

“Quizzes” in MCMoodle

Quiz Module

The **Quiz** activity module allows the teacher to design and set quizzes and tests consisting of a large variety of Question types, including multiple choice, true-false, and short answer questions. These questions are kept in the Question bank and can be re-used in multiple quizzes. Quizzes/Tests can be configured to allow multiple attempts. Each attempt is automatically marked, and the teacher can choose whether to give feedback and/or show the correct answers. Throughout this next lesson, the activity will be referenced as a “quiz.” However, you are able to create tests in the same way.

Features

In general, quizzes help determine what students have learned. A well-designed test can give critical information about a student’s understanding of the material.

Feedback about performance and self-assessment are important parts of a learning environment. There are several ways to give feedback to students: on each question or overall. The quiz module can display feedback and scores at different times during the quiz, using the review options.

A wide variety of Quiz reports (in addition to Grades) are available. Quiz reports not only can focus on a single student’s attempt to answer each question, but also can perform a robust analysis of a question’s validity based upon aggregated student responses.

Moodle’s quiz module has a large number of options and tools. For example, quizzes with different question types can be randomly generated from categories of questions. Students can be allowed repeated attempts at a question; they can also be allowed to retake a quiz multiple times.

There are different options for scoring (marks-grades) individual questions in a specific quiz, grading attempts for a quiz and each question type.

Further, different display methods can even make the same quiz appear different each time. This can be done by customizing the viewed format (by manually setting the page breaks) or by setting the number of questions per page. Questions can be shuffled in regards to presentation order. Yes, it can be made to look and act like a paper test.

When the computer does the work for you, it’s easy to give students a chance to practice taking a test, or to give frequent small quizzes. You can explore how to apply these advantages on the Effective quiz practices page.

Quiz module index page

The quiz module index page lists all the quiz activities in the course, organized under four headings:

1. **Topic** - the number of the block, in which the given quiz appears
2. **Name** - the name of the quiz
3. **Quiz closes** - the date after which the quiz will be closed
4. **Attempts** - if there have been any attempts at the quiz, you will see the text ‘View reports for x attempts (y Students)’, ‘x’ being the number of attempts and ‘y’ the number of students attempting at the quiz. Otherwise, the field will be empty.

Multiple Choice Question Type

In a multiple choice question, the student is given a question and a list of answers. In a Lesson, the answer list will be shuffled every time the question is view by a student. In a multiple choice question, the student selects one answer.

From MoodleDocs

Moodle provides teachers with a lot of flexibility when creating this common question type. You can create single-answer and multiple-answer questions, include pictures, sound or other media in the question and/or answer options (by inserting HTML) and weight individual answers. Remember that Lesson module questions behave differently. There are two types of multiple choice questions - single answer and multiple answer.

Single-answer questions

These questions allow one and only one answer to be chosen by providing radio buttons next to the answers. You will specify non-negative marks for each answer, usually zero marks for wrong answers, maximum marks for correct answers and partial marks for partially correct answers.

Multiple-answer questions

The teacher can select “multiple answers are allowed” in a Multiple Choice question type. “Multiple answers” questions types in a quiz allow one or more answers to be chosen by providing check boxes next to the answers. Each answer may carry a positive or negative grade, so that choosing ALL the options will not necessarily result in good grade. If the total grade is negative then the total grade for this question will be zero.

Feedback can be associated either with specific answers, or with the question as a whole.

Question set-up

1. Select the question category
2. Give the question a descriptive name. You’ll use the name to track your questions later so “Question 1” isn’t a good idea. The name will be used in the question lists on the quiz editing page or in the lesson as a page title. It will not be shown to the students, so you can choose any name that makes sense to you and possibly other teachers.
3. Create the question text. If you’re using the HTML Editor, you can format the question just like a word processing document.
4. Select an image to display if you want to add a picture to the question. The available images are those you have uploaded to the **main** Moodle files area (they cannot be in folders). For the student, the image appears immediately after the question text and before the answer options.
 - Alternatively, if you used the HTML editor to create the question text, you can click the image icon. This will pop up the Insert Image window. You can choose to upload

an image into your files area from this window, or you can add the URL of an image on the web. If you add a file to your files area, click the name of the file after you upload it to insert the link into the URL text entry at the top of the screen. Then click OK.

