Evaluation using Quizzes

The **Quiz** module allows the instructor to design and set quizzes consisting of a large variety of different Question types, such as, multiple choices, true-false, and short answer questions.

These questions are created and categorized in the **Question bank** and can be re-used within the same course and between different courses of same or different instructors. Quizzes can allow multiple attempts. Each attempt is automatically marked, and the instructor can choose whether to give feedback and/or show the correct answers.

Moodle's quiz module has a large number of options and tools, making it extremely flexible. We can create quizzes with different question types, randomly generated quizzes from pools of questions, allow students to have repeated attempts at a question or retake quizzes multiple times, and have the computer score it all.
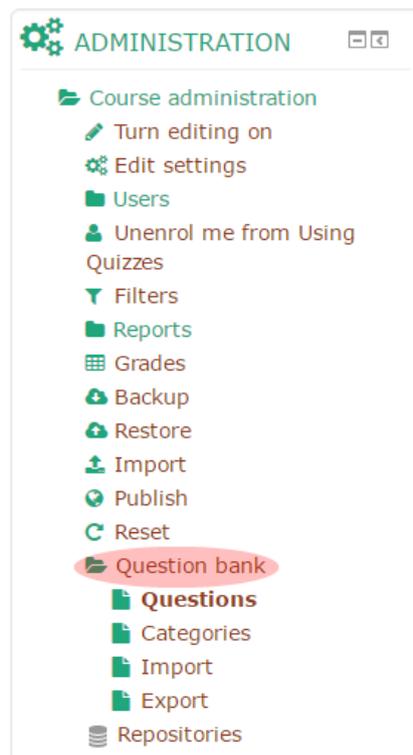
The Course space

Click on the title of your course where you want to work with Quizzes. Remember: you have to be an instructor inside the course in order to "**Turn editing on**".

Now, you are in the course homepage.
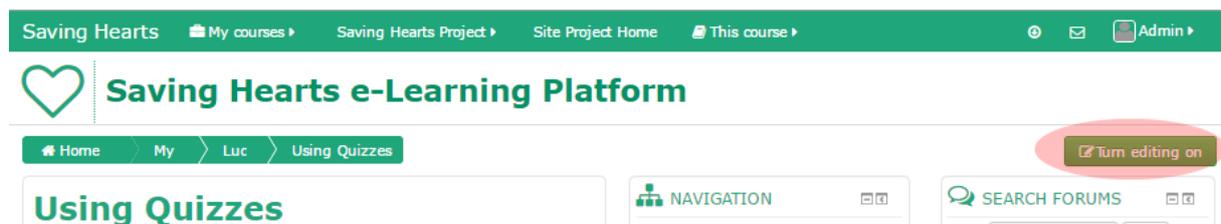
The Question bank

Each course has a *Question Bank*. You can either start creating your questions in the *Question Bank* before you create the quiz or create the quiz activity and add questions you've previously added to the *Question Bank*.

We recommend you focus first on the *Question Bank* by creating the questions. Later you can create a quiz and add questions from the *Question Bank*.

Questions are organized into categories. Initially each course has only one category called "Default". It is a good practice to create more categories to organize your questions. You can create a hierarchy of categories because you can create subcategories inside parent categories. To add or edit categories click on the "Categories" menu item.

Add a new question

Select the **Questions** option from the **Question bank** menu:

From the Category: drop-down menu, select a category you want to add a question to. Then click on the **Create a new question** button.

From the next screen, choose the question type you want to add and click "Add"

NOTE: When you click on a question type on the left, helpful information appears on the right.

Each question type has its own form and has its own options. It can contain any number of questions, and they can be:

1. *Multiple Choice*: Both single- and multiple-answer multiple-choice questions are possible.

2. *True/False*: This is a simple multiple-choice question with only two possible answers.

3. *Short Answer*: Students answer this question by typing a word or phrase. You need to provide a list of acceptable answers.

4. *Numerical Question*: This is a short-answer question that accepts a numerical value instead of a word.

5. *Calculated*: This is a mathematical equation with placeholders for values that will be pulled randomly from a dataset when a student takes the quiz.

6. *Matching*: This is a standard two-column matching question.

7. *Description*: This is for embedding some text in the quiz. (It's not a question type.) It can be used to give mid-quiz instructions.

8. *Random Short-Answer Matching*: The subquestions for the matching exercise are randomly drawn from short-answer questions in the category.

9. *Embedded Answers (Cloze)*: This is a question with multiple question types embedded within it, such as multiple choice, short answers, and numerical.

10. *Essay*: This is a question requiring a paragraph or two of text. Students are not assigned a grade until you have reviewed and manually graded the question.

