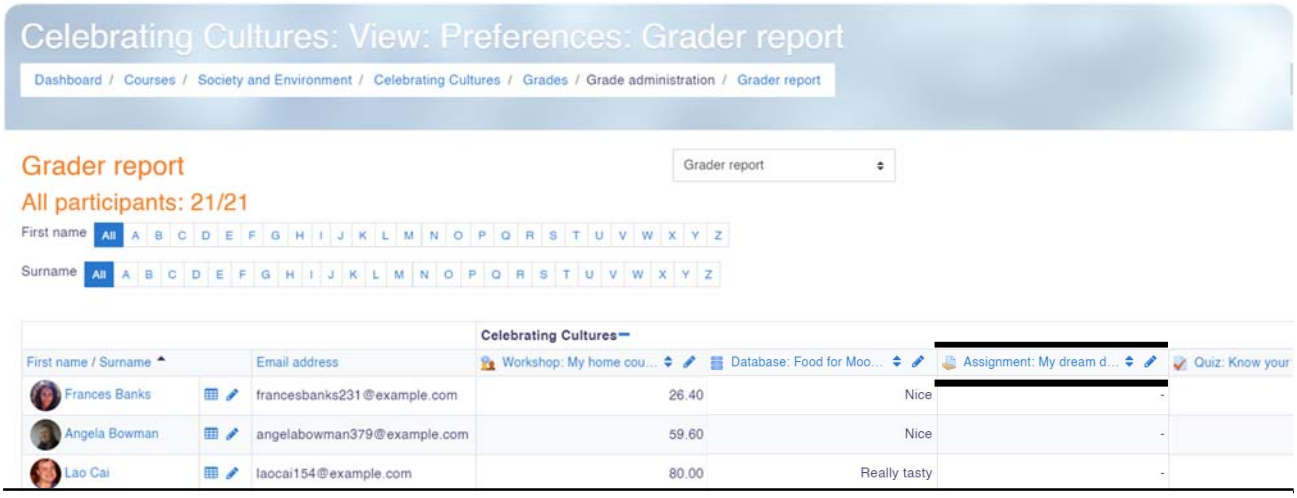
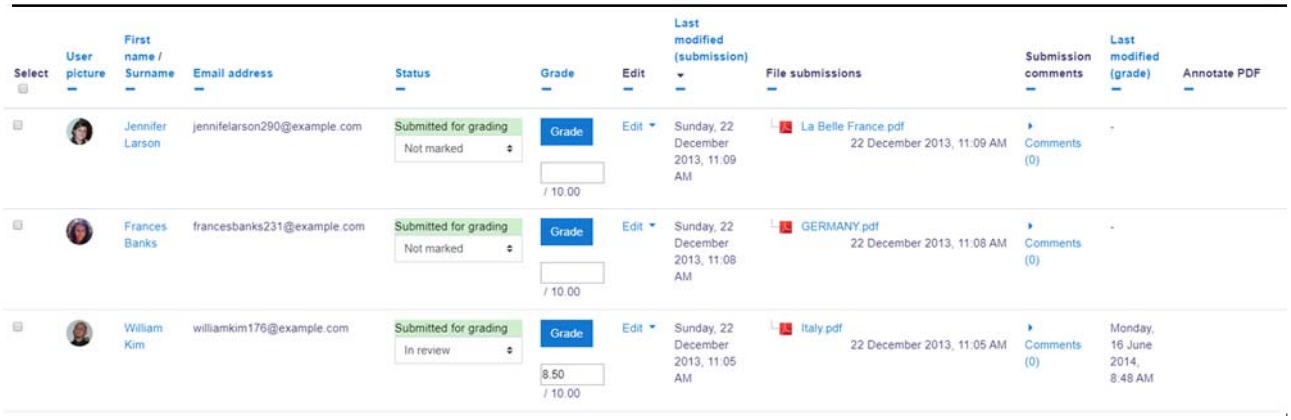


You'll get in the Grading summary page with two options: View all submissions or Grade.

Click **View all submissions**, to begin with. After doing so, you'll see the list of all enrolled users and their submissions (or lack thereof). For more convenience, you can assign statuses, so it's always clear for you which work still needs marking or review.



Click **Grade** if you're ready to begin reviewing some students' assignments.

The gradebook's interface allows you to leave annotations, text comments, mark with colors, and put various stamps as feedback. **Enter the grade** for the student's submission in the right panel, change the status, and then click **Save changes** to quit or **Save and show next** to proceed.

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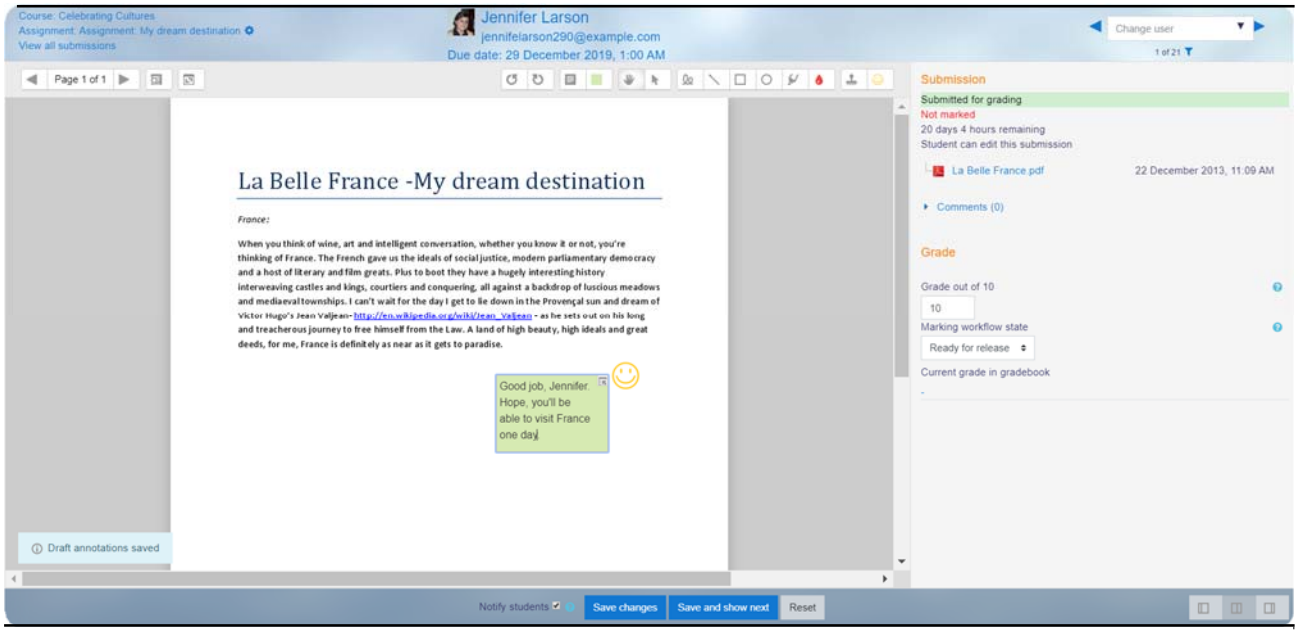

