

BUGI Western Balkans Urban Agriculture Initiative



Frasmus + Program of the European Un

Moodle for beginners

-manual-



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1. LMS MOODLE – INTRODUCTORY WORD

Moodle stands for *Modular Object-Oriented Dynamic Learning Environment*, which means that Moodle is a modular, object-oriented dynamic learning environment and as such is characterized by a modular approach (Moodle platform upgrades are possible via a module), object-oriented approach (it uses objects in terms of modules and tasks, which expands the possibilities of the platform and provides huge possibilities in terms of using the learning platform), dynamic approach (uses dynamic web-based technologies, which provide additional possibilities combined with modular and object-oriented approaches). This environment presents a very powerful tool for creating a virtual or hybrid learning environment.

In other words, the Moodle platform presents an open-source software solution designed to support a social constructivist learning model. Moodle contains a set of tools that support the sharing of learning resources and activities and promote active learning through collaboration and experience. Through these tools and the overall design of the Moodle platform, a better insight into the course of the teaching process is provided, which is why Moodle is used in almost all forms of formal and non-formal education. Moodle is most commonly used for its simplicity of use, flexibility, and large set of tools used as supplementary learning activities. It supports interdisciplinary approach, interactive student participation and monitoring of the teaching process in real time, which fully meets the needs of the Master studies in Urban Agriculture, organized within the frame of the project Urban Agriculture Initiative - BUGI (586304-EPP-1-2017-BA-EPPKA2-CBHE-JP)¹.

The manual in front of You aims to present the basics of the Moodle platform to teachers, explain the possibility of using the Moodle platform as a learning support and explain the basic tools of the Moodle platform for organizing activities and sharing resources. The last chapter of the manual refers to the official Moodle module directory, as a step for advanced users. All photos of the Moodle platform were taken on the official Moodle page of the Project (moodle.bugi.unsa.ba), and all instructions were taken from the official Moodle page (moodle.org).

¹ Project number: 586304-EPP-1-2017-1-BA-EPPKA2-CBHE-JP "This project has been funded with support from the European Commission. This publication 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"

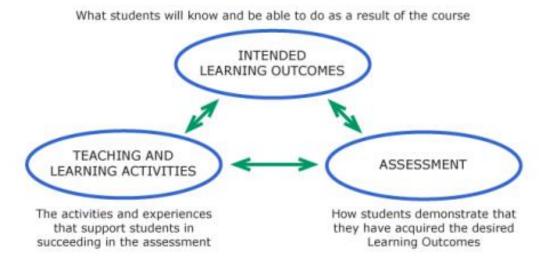
2. LMS MOODLE – SHORT INTRODUCTION

Moodle platform in technical terms of maintenance does not present any problem to anyone that is familiar with dynamic web technologies, but this part of the job is usually left to administrators, so the teacher does not need to be familiar with them, the possibility of using the Moodle platform without knowing these technologies is not diminished for teachers, respectively, the students. An important part of knowing the Moodle platform for teachers and students is understanding the possibilities of this platform in support of active participation, respectively identifying the elements (activities and resources) of the Moodle platform that can be used during certain learning steps.

Moodle – learning support

The Moodle platform should be viewed as a support to the learning process, which essentially means that, as in learning conditions without the use of the Moodle platform, it is necessary to define learning outcomes and learning activities. Only after defining the learning outcomes, learning activities and verification methods, the Moodle tools are selected to suit the needs defined in the learning outcomes.

Illustration 1 - Constructive alignment in learning planning



Source: https://www.adelaide.edu.au/learning/teaching/curriculum/outcomes/writing-course-learning-outcomes.pdf

In other words, before using the Moodle platform, it is necessary to carry out all the steps of planning learning and distance learning, and then select the appropriate tools for the planned learning steps. Wrong choice of learning tools will reduce the effects of learning activities and will thus question the planned learning outcomes, which is the most common mistake when using the Moodle platform and its tools. Thota and Whitefield (2009) explaining the use of

different tools offered by moodle when creating introductory courses create a table showing how before beginning of the course, during the planning of the teaching process, defining tools that can be used for certain learning outcomes. In Table 1, is shown the table taken from Thoth and Whitefield (2009), and can serve as an example of good distance learning planning for all users.