The questions may also have feedback, where it can explain the answer to the students.

Multiple Choice

To add a multiple choice question, select the *Multiple Choice* radio button. This will take you to the multiple choice question screen:

Editing a Multiple choice question

▶ Expand all

▼General

Current category	Default for Using Quizzes (1) ☑ Use this category
Save in category	Default for Using Quizzes (1) ▼
Question name*	The colors of the flags of countries
Question text*	[Paragraph ▼ B I ☰ ☰ 🔗 ✂ 🔗 🖼 ▣ 📋] Which country has the color white in its flag?

Type in the *Question name* field something to help you identify the question in the list, then type in the question in the text box area. The *Question text* box allows formatting (bold, italics, etc.) by using the formatting tool bar above the text box area. You do not have to type the answers in the *Question text* box – the program will list the answers you type in the various "Choice #" boxes:

Choice 1	[Paragraph ▼ B I ☰ ☰ 🔗 ✂ 🔗 🖼 ▣ 📋] Italy Path: p
Grade	50% ▼
Feedback	[Paragraph ▼ B I ☰ ☰ 🔗 ✂ 🔗 🖼 ▣ 📋] Path: p

You may then select if students are allowed to select more than one answer, or if there is only one answer allowed. Then you can select whether to shuffle the choices or not and by choices we mean the answers. Also you can choose how you want your choices to be listed, 1, 2, 3 or a, b, c and so on.

One or multiple answers?	Multiple answers allowed ▼
Shuffle the choices?	☑
Number the choices?	a., b., c., ... ▼

For each question it is mandatory to set the *Default mark*. The *General feedback* of the question is optional:

Something that is different for multiple choice questions is they have weight. The positive answers must add up to 100%, or the system will ask if that is what you want to do. You do have the option to assign negative weight to an answer, such that a wrong answer might actually count against the student, instead of being no credit. This might be true where multiple answers are possible, such that A) is worth 50%, B) is worth -50% and C) is worth 50%. A student selecting A) and C) would get full credit, but a student selecting A) and B) would get no credit at all. You do have the option to make a wrong answer not count either way as well.

Feedback can also be given for any correct, partially correct or incorrect response.

Providing feedback is an important aspect for students. Use these options to clarify, explain and illustrate what the correct response should or could have been. Also, when student perform well it is important to enforce that as well. Use the feedback option to compliment their work.

The section *Combined feedback* enables you to add overall feedback for correct/partially correct/incorrect responses. This is particularly useful for multiple-response questions, in which it can be difficult to control the feedback students see if you are just using answer-specific feedback.

▾Combined feedback

For any correct response

	Paragraph ▾	B	I	☰	☰						

Your answer is correct.

Path: p

For any partially correct response

	Paragraph ▾	B	I	☰	☰						

Your answer is partially correct.

Path: p

Options   ☐ Show the number of correct responses once the question has finished

For any incorrect response

	Paragraph ▾	B	I	☰	☰						

Your answer is incorrect.

Path: p

Multiple tries – Hints

For quizzes using the *Interactive with multiple tries* or *Adaptive mode* behaviour (thereby enabling students to have several attempts at getting a question correct), this option will control how much they are penalised for each incorrect attempt. The penalty is a proportion of the total question grade, so if the question is worth three marks, and the penalty is 33.33333%, the student will score 3 if they are correct on the first try, 2 if they are correct on the second try, and 1 if they are correct on the third try. Hints can only be used in the Interactive with *multiple tries mode*. To use hints, type a hint into the text box. When attempting the quiz, the hint will appear whenever a student gets the answer wrong, thereby enabling the student to reattempt the question. You can add as many hints as you like and the student will get as many tries as there are hints.

▾Multiple tries

Penalty for each incorrect try   33.33333% ▾

Hint 1

	Paragraph ▾	B	I	☰	☰						

Path: p

Hint 1 options   ☐ Clear incorrect responses ☐ Show the number of correct responses