4. SUMMARY OF LEARNING CONTENT

This course has been developed in the form of a number of micro-learning units, enabling Public Authority staff to choose and complete their own training plan suited to their ambition level and need.

Green Public Procurement for Local Authorities in Construction

Description	Target
	Public and contracting authorities Procurement professionals of construction works

TRAINING AIM

The aim of the programme is to increase the learners' knowledge of principles and practices applied to the Green Public Procurement process in construction for Local Authority Staff. This improved knowledge will allow such staff members to apply their existing skills, so that relevant GPP techniques, methods and standards are achieved.

PROGRAMME OBJECTIVES

ACTIVITY STATEMENT

On completion of the training programme learners will be able to:

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1 List and describe the key policy and legislative drivers, relevant to GPP in construction
2 Explain the key terms and principles associated with GPP in construction
3 Understand what GPP is and how it fits into current National and European policy and law
4 Obtain an understanding of the main criteria and legal contract clauses of GPP
5 Obtain an understanding with the main tools and techniques for circular economy and GPP (EU Level(s), LCA, etc)
6 Obtain an understanding with the main tools for life cycle costing and GPP (LCC etc)
7 Identify areas of specific relevance to your organisation as a local authority
8 Plan a strategic approach to implement GPP for construction effectively

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Figure 1 below gives a breakdown of each Learning Unit and the topics covered.

Induction	
1. GUPP Introduction	Introduction of GUPP
2. GPP Drivers - An Overview	Introduction to GPP Benefits of GPP
3. Adoption of GPP	Building the Framework for GPP
4. Circular Economy and GPP	What is Circular Economy?
5. Legal Aspects of GPP	EU Directives and Treaty Principles
6. Needs Assessment and Market Engagement	Needs Assessment
7. Awarding Criteria	Specifications and Selection Criteria
8. EU Levels	Introduction to EU Levels
9. Life Cycle Assessment	Introduction to LCA Business Case
10. Life Cycle Costing	Introduction to LCC
11. GPP and BIM	Collaborative BIM
12. Verification	Evaluate and Verify

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5. COURSE OVERVIEW

The full set of learning units are delivered over 40 hours of structured and self-directed learning (much of which can be drawn from case studies) as a blended or online delivery.

Each micro-learning unit is 1-4 hours in duration. This ensures flexibility on how the course is delivered. These units can be completed as follows:

Type of delivery	Delivery of units	Timeframe
Full time (blended or online)	In 2-3 sessions	2-3 weeks
Part time (blended or online)	In 3-6 sessions	3-6 weeks
Part Time (online)	In 6 sessions	unlimited

Number of Hours ÷	Total: 40 hours – 14-16 hrs contact and 24-26 hrs self-independent study÷
Type of discipline ÷	e-learning tools, facilities for practical demonstration and training, and assessment/examination procedures ÷
Preliminary requirements ÷	The learners are expected to have some general knowledge on public procurement in the building and construction field. ÷
Assessment procedure ÷	Continuous Assessment ÷
Delivery ÷	Part-Time OR Full Time ÷ Blended and/or Face to face/in house /Online÷
Technical secure (hardware and software) ÷	White board; ÷ Multimedia facility; ÷ Access to relevant digital tools; ÷ Practical training models; ÷ Demonstration videos. ÷
Lectures ÷	Online facility ÷ Classroom facility ÷ Expert guest speakers ÷
Resources ÷	e-learning platform (Moodle)÷ Induction pack: structure of programme, registration information, introduction to programme, helpdesk details and forum) ÷ Learning resources: reading resources, videos, materials, etc ÷

Independent self-study resources are introduced through quizzes. Some group activities such as discussions or demonstrations can be used in all the topics. Trainers will find additional information for those discussions and demonstrations to provide guidance. Learners can discuss their assignments with trainers and other learners using discussion forums created in Moodle platform or during in class lectures. Any assignments should be handed in using the Moodle system for assessment before the deadline set by the trainer. Learners have the possibility to upload their solution files for each of the

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respective tasks, while trainers have the possibility to grade their work also directly in the Moodle system.

It is expected that all learners are to carry out self-directed learning, utilizing the reading and video resources before attending class - this is known as a flipped classroom approach. Each trainer is to encourage their learners to come prepared for the training which will enable higher discussion of the topics and interaction between all learners. A discussion forum is also set up in Moodle to enable trainers and learners to interact outside of class, as well as encourage additional discussion between learners. It is anticipated that trainers will post a comment for discussion regularly to advance participation from learners.

Continuous assessment is evaluated through a number of activities, such as individual online quizzes or online/face to face practical demonstration assignments and group collaboration and practical activities.

The online learning-units will include access to PowerPoints with downloadable pdfs, videos and additional reading resources to complement the relevant learning content. Online gamification quizzes will be provided in the form of multiple-choice questions or short answer responses. Assessment will be carried out automatically online.

The blended (mixture of online and face-to-face/in-class) learning-units will include access to PowerPoints with downloadable pdfs, videos and additional reading resources. It is expected that learners become familiar with the content before class, where the trainer is to encourage group discussion and completion of interactive activities. Demonstration and tutorial videos will be used to support the learner's experience. All assignments will be uploaded onto Moodle within a time limit, where they are to be assessed and graded by the trainer.

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It is important that trainers ensure that the following learning outcomes for each Learning Unit is addressed relevant to the specific topic.