5. Set the ‘default question grade’ (i.e. the maximum number of marks for this question).
6. Set the ‘Penalty factor’ (see Penalty factor below).
7. If you wish, add general feedback. This is text that appears to the student after he/she has answered the question.
8. Choose whether students can only select one answer or multiple answers
9. Choose whether to shuffle the answer options
10. Write your first answer in the Choice 1 text field. Inserting HTML into this area also makes it possible to add an image or a sound file.
11. Select a grade percentage for the answer. This is the percentage of the total points for the question that selecting this response is worth. You can select negative percentages as well as positive percentages. So, selecting a correct response in a multiple answer question may give you 50% of the possible points, while selecting a wrong answer may take away 10%. Note that in a multiple-answer question, the grades must add up to 100%.
12. If you wish, you can add feedback for each response. It may be a bit more work, but it’s good practice to tell the students why each answer is right or wrong using the feedback area. If students know why an answer is right or wrong, they can analyze their own thinking and begin to understand why an answer is correct. Your feedback will only be displayed if you select Show Feedback in the quiz body options.
13. Fill in the rest of the response choices in the rest of the form. Any unused areas will be ignored.
14. Fill in the overall feedback fields if you wish.
15. Select the “Save Changes” button at the bottom of the screen.

Penalty factor

The ‘penalty factor’ only applies when the question is used in a quiz using adaptive mode - i.e. where the student is allowed multiple attempts at a question even within the same attempt at the quiz. If the penalty factor is more than 0, then the student will lose that proportion of the **maximum** grade upon each successive attempt. For example, if the default question grade is 10, and the penalty factor is 0.2, then each successive attempt after the first one will incur a penalty of $0.2 \times 10 = 2$ points.

General feedback

General feedback is some text that gets shown to the student after they have attempted the question. Unlike feedback, which depends on the question type and what response the student gave, the same general feedback text is shown to all students.

You can control when general feedback is shown to students using the “Students may review”: checkboxes on the quiz editing form.

You can use the general feedback to give students some background to what knowledge the question was testing. Or to give them a link to more information they can use if they did not understand the questions.

Overall feedback

The option *overall feedback* for correct/partially correct/incorrect responses is particularly useful for multiple-response questions, where it is difficult to control what feedback students see just using the answer-specific feedback.

So, when the student submits the question, they will see the answer-specific feedback next to the option(s) they selected, the overall feedback in a box below the options, and if applicable, the general feedback underneath everything else.

True/False Question Type

From MoodleDocs

The True/False question type is a special case of the multiple choice question. The student is prompted to choose which is the correct option.

A student is given only two choices for an answer in this kind of question: True or False. The question content can include an image or html code.

When feedback is enabled, the appropriate feedback message is shown to the student after the answer. For example, if the correct answer is “False”, but they answer “True” (getting it wrong) then the “True” feedback is shown.

Note that the True/False question type in a Lesson module is quite different. It is effectively the same as the Multiple Choice question type in a Lesson, but with only 2 responses. See `Lesson_module#Multiple_choice`.

Question set-up

1. Select the question category
2. Give the question a descriptive name - this allows you to identify it in the question bank.
3. Enter a question in the ‘question text’ field.
4. Select an image to display if you want to add a picture to the question. For the student, it appears immediately after the question text and before the choices.
5. Set the ‘default question grade’ (i.e. the maximum number of marks for this question).
6. Set the ‘Penalty factor’ (see Penalty factor below).
7. If you wish, add general feedback. This is text that appears to the student after he/she has answered the question.
8. Select the correct answer - true or false.
9. Finally, provide feedback for each of the answers ‘true’ and ‘false’.
10. Click ‘Save changes’ to add the question to the category.

Penalty factor

The ‘penalty factor’ only applies when the question is used in a quiz using adaptive mode - i.e. where the student is allowed multiple attempts at a question even within the same attempt at the quiz. If the penalty factor is more than 0, then the student will lose that proportion of the **maximum** grade upon each successive attempt. For example, if the default question grade is 10, and the penalty factor is 0.2, then each successive attempt after the first one will incur a penalty of $0.2 \times 10 = 2$ points.

Matching Question Type

Matching questions have a content area and a list of names or statements which must be correctly matched against another list of names or statements. For example “Match the Capital with the Country” with the two lists “Canada, Italy, Japan” and “Ottawa, Rome, Tokyo”. In the Quiz Module, each match is equally weighted to contribute towards the grade for the total question.