Hint 2

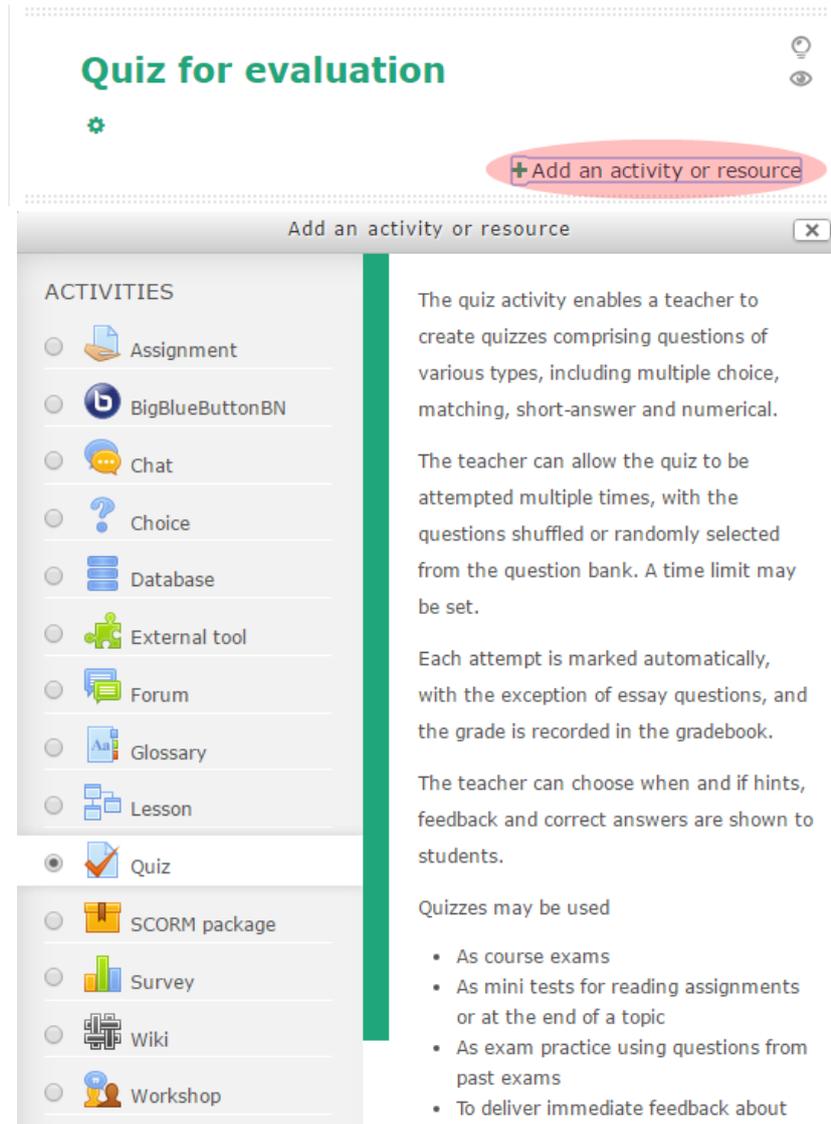|											
	Paragraph ▾	B	I	☰	☰						

Path: p

Hint 2 options   ☐ Clear incorrect responses ☐ Show the number of correct responses

Add another hint

The quiz

Now that you created the *Question Bank* of your course, add a quiz to your course, define the quiz settings and add the necessary questions from the *Question Bank* to your quiz.
To add a "Quiz", go to the course homepage and click on "Turn Editing On". Then, select "Quiz" from the "Add an activity or resource" menu. This takes you to the "Quiz" editing screen.

You will be asked to enter information about to setup the quiz in several sections.

General

Name – this can be anything you like.
Description – this is the introduction to the quiz. You can add full formatting using the formatting tools (bold, italics, etc.).

Timing

Open the quiz – this sets the opening date and time for the quiz. Students cannot take the quiz before this time. By Default, this date is disabled, which means that the student can take the quiz immediately. Enable it if you want to specify an opening date for the quiz.

Close the quiz – this sets the ending date and time of the quiz. Students cannot take the quiz after this time. By default, this date is disabled, which means that the student can take the quiz anytime. Enable it if you want to specify a closing date for the quiz.

Time limit – By default, time limit is disabled: students can take as much time as needed. If it is enabled, this will set how long a student can take the quiz (range should be in minutes).

Grades

Grading method – this allows you to set how quizzes are scored if the student can take the quiz multiple times. You can choose: keeping the highest grade, keeping the average of all the grades, keeping the first score, or keeping the latest score.

Layout

The layout options determine how the quiz questions are ordered and across how many pages the questions will appear. It is recommended to create a new page every 5 questions.

Question behaviour

When enabled, the **_Shuffle within questions_** option randomly shuffles the parts making up each question. This setting only applies to questions that have multiple parts.

The **_How questions behave_** option enables the provisioning of feedback and multiple tries together on the same question. For instance, students can interact with the questions in the quiz in various different ways. It may be a requirement for students to enter an answer to each question and then submit the entire quiz before any grading takes place and any feedback is made available to the students — this would be **_Deferred feedback_** mode. Alternatively, you may wish for students to submit each question as they go along to get immediate feedback and, if they do not get the question right immediately, have another try for fewer marks — this would be **_Interactive with multiple tries_** mode. These are probably the two most commonly used modes of question behaviour.