Table 1 - Example of constructive	alignment and use of Moodle tools
-----------------------------------	-----------------------------------

Planned learning outcomes		Moodle tools				
		Task	Wiki	Journal		
Recognizing, following, implementing, translating	Х	Х	Х			
Analyzing the problem, applying, adapting, presenting		Х	Х			
Modelling, designing		Х	Х	Х		
Organizing, characterizing				Х		

Source: Thota i Whitefield (2009)²

In this example is shown the way of constructive alignment of using Moodle tools.

Navigation, login and basics of graphical interface

The Moodle platform is a website that you access from a browser, in this case Chrome and the Moodle platform moodle.bugi.unsa.ba. the appearance of the first page depends on the selected theme of the Moodle platform and the preference of the administrator. In this case, on the first page there is a list of courses/subjects active in the Master Studies of Urban Agriculture (Illustration 2).

In the upper right corner, there is a "Log in" link, which link directs you to the log in page, or the page for registration on the Moodle platform (Illustration 3). The log in page of the Moodle platform does not differ from the established log in pages of various platforms and portals on the Internet, what can be noticed is that a new user account can be created under the log in section on the same page. Students, teachers and users of this Moodle platform create their user account in this way. The look and content of the registration form can be changed, but in most

² Hirashima, C & Klett, T & Liu, J & A, Nakabayashi & Wong, Kalok & Thota, Neena & Whitfield, Richard. (2009). Use of CALMS to enrich learning in introductory programming courses.

cases it is a standard registration form that requires you to enter your first name, last name, username, password, and email address (Illustration 4).

E PPF Sarajevo - BUGI	You are not logged in. (Log in)
PPF Sarajevo - BUGI	
Available courses	
Moodle za nastavnike	
© Osnovi urbane poljoprivrede - OUP5	
Metode naučnog rada - MNR3	
Precizna poljoprivreda i pametna proizvodnja hrane - PPiPP4	
Eksperimentalna statistika - ES6	
[®] Urbana ekologija - UE4	
Urbani sistemi distribucije hrane - USDH4	
Poduzetništvo - POD4	
Teacher: Aleksandra Nikolić	

Illustration 2 - The look of the first page of Moodle platform

You are not logged in. (Log in) The odde Data retention summary

Source: moodle.bugi.unsa.ba

Upon registration, the user usually needs to confirm the registration by e-mail, ie the user receives an e-mail with a link that confirms the registration on the Moodle platform.

Illustration 3 - Log in page of Moodle platform

PPF Saraj	evo - BUGI					
Username	Forgotten your username or password?					
Password	Cookies must be enabled in your browser 🕢					
C Remember username	Some courses may allow guest access					
Log in	Log in as a guest					
Is this your first time here? For full access to this site, you first need to create an account.						
Create new account						

Source: moodle.bugi.unsa.ba

Upon completion of the registration process, the user can log in to the Moodle platform using the log in page shown in Illustration 3.

Illustration 4 - Registration form for users of Moodle platform

New accou	
 Choose y 	vour username and password
Username 🕕	
	The password must have at least 8 characters, at least 1 digit(s), at least 1 lower case letter(s), at least 1 upper case letter(s), at least 1 non-alphanumeric character(s) such as as *, -, or #
Password 🌖	
 More det 	ails
Email 🔒	
address	
address Email ()	
address Email ((again)	
address Email (again) First name ()	
address Email (again) First name () Surname ()	Select a country +

Source: moodle.bugi.unsa.ba

After logging in, the user is redirected to the control panel (dashboard).

Control panel

The appearance of the control panel looks different depending on what type of user you are on the Moodle platform. There are several types of users on the Moodle platform, and in this case we will mention only three forms of users, ie only what is basic for a simple site with the Moodle platform to be maintained and used. These three types of users are Manager/Administrator, Teacher and Student.

Administrator/Manager is a type of user that has all the authority on the Moodle platform, which means that he can edit platform settings, create courses, delete courses, create and manually confirm or register users, edit control panel blocks and layout, in short, manages the platform.

Teacher, ie the teacher is the type of user whose management is limited to the domain of a certain course, therefore, the teacher manages, organizes and edits the contents of individual courses on the Moodle platform.