SEQUENCE NUMBER	LEARNING UNIT TITLE	DURATION IN HOURS		
1	**Induction**	**THEORY**	**PRACTICAL**	**TOTAL**
	Introduction to the Course	**1.00**	**0.00**	**1.00**

LEARNING UNIT AIM

To equip the learner with the knowledge necessary to state the planned outcomes and the conditions attached to the attendance on the course; apply good health & safety and hygiene practices; understand the rules of the centre and explain the meaning of equal opportunities.

Objectives/Learning Outcomes

1. Outline the aim and objectives of the Green Public Procurement training programme.
2. Outline the indicative programme, timeframe, use of different learning methods and tools, and the delivery mode used for the training
3. Confirm the type of credits/badges available, accepted for continuous development.
4. Get to know fellow learners and trainer.
5. Confirm the roles, responsibilities and functions of the training provider. (housekeeping)
6. State the supports available for the learners (Access to e-learning platform, online and other resources, etc)
7. Complete the feedback surveys to assist with improvements of the programme

Competences/Responsibilities

Conform to the rules and regulations of the training centre.
Observe safe practices in the workplace (H&S), maintain a high standard of personal hygiene.
Listen to others with respect
Accept responsibility for individual independent learning
Accept professional ethical standards
Demonstrate a willingness to present personal views and participate in group/class discussions
Show sensitivity towards individual differences and opinions.

SEQUENCE NUMBER	LEARNING UNIT TITLE	DURATION IN HOURS		
2	**GPP and Drivers: An Overview**	**THEORY**	**PRACTICAL**	**TOTAL**
	Introduction to GPP The benefits of GPP Environmental Standards EU Policies and Environmenta Legislation National Policies and Environmental Legislation	**2.50**	**0.00**	**2.50**

LEARNING UNIT AIM

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To present an overview of the strategic role of GPP for public authorities and equip the learner with the relevant knowledge necessary to outline the principles and demonstrate the purpose of green public procurement, as a tool for addressing different policy objectives and the benefits with specific reference to construction.

Objectives/Learning Outcomes

1. Outline the principles and benefits of GPP for construction
2. Outline how GPP is relevant to current national and EU policies and drivers
3. Identify and describe the importance of standards in GPP for local authorities

Competences/Responsibilities

Identify and outline the principles of GPP relevant to construction
Identify and outline the EU policies and drivers relevant to GPP.
Identify and outline the National policies and drivers relevant to GPP.
Outline how to stay up to date with National and EU policies relevant to GPP
Outline the importance of standards for GPP
Demonstrate responsibility for evaluating and following best practices.

Specific Competences/Responsibilities

Identify and describe the up-to-date EU and National policies and drivers relevant to GPP for construction, meeting environmental policy objectives
Discuss in detail the importance of GPP as a tool to tackle climate change
Identify the key benefits for successful GPP
Outline how GPP has economic benefits in the long term
Display an understanding of the importance of GPP as a powerful market force.

SEQUENCE NUMBER	LEARNING UNIT TITLE	DURATION IN HOURS		
3	**Adoption of GPP** Building the framework for GPP Framework: Scope and Targets Monitoring GPP	**THEORY** **3.00**	**PRACTICAL** **0.50**	**TOTAL** **3.50**

LEARNING UNIT AIM

To equip the learner with the relevant knowledge necessary to provide guidance on how GPP should be implemented and managed within a public administration. This Learning Unit is to outline the basic steps required when using GPP, explain target setting establishing a GPP strategy, and the importance of monitoring, reviewing and reporting. Emphasis is placed on the importance of pre-procurement planning and post procurement monitoring stages for successful green procurement.

Objectives/Learning Outcomes

1. Outline the principles and benefits of implementing GPP within an organization.
2. Explain why a procurement strategy is important and define the steps for GPP in construction
3. Outline why the pre and post contract phases are important for successful GPP.
4. Outline the importance of monitoring and reporting in GPP practice.

Competences/Responsibilities

Outline the steps which are required to put a GPP implementation strategy in place.

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Explain why GPP implementation is beneficial for an organisation
Identify best practice of GPP implementation in construction.
Identify and define the steps in developing and implementing a GPP strategy.
Identify the different levels of GPP policy (general commitment, commitment within related policy, comprehensive GPP policy)
Outline the importance of setting a scope and targets for successful GPP, and the steps to do this.
Outline what should be considered when developing a GPP action plan and strategy (actions, communication, monitoring, reviewing)
Outline the steps in setting up a monitoring and reporting system for GPP in construction
Discuss a case for implementing GPP within an organisation
Identify where to go for further information on GPP
Apply critical and problem solving skills
Demonstrate the ability to collaborate in a team and transfer information effectively
Demonstrate responsibility for evaluating and following best practices.

Specific Competences/Responsibilities

Propose how you would gather support for GPP within an organisation
Discuss the different levels of GPP policy that exist within organisations
Devise a strategy for implementing GPP within an organisation, from setting scope and targets through to monitoring and reporting
Demonstrate a recognition of the importance and benefits of having a procurement strategy within an organization
Demonstrate competency in developing a strategy for implementing GPP within an organization

SEQUENCE NUMBER	LEARNING UNIT TITLE	DURATION IN HOURS		
4	**Circular Economy and GPP** What is Circular Economy Circular Economy: A Closer Look Circular Procurement	THEORY **3.50**	PRACTICAL **0.50**	TOTAL **4.00**

LEARNING UNIT AIM

To equip the learner with the relevant knowledge required to understand what circular economy is, and the benefits at an EU and national level. The role of procurement to support a circular economy, and practical guidance in using GPP to support the transition towards a circular economy for the construction sector.

Objectives/Learning Outcomes

1. Describe the key policy and legislative drivers, relevant to circular economy and sustainable construction
2. Introduce a range of specific actions and targets to achieve a transition to circular economy
3. Identify who should to be involved in the circular procurement process and their roles
4. Outline the ways that GPP can support the circular economy in construction

Competences/Responsibilities

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Explain the key principles and drivers behind the transition to a sustainable circular economy at EU and National level
Define circular economy (European commission definition)
Outline the principles of circular economy for buildings
Outline the importance of circular economy for local authorities in construction for local authorities
Outline circular business models for Local Authorities in construction
Outline circular economy strategies for all phases of construction for a building
Define circular procurement
Discuss the benefits of a circular economy and how GPP can support it
Discuss the opportunities for circular procurement throughout the procurement cycle
Outline the steps involved in a circular procurement process
Outline the impact public procurement can have on delivering the circular economy
Outline the principles of certification and EPDs
Demonstrate the importance of collaboration and engaging stakeholders for circular procurement
Identify circular opportunities from procurement case studies
Demonstrate responsibility for evaluating and following best practices.