Review options

These options control what information students can see when they review a quiz attempt or look at the quiz reports.

During the attempt is only relevant for some behaviours, like *Interactive with multiple tries*, which may display feedback during the attempt.

Immediately after the attempt applies for the first two minutes after Submit all and finish is clicked.

Later, while the quiz is still open applies from two minutes after Submit all and finish is clicked until the quiz close date (if no close date has been set, this phase never ends).

After the quiz is closed applies after the quiz close date has passed (if the quiz does not have a close date, this state is never reached).

▾ Review options

During the attempt	Immediately after the attempt	Later, while the quiz is still open	After the quiz is closed
☑ The attempt	☑ The attempt	☑ The attempt	☑ The attempt
☐ Whether correct	☑ Whether correct	☑ Whether correct	☑ Whether correct
☐ Marks	☑ Marks	☑ Marks	☑ Marks
☐ Specific feedback	☑ Specific feedback	☑ Specific feedback	☑ Specific feedback
☐ General feedback	☑ General feedback	☑ General feedback	☑ General feedback
☐ Right answer	☑ Right answer	☑ Right answer	☑ Right answer
☐ Overall feedback	☑ Overall feedback	☑ Overall feedback	☑ Overall feedback

Overall feedback

The overall feedback is some text that is shown to a student after they have completed an attempt at the quiz. The text that is shown can depend on the grade the student got. For example, if you enter:

- Grade boundary: 100%
  Feedback: *Well done*
- Grade boundary: 40%
  Feedback: *Please study this week's work again*

then students who score between 100% and 40% will see the "Well done" message, and students who score between 39.99% and 0% will see the other message. That is, the grade boundaries define ranges of grades, and each feedback string is displayed to scores within the appropriate range. The grade boundaries can be specified either as a percentage, for example "31.41%", or as a number, for example "7". If your quiz is out of 10 marks, a grade boundary of 7 means 7/10 or better.

Common module settings

Visible - If it is set to "Show" will allow your students to see this page. If it is set to hide, your students will not see the page (**useful if you're still editing it!**).

ID number - Setting an ID number provides a way of identifying the activity for grade calculation purposes. If the activity is not included in any grade calculation then the ID number field can be left blank.

After all after all settings are done, you must select the *Save and return to course* button:

Adding Questions to the Quiz

In the course home page, with *Turn editing on*, select the quiz link (in example below, the name of the quiz is *Final exam*).
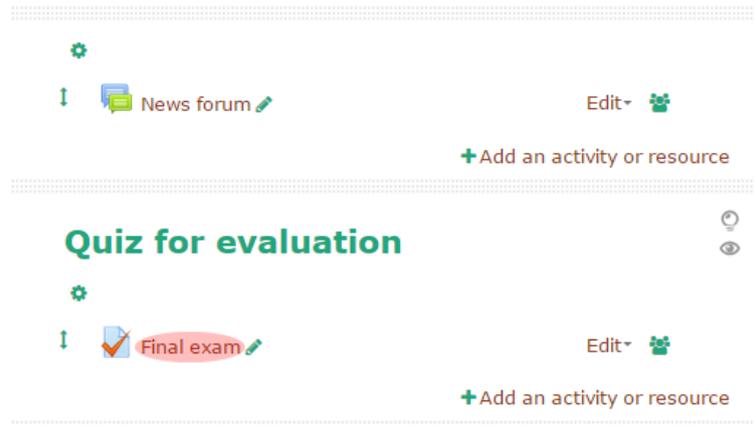
In the next screen, you must click on the *Edit quiz* button:

To add questions to the quiz, click on the **Add** button, and then select the "*from question bank*" option:

Select all questions from the *question bank* that you want to insert them in quiz and the click on the **Add selected questions to the quiz** or alternatively add them one by one by clicking the plus sign to the left of each question.

For each added question can be set the **_Maximum mark_** value. Also, for the entire quiz can be set the **_Maximum grade_**:

Each question can be revised by selecting the gearwheel indicated below:

Using the preview option of the question:

you can set the **_Attempt options_** and respectively the **_Display options_** of the selected question.

In the ***Attempt options*** section can be set the mark of the question and how the question behaves (related to the feedback):

▾ Attempt options

How questions behave

Deferred feedback ▾

Marked out of

1

In the ***Display options*** section can be set other display details:

▾ Display options

Whether correct	Shown
Marks	Show mark and max
Decimal places in grades	2
Specific feedback	Shown
General feedback	Shown
Right answer	Shown
Response history	Not shown