And the student as a type of user who essentially edits his own profile, and some language type settings, displays preferences, etc., and attends classes through courses or subjects that are on the platform.

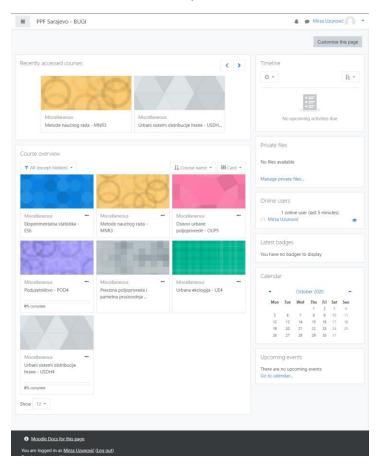


Illustration 5 - The look of control panel for teachers

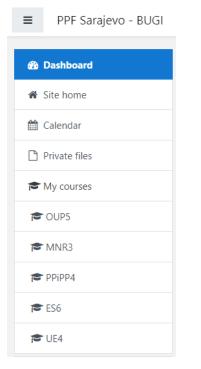
Source: moodle.bugi.unsa.ba

In this case, the assumption is that the user has the authority of a Teacher, ie the manual is written for teachers and therefore the continuation is written from the role of a teacher. Illustration 5 shows the control panel which can be seen after the teacher's entry, and it contains in the central part the courses that the teacher leads, ie in the upper part accessible courses soon, and

in the lower part all the courses where the user guides as a teacher. The look of the control panel can be changed according to the teacher's preferences (button in the upper right corner Customize this page), but for the beginning, none of the looks needs to be changed in order to run the platform unhampered. In the right part of the control panel, there are blocks with a calendar of activities, online users, upcoming events and the like. All of the above blocks are quite intuitive for the average user of web technologies and there is no need to explain each of them separately

In the upper left corner, next to the platform logo, there is a button that opens the navigation panel, ie makes a menu for the user, in accordance with the user's authority. This part also changes with the number of courses you lead, ie it serves to navigate through the platform between different courses, and within the course, between different sections of the course. This section also depends on the choice of the display theme of the Moodle platform, so on some topics you always have a visible navigation menu, while on other topics there is no visible menu, until you open the same.

Illustration 6 - Navigation menu of Moodle platform



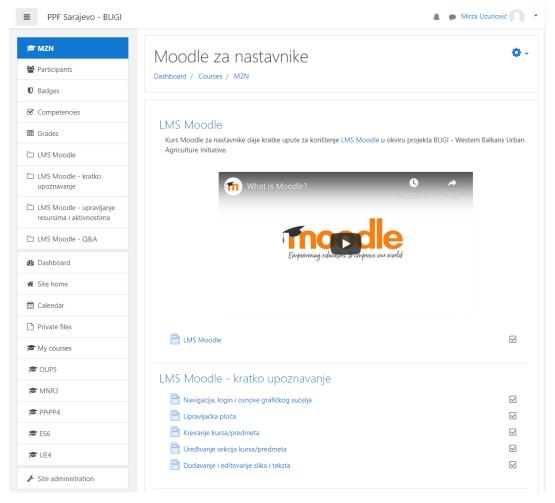
Source: moodle.bugi.unsa.ba

So, the control panel gives an insight into the courses, the calendar of activities and serves for easier navigation on the platform. Clicking on any of the courses opens the course page, which essentially presents the Moodle resources and activities offered to students.

Creation of courses/subjects

The look of the course with an open navigation menu is shown in Illustration 7, where sections of the course can be seen in the right part, while in the left side there are navigation elements, in the upper part for navigating course sections, access to course participants, evaluations of individual activities and the like and the the lower part for navigating within the Moodle platform.