Specific Competences/Responsibilities

Outline the benefits of a circular economy on an environmental, social and economic level.
Specify the opportunities for circular procurement in construction
Determine high potential product groups relevant to construction for circular procurement
Explain ownership model vs usership model for circular economy
Compare key environmental impacts with a GPP approach in construction
Define the energy resource efficiency in construction
Demonstrate the appropriate selection of materials and products for GPP
Demonstrate the understanding of the requirements for certification and EPDs in GPP in construction
List the factors to take into account when identifying high-potential product groups in construction for circular construction
Demonstrate competency in identifying opportunities for circular procurement

SEQUENCE NUMBER	LEARNING UNIT TITLE	DURATION IN HOURS		
5	**Legal Aspects of GPP**	**THEORY**	**PRACTICAL**	**TOTAL**
	EU Directives and Treaty Principles Types of Procedure Legal Exclusions	**2.50**	**0.50**	**3.00**

LEARNING UNIT AIM

To equip the learner with the relevant knowledge required to understand the legal framework for GPP, according to the Procurement Directives, the different types of procedures which are available as well as the rules around exclusion.

Objectives/Learning Outcomes

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1. Outline how GPP is governed (EU procurement directives, Treaty principles, case law, national legislation)
2. Outline the different types of procedures in which GPP can be applied.
3. Explain the rules under the 2014 directive for exclusion and selection, technical specifications, award criteria, contract performance at national level

Competences/Responsibilities

Explain the terms and definitions relevant to the legal aspects of GPP
Outline the relevant sources of law for GPP
Outline the provisions which were introduced for GPP to address environmental considerations under the 2014 procurement directives
Outline the different types of procedure which are available under the EU directives,
Explain why the choice of procedure is important.
Discuss the importance of choosing the most appropriate procedure for GPP
Explain the benefits of flexible procedures
List what must be considered in contract performance clauses for GPP, and how they can be enforced.
Demonstrate an understanding of the legal requirements when implementing GPP
Demonstrate responsibility for evaluating and following best practices.

Specific Competences/Responsibilities

List and explain the various aspects of the EU Treaty principles (transparency, proportionality, mutual recognition) which must be adhered to when implementing GPP.
List and explain the 2 type of technical specifications (performance based/functional or specification based on standards)
Explain the benefits of flexible procedures
Explain the difference between specifications vs award criteria, and give examples relevant to construction
List and outline the legal considerations that can be taken into account at selection stage relevant to GPP
Outline what legal conditions must be considered for weighting and scoring award criteria
Outline the legal requirements related to Life Cycle Costing (LCC)
Outline the legal context for market engagement
Outline the legal requirements that exist around verification under the 2014 directives
Outline the mandatory and discretionary grounds for excluding bidders
Explain minimum requirements and variants, and outline how variants are used.
Identify titles and descriptions of contracts which explicitly include environmental aspects
Identify criteria that do or do not meet requirements for using labels

SEQUENCE NUMBER	LEARNING UNIT TITLE	DURATION IN HOURS		
		THEORY	PRACTICAL	TOTAL
6	**Needs Assessment and Market Engagement** Needs Assessment Market Engagement	**3.00**	**0.50**	**3.50**

LEARNING UNIT AIM

To equip the learner with the relevant knowledge required to understand the importance of needs assessment and market engagement for successful GPP, presenting real examples from

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public authorities and recommended techniques. Practical steps for how to carry out needs assessment and market engagement will be explained.

Objectives/Learning Outcomes

1. Outline the steps you need to take prior to including GPP criteria in a tender.
2. Identify pre-procurement techniques and how to run them effectively for GPP.
3. Outline the risks and benefits involved in GPP.

Competences/Responsibilities

Explain needs assessment and the reasons why it is important
List and explain the steps involved in needs assessment
Explain a needs statement and the reasons why it is useful.
Outline the benefits of joint procurement
Explain market engagement and why it is of use
List the risks and benefits of market engagement, and how to manage risk
Outline the steps in planning market engagement for GPP (including market analysis)
Assess the need for new constructions or major renovation
Demonstrate responsibility for evaluating and following best practices.

Specific Competences/Responsibilities

List and explain the techniques used for needs assessment (observation, user discussions, user survey, review and planning, demonstrations)
Explain why estimating volume/value is important and why it is important to buy flexibly.
Give some examples of how needs assessment can be used in GPP tenders for construction.
Identify who would be involved in a user consultation for various types of construction projects
Outline how the subject matter of the contract is defined, and what it includes.
Explain what performance/output based specifications are, using an example.
Suggest an example of how needs assessment may inform the scope of a contract in construction

SEQUENCE NUMBER	LEARNING UNIT TITLE	DURATION IN HOURS		
7	**Awarding Criteria** Specifications and Selection Criteria Award Criteria with Contract Clauses	THEORY 3.00	PRACTICAL 1.00	TOTAL 4.00

LEARNING UNIT AIM

To equip the learner with the relevant knowledge required to understand how to implement GPP at each stage of the procurement process and outline the type of criteria which can be applied at each stage, relevant to construction.

Objectives/Learning Outcomes

1. Outline the role of specifications, selection and award criteria and contract clauses in GPP.
2. Demonstrate the understanding of the key National GPP criteria for the construction sector.
3. Identify and prepare strategies for combining and weighting criteria.

Competences/Responsibilities

Explain what can be included in the selection criteria
List the discretionary exclusion grounds relevant to GPP

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Outline what should be included in technical specifications, and why it is important to set the right ambition level
Explain what can be included in award criteria
Explain why award criteria is particularly important for GPP in construction
Demonstrate responsibility for evaluating and following best practices.