Question set-up in Question bank

1. Select the question category
2. Give the question a descriptive name - this allows you to identify it in the question bank.
3. Enter a question stem in the ‘question text’ field to tell the students what they are matching.
4. Select an image to display if you want to add a picture to the question. For the student, it appear immediately after the question text and before the choices.
5. Set the ‘default question grade’ (i.e. the maximum number of marks for this question).
6. Set the ‘Penalty factor’ (see grading below).
7. If you wish, add general feedback. This is text that appears to the student after he/she has answered the question.
8. Check the ‘shuffle’ box if you want the answers in the drop-down menus to be shuffled. Note: The Quiz display setting must also be set to shuffle within a questions for this to work.
9. For the first matching item, enter the question and a matching answer.
10. Fill in *at least* three questions and answers. You can enter as many as 10 items (or more - see ‘See also’ below). You can provide extra wrong answers by giving an answer with a blank question.
11. Click Save changes to add the question to the category.

Grading

- Each sub-question is equally weighted to contribute towards the grade for the total question. For example a student who correctly matches 3 of the 4 possible matches will receive 3/4 or 75% of the total possible score for that question.
- The ‘penalty factor’ only applies when the question is used in a quiz using adaptive mode - i.e. where the student is allowed multiple attempts at a question even within the same attempt at the quiz. If the penalty factor is more than 0, then the student will lose that proportion of the **maximum** grade upon each successive attempt. For example, if the default question grade is 10, and the penalty factor is 0.2, then each successive attempt after the first one will incur a penalty of $0.2 \times 10 = 2$ points.

Repeated entries

It is possible to have repeated entries in one of the lists but care should be taken to make the repeats identical. For example “Identify the type of these creatures” with the lists “Ant, Cow, Dog, Sparrow” and “Insect, Mammal, Mammal, Bird”.

Ordered questions

In the Quiz module, it is possible for both the question list and the answer list to be shuffled. The answer list is always shuffled. The “shuffle within questions” must be “Yes” as a quiz setting under Display AND the shuffle question box must be checked on the individual question.

Consider the question “Match the letter with its position in the alphabet” with the question list “1, 2, 3, 4” and answer list “A, B, C, D”. The answer list is always shuffled for each student in the pull down list of the possible matches. However, only when both the quiz and individual question shuffles are turned on, will the question list be shuffled to something like “2,4,1,3”.

Version differences

- From Moodle 1.7 onwards, there can be more answers than questions. This makes it harder for the student if they do not know the right match. The extra answers are added by leaving the question field blank.

Quiz Tips and Tricks

What to do after a quiz

It is a good practice to review the quiz after it has been given. Students may challenge a question, or ask about the meaning of a question during or after a quiz. After viewing student attempt scores, the result tab will assist the teacher in looking at questions answered by the class, changing scores for specific answers and re-grading the quiz.

The Item Analysis link, on the **Results** tab, can assist the teacher in finding questions in the test that should be reviewed. Sorting on the **Correct Facility** will allow the teacher to quickly see the questions that were most missed or answered correctly. A question where every student missed it, could mean the teacher tagged the wrong answer as correct or made a typing error in the evaluation of the answer. Unintentional trick questions can often be found by sorting by the “Disc” columns. This might reveal where the worst quiz takers answered the question better than the best quiz takers. The item analysis might also reveal the material which was not presented well or perhaps not covered.

The analysis can also point out correct answers to short answer questions that were not included as a potential when the question was created. Teachers can even look for common misspellings in the correct response and, depending on his or her policy, can award partial or full credit to students for the misspelled response.

Questions needing correction can be edited by clicking on the question ID number on the item analysis page. While questions can be edited as students are taking the Quiz, it is not recommended. Understand what question you are editing. For example is it used in other courses or again in another Quiz in the same course? Do you want the edited question to be used in the future?

Clicking on re-grade link, on the results tab, will immediately update the scores for all students on all questions for that one specific quiz. **Do not** use the re-grade link if students are taking the quiz. Be sure you want to recalculate the quiz. You can re-grade the quiz as many times as you want.

This method ensures fairness in scoring on the current quiz and future quizzes while it minimizes the need for “Make comment or override grade” in the individual overview of a student’s attempt.

Re-grade is found on the Results Tab of a Quiz. Re-grade is used to force Moodle to recalculate points awarded for correct and incorrect responses to quiz questions after the quiz has been taken by students. It is used when the teacher changes a score or evaluation of a question after the Quiz has been completed by one or more students.