Illustration 7 - The look of the course with an open navigation menu

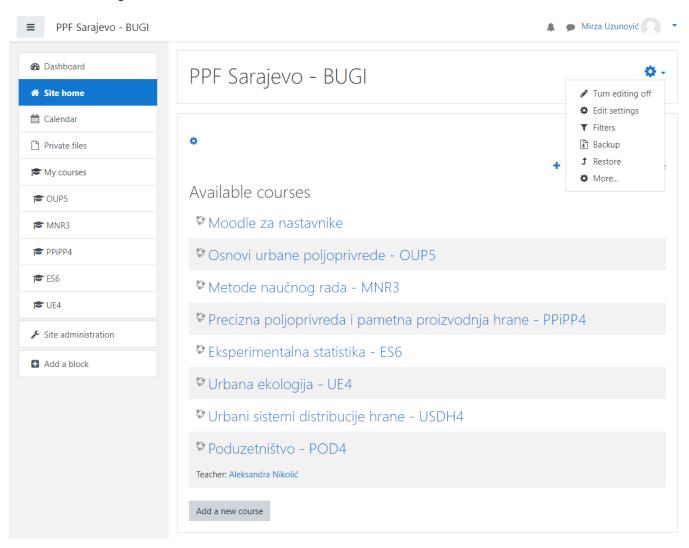


Izvor: moodle.bugi.unsa.ba

Creating a course can be done in several ways, and the simplest way is to return to the first page of the Moodle platform while the user is logged in (by clicking on Site home in the navigation bar), and then turning on editing that page (see Illustration 8).

On each page of the Moodle platform that the teacher has the authority to edit, there is a button in the upper right corner and a drop-down menu that includes editing the third page. In this case, it is the editing of the first page of the Moodle platform, which, by enabling the editing of that page, places a button for adding a new course at the bottom of the list of already existing courses (Add new course in Illustration 8).

Illustration 8 – Adding new course



Source: moodle.bugi.unsa.ba

After clicking on the button to add a new course, a page opens in which you enter data for the new course (Illustration 9), where you enter basic information about the course, name, abbreviated name, course duration, number of sections you want to have on the course and the like. This part of the Moodle platform is also quite intuitive for the user, ie almost always the names of the elements you edit say everything about what these elements stand for and what they are used for, so there is no need for further explanation of these elements.

Once you have entered everything you need to create a course (the required elements are marked on this form, and even if you miss some of them, Moodle will not allow you to create a course without these necessary elements). After accessing the course, the course sections and the navigation menu will be displayed, as shown in Illustration 7.

🌲 🍺 Mirza Uzunović 🔘 🝷 ■ PPF Sarajevo - BUGI Dashboard PPF Sarajevo - BUGI Site home Dashboard / Site administration / Courses / Manage courses and categories / Add a new course 🛗 Calendar Private files Add a new course Expand all My courses General CUP5 Course full name \, 👔 S MNR3 Course short 0 0 The Prippa name Course category 0 Miscellaneous 🗢 🕿 ES6 Course visibility 0 CE UE4 Show \$ 🔑 Site administration Course start date 0 23 October 2020 00 00 🗢 🛗 Add a block Course end date 0 23 \$ October ♦ 2021 ♦ 00 ♦ 00 ♦ 11 Enable Course ID number ิด Description Course summary 0 1 A - B I 😑 🗏 % 🕉 🖬 🗟 🔮 🛤 🙆 Maximum file size: Unlimited, maximum number of files: 1 Course image 0 III 🗉 🖿 Files

Illustration 9 - Adding a new course in the Moodle platform

Source: moodle.bugi.unsa.ba

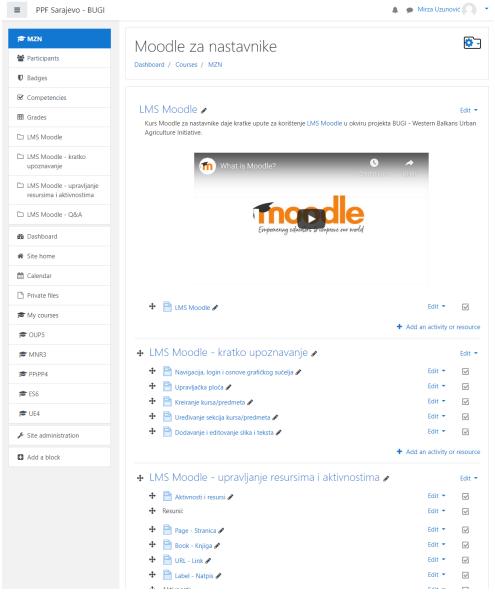
This is a confirmation that the course has been created, and the next stage before using the course is to add sections and course users.