Specific Competences/Responsibilities

Describe the differences between core and comprehensive criteria
Identify examples of GPP criteria that can be used in construction (selection criteria, technical specifications, award criteria, contract clauses
Identify some strategies that can be used for contract performance clauses

SEQUENCE NUMBER	LEARNING UNIT TITLE	DURATION IN HOURS		
8	EU Level(s)	THEORY	PRACTICAL	TOTAL
	Introduction to EU Levels Setting up a project	2.00	1.50	3.50

LEARNING UNIT AIM

To equip the learner with the basic knowledge required to understand the importance of the EU Level(s) for assessing and reporting on the sustainability performance of all stages of the building project for local authorities

Objectives/Learning Outcomes

1. Identify and outline why Level(s) should be applied into National GPP at each stage of the building project
2. Identify and outline how the use of Level(s) in GPP can benefit public authorities
3. Understand the 6 Level(s) macro-objectives and the indicators that support each one
4. Understand why and how the objectives (and therefore indicators) are included from the beginning of a project

Competences/Responsibilities

Outline the macro objectives in the Level(s) common framework
Define which sustainability macro-objectives the project will address
Outline how indicators support each other in the building project
Outline the benefits of using level(s) for Local Authorities
Outline the different user groups for local authorities, professionals and construction contractors
Define the roles and responsibilities of key players in the local authority
Establish to which 'level' project performance assessed for the building project
Decide which objectives (and therefore indicators) will be included from the beginning of a project
Outline the functionality of the Level(s) calculator tool for local authorities as a case study

Specific Competences/Responsibilities

Define relevant objectives at each stage of the building process
Assess performance at each stage of the building process
Identify and describe the indicators relevant to each objective

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Apply indicators to each stage of the building process
Apply indicators to each stage of the building life cycle
Identify which indicators are used to assess performance against,
Plan what resources will be needed to assess performance and when in the project life cycle
Demonstrate the use of the Level(s) calculator tool over the life cycle of a building project case study

SEQUENCE NUMBER	LEARNING UNIT TITLE	DURATION IN HOURS		
9	**Life Cycle Assessment**	**THEORY**	**PRACTICAL**	**TOTAL**
	Introduction to LCA Business Case Performing Building LCA	**2.00**	**2.00**	**4.00**

LEARNING UNIT AIM

To equip the learner with the basic knowledge required to understand the importance of the Life Cycle Assessment (LCA) and the tools and software to support LCA for assessing and reporting on the sustainability performance of all stages of the building project for local authorities

Objectives/Learning Outcomes

1. Outline the importance of taking a Whole Life Carbon approach for local authorities
2. Outline the principles and benefits of LCA for local authorities in construction
3. Outline the role of LCA in GPP and the rules that apply under procurement law.
4. Identify the methodology for LCA and how to apply them in construction projects
5. Demonstrate the estimation of environmental savings.

Competences/Responsibilities

Define the principles of LCA
Explain the terms and definitions associated with LCA
Identify key impacts of LCA for local authorities in the field of construction
List the building life cycle stages and their impacts
Outline the steps involved in LCA to support life cycle assessment in a construction project
Explain the purpose of an impact assessment and the tools that are available to support this
Outline how LCA data can be used in a construction project
Outline the relationship between product LCA data and building LCA data
Outline the principles and importance of Environmental Product Declarations (EPDs)
Outline the roles and responsibilities of various stakeholders in decarbonising the built environment (e.g., designers, builders and product manufacturers)

Specific Competences/Responsibilities

Explain why it is important to take a whole-life approach to calculating environmental impact
Explain the increasing importance of building LCA within the global construction industry
Explain the different types of LCA calculation in different project stages, and how they are measured
Define the Goal and Scope of a LCA case study (ISO 14041)
Outline how to make a model of the product life cycle, referred as Inventory analysis
Identify the environmental relevance of Life Cycle Impact Assessment (ISO 14042)

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Demonstrate the purpose of an impact assessment and the supporting tools
Outline how to interpret the LCA study (ISO 14043)
Identify and outline the applications of LCA for local authorities relevant to a construction project
Outline when EPDs should be used
Identify and demonstrate how to use EPD national databases
Outline how LCA and Level(s) assist in the transition towards a circular economy

SEQUENCE NUMBER	LEARNING UNIT TITLE	DURATION IN HOURS		
10	**Life Cycle Costing**	**THEORY**	**PRACTICAL**	**TOTAL**
	Introduction to LCC LCC Tools	**2.00**	**1.50**	**3.50**

LEARNING UNIT AIM

To equip the learner with the basic knowledge required to understand the importance of Life Cycle Costs (LCC) analysis. The software and tools for calculating LCC will be outlined so that local authorities can consider not just the up-front purchase costs of a given solution, but its total economic and environmental cost from cradle to cradle for the building project.

Objectives/Learning Outcomes

1. Outline the role of LCC in GPP and the rules that apply under procurement law.
2. Identify tools, techniques and databases for LCC and how to apply them.
3. Outline the general principles of Economic Appraisal.
4. Demonstrate the estimation of financial and environmental savings.

Competences/Responsibilities

Outline the role of LCC in green public procurement
Outline the principles of LCC and when it can be applied
Identify and list the tools that are available for LCC nationally and at EU level
Identify and outline LCC standards and databases at EU and National level
Outline the use of LCC at award criteria during the tendering process.
Demonstrate how LCC can be included in award criteria using a case study
Identify the Sector Applications of Economic Appraisal.
Discuss LCC versus Value for Money
Outline the principles of the level of Economic Appraisal and Value for Money evaluation ("Economic Appraisal 2021 - 2027 Vademecum).

Specific Competences/Responsibilities

Identify types of good/services which allows the environmental costs of purchases to be evaluated
Outline relevance of Directive 2014/24/EU to award contracts.
Identify and outline the LCC method to be applied from tenderers in the procurement documents.
Identify the data criteria required using the LCC methods (objectively verifiable, non-discriminatory, accessible, data can be required with reasonable effort, transparency)
Demonstrate how LCC can be applied at pre procurement (cost estimation) stage, during tender evaluation and as part of contract monitoring

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Identify the costs over the life cycle of a product, service and work.
Demonstrate how LCC can evaluate the total cost or real cost of goods, services and works for project cost estimation and during the offer evaluation stages.
Demonstrate how LCC can evaluate the total cost or real cost of goods, services and works as part of contract monitoring.

SEQUENCE NUMBER	LEARNING UNIT TITLE	DURATION IN HOURS		
		THEORY	PRACTICAL	TOTAL
11	**GPP and BIM** Collaborative BIM BIM and Procurement BIM for Tenders	2.00	2.00	4.00

LEARNING UNIT AIM

To equip the learner with the basic knowledge required to understand the role of BIM use as a prerequisite for participation in public tenders and how to implement criteria around BIM use for successful GPP.