Editing course/subject sections

Editing course sections is done by turning on editing that page on the course page in the upper right corner, the same procedure as when creating a new course. In this case, after turning on page editing, you get the look of the page as in Illustration 10. It can be noticed that next to each section, activity or resource, an icon has been added to indicate the editing of each of the individual sections. After clicking on the icon for a particular section, a menu opens (Illustration

11) that offers options for editing the section, and these options, like everything else, are quite explanatory by function and name of the option.

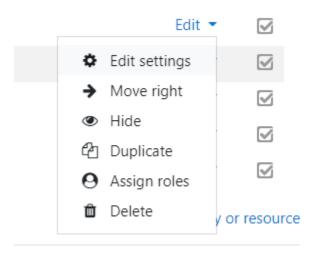
Illustration 10 - Editing course sections



Source: moodle.bugi.unsa.ba

Editing of sections of the course is done on the basis of constructive alignment and learning outcomes, ie they determine the number of sections, the number and type of used activities or resources of the Moodle platform, which will be discussed further.

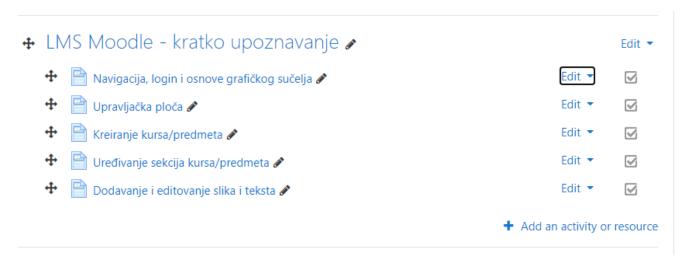
Illustration 11 - Menu of editing sections inside the course



Source: moodle.bugi.unsa.ba

After the course has been edited, the sections created, the setting of certain activities is done by clicking on Add activity or resource (Add an activity or resource), the link located at the bottom of each section when the course editing mode is on (Illustration 12).

Illustration 12 - The look of course section in editing mode



Source: moodle.bugi.unsa.ba

The process of adding activities or resources will be explained later, in the section explaining resource and activities management on the Moodle platform. The next step in creating a course is to add users to the course.

Adding students/users

One of the ways of adding a user to the course is to click on the link that leads to the user's page (Participants) in the navigation menu (Illustration 10) after which you get the page with the following look:

Illustration	13 –	The look	of the	page of	course users
--------------	------	----------	--------	---------	--------------

■ PPF Sarajevo - BUGI					Mirza Uzunović
管 MZN 營 Participants	Moodle za na				
Badges	Dashboard / Courses / MZN	/ Participants			
☑ Competencies	Participants				Q -
I Grades	No filters applied				Enrol users
C LMS Moodle	Search keyword or select filter	▼			
LMS Moodle - kratko upoznavanje	Number of participants: 2 First name All A B C D	E F G H I J K L	M N O P	Q R S T U V	W X Y Z
LMS Moodle - upravljanje resursima i aktivnostima	Surname All A B C D f	F G H I J K L	M N O P	Q R S T U V V	w X Y Z
🗅 LMS Moodle - Q&A	First name A / Select Surname	Email address	Roles Gi	Last access to roups course	Status
🚯 Dashboard	🗆 💽 osman music	o.music@ppf.unsa.ba	Student No	204 days 22 hc	ours Active 🛈 🌣
🖀 Site home			Student N	oups	Active 3
🛗 Calendar	Pakeza Drkenda	p.drkenda@ppf.unsa.ba	ø gr	oups 281 days	â
Private files	Select all Deselect all Wi	th selected users Choos	ie	÷	
A My courses					Enrol users

Source: moodle.bugi.unsa.ba

On that page, you can see the added users, that is, there is a button that indicates the addition of new users (Enroll users), after which a menu opens giving the ability to search and add new users to the course (Illustration 14).

Use the search field to search for registered users on the platform and click to add them to the list you want to add to the course, and then click on the add button to do so. It should be noted that when adding users to the course, the role of the user is defined, whether he is a teacher or a student

Illustration 14 - Menu for adding new users

Enrol users				×
Enrolment option	S No selection			
	Search	•		
Assign role	Student	\$		
Show more				
			Enrol users Car	ncel

Source: moodle.bugi.unsa.ba

After explaining the part related to a brief overview of the platform and the use of the basics of navigation and creating a platform element, the task is to present the activities and resources of the Moodle platform with their purposes when planning distance running courses.

Adding and editing images and text

It is also important to emphasize that editing images, text and other elements of the non-Moodle platform is quite simple, because the editor offered is actually a WYSIWYG (what you see is what you get) editor with options similar to a word processor or other similar pages. Illustration 15 shows the look of a standard Moodle platform editor.

Illustration 15 – The look of the Moodle platform editor
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$\underline{U} \underbrace{\$}{} x_2 x^2 \boxed{\textcircled{a}}{} $	
	/

3. LMS MOODLE – MANAGEMENT OF RESOURCES AND ACTIVITIES

Course sections are filled with content that can be activities or resources. Activities are Moodle platform tools that require some of the participants' activities or serve as a check (quiz, task or similar), while resources are those elements that serve to present information to participants and the like (book, file, link, page, etc.). In the basic version (no upgrades), the Moodle platform offers a lot of activities and resources (Illustration 16) which in combination can serve as a great tool for meeting the learning outcomes of distance learning.

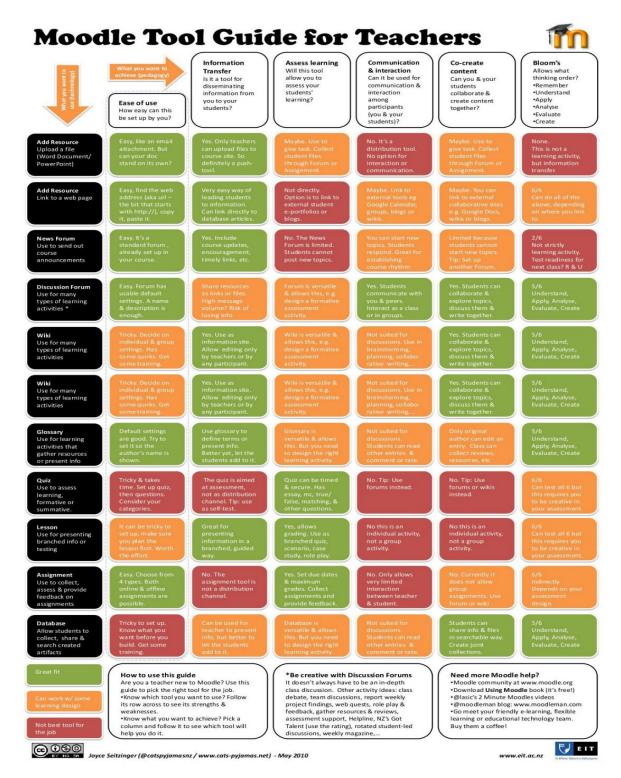
Add an ad	ctivity or resource	×
O 📒 Database	Select an activity or resource to view its help.	
O 🕂 External Tool	Double-click on an activity or resource name to	0
🔿 📮 Forum	quickly add it.	
Glossary		
🔿 V Quiz		
SCORM package		
O Survey		
О 🗰 Wiki		
🔿 👱 Workshop		
RESOURCES		
O Book		
O File		
O Tolder		
IMS content package		
🔿 🤣 Label		
O Page		
Add	Cancel	

Illustration 16 - Selection Menu of Moodle activities or resources

Source: https://blogs.sussex.ac.uk/elearningteam/2013/10/10/new-names-for-the-moodle-label-and-page-modules/

Below, some of the basic tools of the Moodle platform will be presented, and a summary of the tools and their purpose is presented in the following illustration:

Illustration 17 - Moodle tools for teachers



Source: https://issuu.com/lrogers/docs/tool_guide

Therefore, the selection of tools is done based on the need, ie the learning outcome to be achieved, and it should be borne in mind that a combination of different tools and purposes can achieve greater effects, or overcome some of the shortcomings of tools for certain learning outcomes.