Objectives/Learning Outcomes

1. Outline the key drivers behind digitalization relevant to construction
2. Outline how BIM can support the Project Procurement construction process through collaboration and management for local authorities
3. Outline how BIM and LCA can be integrated in the decision-making process at an early stage to support GPP.
4. Explain the various ways that BIM can be specified in a tender

Competences/Responsibilities

Outline the types of initiatives at national and EU level to incentivize the use of digital technologies in the construction sector
Explain what BIM is and who it involves
Outline the principles and benefits of BIM for sustainable performance assessment
Identify and outline the benefits of BIM for construction by local authorities
Outline the design principles for a BIM suitable for LCA automation using the “oneclick” tool
Cognitive and practical skills to perform tasks related to the process of designing a sustainable building.
Demonstrate responsibility for evaluating and following best practices.

Specific Competences/Responsibilities

Identify the BIM Project Collaboration requirements based on the Project Performance Requirements (BIM Uses), and Project Roles and Responsibilities – Contractual Hierarchy.
Identify and select the Project Procurement Model requirements in the form of the Delivery Model (Contract) and Procurement Strategy.
Demonstrate using a case study how to set up LCA automation with a model and LCA checker
Apply clear and consistent material labelling using BIM and a basic LCA calculation
Apply layered elements for multi-material objects
Export a model and check the elements are classified IFC
Apply analytical capacity.

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SEQUENCE NUMBER	LEARNING UNIT TITLE	DURATION IN HOURS		
12	Verification	THEORY	PRACTICAL	TOTAL
	Evaluate and Verify Monitoring and Reporting	1.50	2.00	3.50

LEARNING UNIT AIM

To equip the learner with the relevant knowledge required to understand how to verify claims made by bidders in response to GPP criteria, what types of evidence to ask for, the role of environmental management systems, standards and labels (Including ecolabels and other forms of third-party certification) and how to measure the impact of GPP.

Objectives/Learning Outcomes

1. Outline the verification methods that claims can be made by bidders in the response to GPP criteria
2. Outline the role of environmental management systems, labels, certifications, and test reports.
3. Outline how to evaluate equivalent evidence and when you can accept a self-declaration.

Competences/Responsibilities

Outline the reasons why we need to verify in GPP
Explain greenwash and the different types of greenwash that exist
List and explain the different types of verification.
Explain the rules around verification under the treaty principles.
Outline the benefits and requirements of using labels in tenders
Explain the principles and benefits of an environmental management system for GPP
Outline best practice around verification during contract performance
Demonstrate responsibility for evaluating and following best practices.

Specific Competences/Responsibilities

Identify and outline an example of verification provision in the construction sector.
Explain what is meant by equivalence
Explain the process of accepting equivalent labels/self-declarations
Identify and list examples of environmental labels that can be used for GPP in construction
List and explain the rules on referring to labels
Outline the dos and don'ts of using labels

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Course Approach

The course is planned as a sequence of short theoretical explanations of concepts followed by a set of activities and discussions for application of theoretical knowledge. This will enhance the fast application of theoretical into practical and to consolidate the knowledge.

MAIN COURSEWARE

Resources developed for all the topics.

For learners

- Course notes: pdf file
- Short Activities (in class): between explanations, part of the pdf file
- Practical Activities to develop on their own (out of class): Exercises, files and different type of material needed.
- Videos – created by GUPP project and online free resources.
- International bibliography
- External links.

For trainers

- Slides and presentations: PPT with comments and guidelines.
- Instructions for practical exercises
- A checklist table (spreadsheet) defining the different points to be evaluated and the different indicators to score.
- Instructions to facilitate grading and correction activities will be developed. Different type of files (PDF, WORD, EXCEL, etc.).

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6. ASSESSMENT SCHEDULE

The learning will be continuously assessed with relevance to the learning outcomes/objectives, and these will be evaluated as follows:

Theoretical:

- A series of online quizzes relevant to each Learning Unit.

Practical:

- Uploading of assignments displaying application of learned concepts/digital tools.

The following table gives an overview of an indicative assessment schedule. There are marks allocated for online quiz, group work and individual exercises.

Indicative Assessment Schedule

Learning Unit	*Description/Type*	*% of Total*	*Timing of Assessment*
	Pre survey questionnaire	2.5	Before Course
Induction	Assessment 1 – Discussion Forum	5	During Course
Adoption of GPP	Assessment 2 – GPP Strategy	5	During LU 3
Circular Economy and GPP	Assessment 3 – Quiz on 1, 2, 3, 4 Learning units	15	End of LU 4
Needs Assessment and Market Engagement	Assessment 4 – Group presentation	10	During LU 6
Awarding Criteria	Assessment 5 – Quiz on 5, 6, 7 Learning Units	15	End of LU 7
Life Cycle Assessment	Assessment 6 – Quiz on 8, 9 Learning Units	10	End of LU 9
GPP and BIM	Assessment 7 – Individual/Pair Activity	15	During LU 11
Verification	Assessment 8 – Quiz on 10, 11, 12 Learning Units	20	End Learning Unit 12
GUPP Close	Post survey questionnaire	2.5	Completion of Course
		100	

Software Tools

Objective: to promote collaboration tools that enable the development of the LU in a face-to-face and distance format.

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- Microsoft Teams or Slack: for fast communications
  (they can use it for being connected between them)
- Videoconferences: to enable the work communication sessions for development of some group activities.
- Doodle: to arrange meetings in an easier way between team members during the course.
- Quiz tools enhancement (this can provide the teacher feedback to check that what is being taught is understood)
  - Kahoot
  - Google forms
- Use of specialised tools:
  - LCA Tools (OneClick?)
  - LCC Tools

Group Activity Observation Checklist

A similar table to the one illustrated below will be provided in softcopy format so that any trainer can modify to suit the groups and input scores etc. It allows for the trainer to mark group/individual activities, so that each individual/group can be assessed and the contribution each group member provides can also be assessed. A group score is only as good as its weakest member(s) so learners must be encouraged to take part and actively participate.