Moodle activities

The basic activities offered by the Moodle platform are: assignment, chat, choice, database, feedback, forum, glosarry, lesson, quiz, questionnaire, wiki and workshop. Each of the tools has its own purpose and corresponds to the specific learning outcomes set when planning distance learning.

Here will be shown only some of the tools and their purposes, and they are:

• assignment

assignment, a tool for downloading and grading student assignments in electronic format. Using this tool, you provide students with a direct way to submit content, essays, seminar papers, presentations and the like. it is usually used as a tool to describe the task and the place where students submit their, offline, completed assignments. In this regard, the tool can be used to define deadlines for the submission of certain tasks, and it is possible to set the notification and submitted papers, or a reminder to the teacher to review these papers. A very often used tool and usually used in combination with Moodle platform resources.

• chat

chat, an interactive activity that enables real-time textual discussion. There are also options for audio discussions, and more recently additions to the Moodle platform that can be used for video discussions (see Moodle plugin directory).

choice

choice, a tool that presents students with only one question, or choice. It is used to examine student preferences or group decision-making during the course.

database

database, a joint activity for all students and teachers that allows the creation of common databases needed for learning, whether it is files, images, data of any type. It enables a quick search of jointly created database.

• forum

forum, online discussion where it is possible to post messages, discuss, keep all discussions in one place, ie it is a great tool for monitoring the flow of discussions

• glosarry

glossary, a tool that allows the creation of glosarries of terms and concepts. As an activity, it is available for everyone, so that students can also create entries in the glosarry, ie define a specific glosarry of concepts needed for learning.

lesson

lesson, is used for programmed learning units in which each correct answer leads to new data and information, interactively guides the student through the material. A very useful tool for improving interaction and avoiding repetition of material for students with different backgrounds.

• quiz

quiz, a tool for creating quizzes with various types of questions. It is also possible to use this tool for distance exams.

• questionnaire

questionnaire, a data collection tool, not for grading and quizzes. It is most often used for feedback information from students.

• wiki

wiki, a collection of pages created in cooperation with other students and teachers.

workshop

workshop, a guided activity that in its steps is a workshop. It is used to organize online workshops where students need to submit some of their papers that are checked and graded immediately.

By combining these tools, it is possible to fulfill almost all learning outcomes. Combined with Moodle platform resources, the possibilities are further strengthened.

Moodle resources

The basic resources offered by the Moodle platform are: book, file, folder, label, page and link. Each of them will be presented:

• book

book, a multi-page resource in the form of a book that presents knowledge and concepts.

• file

file, a resource for sharing files, presentations, lists, photos and the like.

• folder

folder, a tool for organizing various files and shared Moodle resources.

label

label, is used to organize the course in a section and clearly marks or describes resources or activities

• page

page, a resource-sharing tool, is most commonly used to display videos or other content that needs to be organized in a special place.

• link

link, a tool for sharing external links.

The way in which these tools are used, whether they are activities or resources, therefore depends on the learning outcomes set for teachers and students. The success of using the same tools depends on the correct choice of these tools for special purposes.



Illustration 18 – The most often used tools of Moodle platform

Source: Soares, Filomena & Lopes, Ana Paula. (2018). ONLINE ASSESSMENT THROUGH MOODLE PLATFORM. 4952-4960. 10.21125/iceri.2018.2124.

The basic tools of the Moodle platform can meet the needs of almost all learning outcomes, and the most often used tool combination is just shown in Illustration 18, where it can be seen that the Moodle platform is most often used for resource sharing.

4. LMS MOODLE – MODULE DIRECTORY

Moodle platform is open source, as already mentioned, which brings a huge number of advantages, and one of the biggest is that there are a huge number of modules for Moodle created by users according to their needs, that is, it is possible to upgrade the list of tools offered by Moodle platform. A directory of modules that can be downloaded and installed for free on the Moodle platform is available at the page <u>https://moodle.org/plugins/</u>. Installation is quite simple, it requires you to be a member of the Moodle community, or to be a registered user of the Moodle platform and administrator authority on your Moodle site

In this directory is offered a huge number of modules and supplements for Moodle, some of which should be singled out, such as H5P plugins and other plugins that offer greater opportunities to create interactive learning content on the Moodle platform.