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Group Activity Observation Checklist

Each individual/group observation is scored on a sliding scale 0 -5. 0 = Lowest , 5 = Highest

	Observation	Group 1				Group 2				Group 3				Group 4				Group 5			
	Student Name	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith	J. Smith
Individual	Makes a valuable contribution to the task	5	2	4	1	2	3	3	2	2	5	4					4		3		
	Uses technical terminology appropriately	4	3	4	1	3	3	3	2	3	5	2					3		3		
	Supports/encourages other members of the group	2	3	5	1	2	2	3	1	3	4	2					4		4		
	Displays appropriate communication skills	3	2	4	1	4	3	4	1	4	5	2					3		3		
	Total individual mark	14	10	17	4	11	11	13	6	12	19	10	0	0	0	0	14	0	13	0	
Group	Technical accuracy of presentation	4				3				5				3				4			
	Evidence of group thinking in final product	3				2				5				3				4			
	Presentation of final product	4				2				4				4				5			
	Group average mark	11				7				14				10				13			

	Learner	Total
Group 1	J. Smith	25
	J. Smith	21
	J. Smith	28
	J. Smith	15
Group 2	J. Smith	18
	J. Smith	18
	J. Smith	20
	J. Smith	13
Group 3	J. Smith	26
	J. Smith	33
	J. Smith	24
	J. Smith	0
Group 4	J. Smith	10
	J. Smith	10
	J. Smith	10
	J. Smith	24
Group 5	J. Smith	13
	J. Smith	26
	J. Smith	13
	J. Smith	13

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Introductions

This section will include the explanation of the house-keeping requirements, the organisation of the roles of the learners and the introductions of the learners to the trainer and each other using an ice breaker approach. Although this is part of section 1.1 it does not form part of the course content, therefore is treated separately.

Overview of Delivery

No more than 45 minutes should be spent explaining fire exits, H & S etc. and 'Introductions'. This allows a buffer for learners attending late or any queries relating to the course. The key objective of this section is to form the groups and for learners to communicate with one another.

House keeping

On-Line:

Before commencing delivery of this course, the following items should be addressed:

1. Review Moodle platform with learners so that they are familiar with the layout and able to Access important information and links.
2. Assessment, assignments and exam requirements should be outlined if appropriate
3. Schedule and timetable should be presented and all learners should understand the hours involved (both on-line and independent study), the schedule of delivery times and deadlines for the homework to be uploaded.

Face to Face/Blended:

Before commencing delivery of this course, the following items should be addressed at all new premises. This will apply to the demonstration/practical day if applicable:

1. Fire exits and assembly points etc. should be outlined.
2. Health and safety requirements should be outlined, including all aspects of guidelines to ensure compliance with COVID 19.
3. Seats and tables should be organised in such a way as to allow for ease of communication and to encourage group participation whilst retaining safe distancing, and no one person is placed in a leading position.
4. At the beginning of each Group Activity the class should be divided into groups, with no more than 3/4 people per group. Each group should ideally have a mixture of skillsets, as being able to learn from and communicate with other professions is favourable to achieve the learning outcomes of the course. As far as possible groups should be made up of people who are not already well known to each other.
5. Ideally (and if applicable), a **coloured sticker** should be distributed to individuals to distinguish the various professions, organisation or skillsets.

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Pre- and Post-survey questionnaire

The pre-survey questionnaire is completed by learners at the induction of this course. Learners will not be able to continue in Moodle unless the pre-survey is complete.

On completion of the course a post-survey questionnaire must be completed. There is 5% available for completing these tasks. These surveys must be completed online at the beginning and end of the course to officially complete the course and receive a badge/certificate of completion. The link to the post survey will be available at the end of the course and the importance of completing this survey should be emphasised.

Sign-in sheet:

On-Line

Automatic signing in, is recorded at each session.

Face to Face/Blended/Online:

An online sign-in sheet must be completed by the learners at the start of, or during each Learning Unit. This course requires 100% attendance before a certificate or a statement of results will be issued, unless there are unmitigated circumstances.

Preparing Learners for Group Work

1. As part of the introductions, an icebreaker is used as described in the next sections.
2. The trainer should make sure everyone is clear in relation to the activities. If required, the group leader should be encouraged to obtain clarification.
3. It should be made clear at the very start that the presentations, whether on whiteboard/flipchart or poster, will be photographed and may be used for assessment purposes.

The Group Leader:

The outline of the role of the group leader should be shared with all learners, if applicable

- This should be completed in the trainer's own words and with consideration of the readiness of the learners for group work.
- Learners may not be used to this format and should be gently introduced to this form of engagement.

The group leader is not expected to take the role of the trainer, but should assist with completing the following tasks and act on behalf of the group:

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- Organising the recording of any notes during the discussion with a view to formalising responses for discussion. Another member of the group can be asked to be the note-taker.
- Developing an agreed response to each question or issue insofar as that is possible which should be recorded clearly and legibly on any worksheets provided. If agreement cannot be reached the different views should be recorded.
    - The responses to the questions posed in the activity should be presented as a team and any queries raised by the group should be clarified by the team.

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8. INDICATIVE DELIVERY

It is recommended that a break is taken after 1.5 hrs of learning and a longer break/lunch recommended after 3-4 hrs of learning.

Learning Unit 1- Introduction and Induction (1 hour)				
Title of *Topic* being covered	**Breakdown of activity**	**Breakdown of Timing**	**Resources/*hand-outs***	**Assessment**
Induction **Introduction of GUPP** **Delivery of Course**	Pre survey Assessment 1. Activity in discussion forum throughout the course PPT: Overview of the Course Delivery Protocol Activity: Introductions	10 minutes 30 minutes	Induction.pptx	Pre-Survey 1. Discussion Forum
Required software/applications	PPT: Explaining required software Downloads of software	20 minutes	Required software for course.pptx	
Self Study	Review LU2 and Resources	90 minutes	LU2 PPTs	

Learning Unit 2- GPP Drivers: An Overview (2.5 hours)				
Title of *Topic* being covered	**Breakdown of activity**	**Breakdown of Timing**	**Resources/*hand-outs***	**Assessment**
Introduction to GPP	PPT: Principles and benefits of Green Public Procurement	10 minutes	2.1 Buying Green Handbook	

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Benefits of GPP				
EU Policies and Environmental Legislation **National Policies and Environmental Legislation**	PPT: Framework and preparatory steps and review legislation at EU and National levels Discussion break out rooms / Slido questions	30 minutes 20 minutes	Circular economy Plan EU GPP Criteria Good Practice Examples	
Self Study	Review LU3 and Resources	120 minutes	LU3 PPTs	

Learning Unit 3 - Adoption of GPP (3.5 hours)				
Title of *Topic* being covered	**Breakdown of activity**	**Breakdown of Timing**	**Resources/*hand-outs***	**Assessment**
Building the Framework for GPP	PPT: GPP Strategy and Policy	15 minutes	*Procura+ Manual (3rd edition, 2016)*	2. GPP Strategy
Framework: Scope and Targets	PPT: Setting the Scope and levels of targets	15 minutes	*Circular Procurement Guidance (2017)*	
Monitoring GPP	PPT: Assessment and internal review Assessment 2. Group Activity: Set up a strategy and assess. Present to main group OR Self directed set up a strategy for your organisation and upload to Moodle	30 minutes 30 minutes	Breakout rooms Activity Jamboard/whiteboard OR Activity sheet with Flipboard OR	

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			Self directed activity online sheet	
Self Study	Review LU4 and Resources	120 minutes	LU4 PPTs	

Learning Unit 4 - Circular Economy and GPP (4 hours)				
Title of *Topic* being covered	**Breakdown of activity**	**Breakdown of Timing**	**Resources/*hand-outs***	**Assessment**
What is Circular Economy	PPT: Linear vs Circular	10 minutes		3. Quiz
Circular Economy: A Closer look	PPT: Circular for all stages in construction Short discussion on existing practices /Slido questions	40 minutes		
Circular Procurement	PPT: Procurement in construction Activity: check list of recyclate materials Assessment 3: Quiz online	30 minutes 10 minutes 30 minutes		
Self Study	Review LU5 and Resources	120 minutes	LU5 PPTs	

Learning Unit 5 - Legal Aspects of GPP (3 hours)				
Title of *Topic* being covered	**Breakdown of activity**	**Breakdown of Timing**	**Resources/*hand-outs***	**Assessment**
EU Directives and Treaty Principles	PPT: Treaty principles and transparency	20 minutes		

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Types of Procedure	PPT: Choosing procedures	10 minutes		
Legal exclusions	PPT: Performance vs specification based contract and clauses	30 minutes		
Self Study	Review LU6 and Resources	120 minutes	LU6 PPTs	

Learning Unit 6 - Needs Assessment and Market Engagement (3.5 hours)				
Title of *Topic* being covered	**Breakdown of activity**	**Breakdown of Timing**	**Resources/*hand-outs***	**Assessment**
Needs Assessment	PPT: Develop a needs assessment plan	20 minutes		4. Group Presentation
Market Engagement	PPT: Engage with the market effectively Assessment 4: Group Activity- Break out rooms - how to develop a plan and engage with market. Present to main group	30 minutes 40 minutes		
Self Study	Review LU7 and Resources	120 minutes	LU7 PPTs	

Learning Unit 7- Awarding Criteria (4 hours)				
Title of *Topic* being covered	**Breakdown of activity**	**Breakdown of Timing**	**Resources/*hand-outs***	**Assessment**

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Specifications and Selection Criteria	PPT: Criteria for technical specifications and exclusions	20 minutes		5. Quiz
Award Criteria with Contract Clauses	PPT: MEAT and competencies and green criteria Activity: Discussions on Criteria in a Case Study Assessment 5: Quiz online	30 minutes 40 minutes 30 minutes		
Self Study	Review LU8 and Resources	120 minutes	LU8 PPTs	

Learning Unit 8 - EU Level(s) (3.5 hours)				
Title of *Topic* being covered	**Breakdown of activity**	**Breakdown of Timing**	**Resources/*hand-outs***	**Assessment**
Introduction to EU Levels	PPT: How levels can support you Delivery Protocol	30 minutes		
Setting up a project	PPT: Establish a levels project plan Activity: Group Discussions and/or Slido Questions	40 minutes 20 minutes		
Self Study	Review LU9 and Resources	120 minutes	LU9 PPTs	

Learning Unit 9 - Life Cycle Assessment (4 hours)

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Title of *Topic* being covered	Breakdown of activity	Breakdown of Timing	Resources/*hand-outs*	Assessment
Introduction to LCA	PPT: Introducing LCA for different design phases	10 minutes		6. Quiz
Business Case	PPT: Business benefits	10 minutes		
Performing Building LCA	PPT: Steps for a building LCA Activity: Collecting LCA data in EPD Hub Activity: Group discussions on LCA in a new construction project Assessment 6: Quiz online	30 minutes 10 minutes 30 minutes 30 minutes		
Self Study	Review LU10 and Resources	120 minutes	LU10 PPTs, LCC videos	

Learning Unit 10 - Life Cycle Costing (3.5 hours)				
Title of *Topic* being covered	**Breakdown of activity**	**Breakdown of Timing**	**Resources/*hand-outs***	**Assessment**
Introduction to LCC	PPT: Overview of the role of LCC in GPP	10 minutes		
Tools	PPT: introduction on how to assess lifecycle costs Activity: Review the demo videos on LCC and set out a LCC for your own building project	20 minutes 60 minutes		

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Self Study	Review LU11 and Resources	120 minutes	LU11 PPTs,	

Learning Unit 11 - GPP & BIM (4 hours)				
Title of *Topic* being covered	**Breakdown of activity**	**Breakdown of Timing**	**Resources/*hand-outs***	**Assessment**
Collaborative BIM	PPT: Overview of the Course Delivery Protocol Activity: Introductions	10 minutes 20 minutes		7. Individual/Paired Activity
BIM and Procurement	PPT: Explaining required software Downloads of software	30 minutes		
BIM for Tenders	Assessment 7: Individual/Pair Activity Online Set up and upload to Moodle	60 minutes		
Self Study	Review LU12 and Resources	90 minutes	LU12 PPTs	

Learning Unit 12 - Verification (3.5 hours)				
Title of *Topic* being covered	**Breakdown of activity**	**Breakdown of Timing**	**Resources/*hand-outs***	**Assessment**
Evaluate and Verify	PPT: Importance of verification and ecolabels	20 minutes		8. Quiz Post Survey

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Monitoring and Reporting	PPT: Approaches to reporting and measuring impact of GPP	20 minutes		
Panel	All speakers to answer Q&A using slido. Feedback from attendees. What training is next? Assessment 8: Quiz online Post Survey	40 minutes 10 minutes 30 minutes		

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