

Introduction to Moodle: Lesson 5

Quizzes

Moodle gives you the option of assigning online quizzes for your students. A variety of question types are available¹.

- 1. Multiple Choice:** There are two types of multiple choice questions:
 - **Single answer:** The usual type of multiple choice, in which only one of the potential answers is correct
 - **Multiple answers:** The students can choose as many answers as they think are correct. Each answer may carry a positive or negative grade, so that choosing ALL the options will not necessarily result in good grade
- 2. Short Answer:** The students answer the question with a word or short phrase. You can supply several possible answers, each with a different grade. You can use a wildcard to specify possible answers that have the same stem. For example, bacter* would count bacteria, bacterium, and bacterial as correct answers.
- 3. Numerical:** Like short answer questions, except that the answer is a number. You can select the allowable precision for a correct answer. You can supply different answers, or the same answer with different precisions, each with a different grade.
- 4. True/False:** Not much to say about this one
- 5. Matching:** After an optional introduction, the students are presented with several sub-questions and several jumbled answers. There is one correct answer for each question. The students must select an answer to match each sub-question. Each sub-question is equally weighted to contribute towards the grade for the total question
- 6. Random Short Answer Matching:** Like matching questions, except that the questions and answers are randomly drawn from the pool of "Short Answer" questions in the current category. Each attempt on a quiz may therefore have different questions and answers.
- 7. Calculated:** The question supplies students with one or more input parameters and asks them to calculate a result. You can define a dataset of sensible input parameters. You can specify an allowable number of significant figures or decimal places in the answer.

For all question types you have the option of providing feedback as well as a grade when students submit answers to questions. The feedback can be text or images.

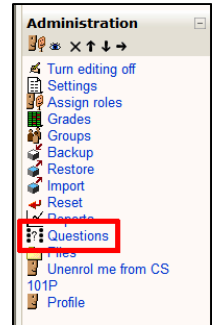
There are four steps necessary for creating quizzes:

- **Create a bank of questions** for the quizzes. This must be done only once, unless you want to add to the questions later.
- **Add a quizzes category to the Moodle gradebook.** This must be done only once.
- **Define the quiz.** This must be done for each quiz.
- **Add questions** from the question bank to the quiz. This must be done for each quiz.

¹ The descriptions of the question types are paraphrased from the Moodle Help files.

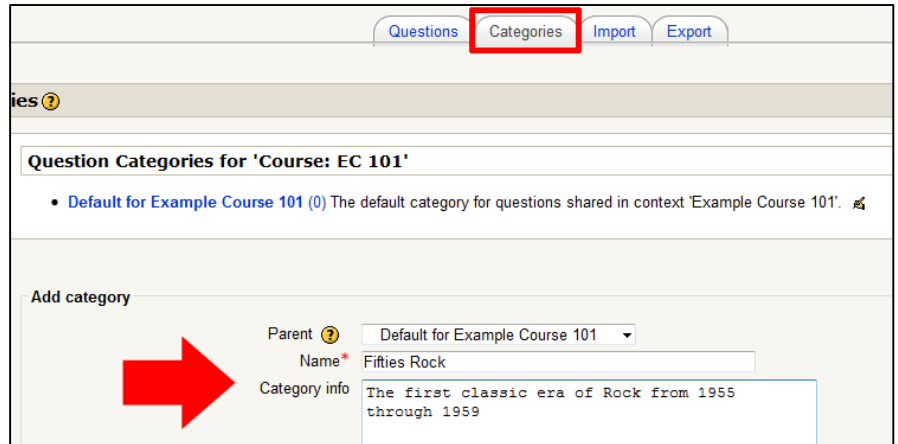
Creating a Question Bank: Question Categories

The questions you create for quizzes go in a Question Bank. To reach the Question Bank, click on **Questions** in the **Administration** menu on the left side of the page.

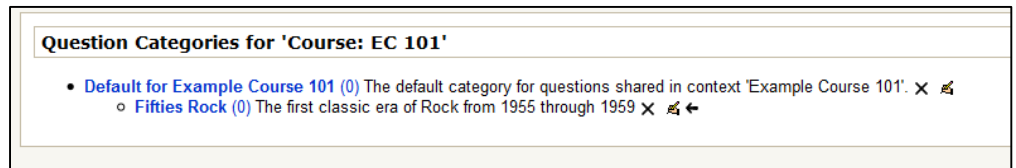


It is a good idea to organize your questions by placing them in categories. To define a question category, click on the **Categories** tab. You can add a category by naming it and, if you like, describing it.

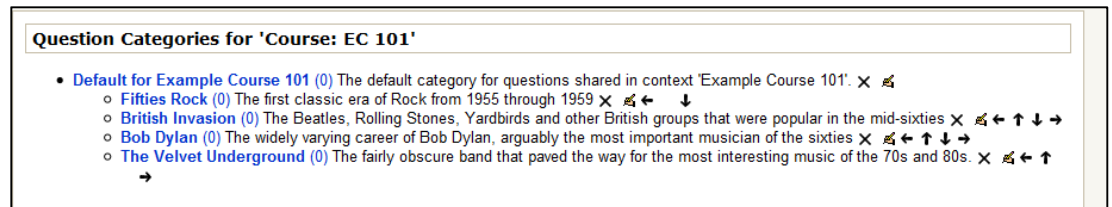
Click on **Add Category** when you are finished.



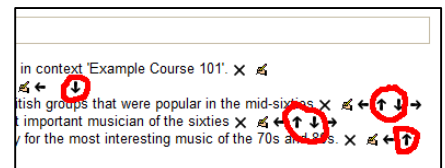
You should see the new category listed as a “child” of the Example Course category.



Define a few more categories.



Note that you can move the categories around by clicking on the arrows in the editing icon row.



You can define subcategories by specifying that one of the categories is the parent,

Creating a Question Bank: The Questions

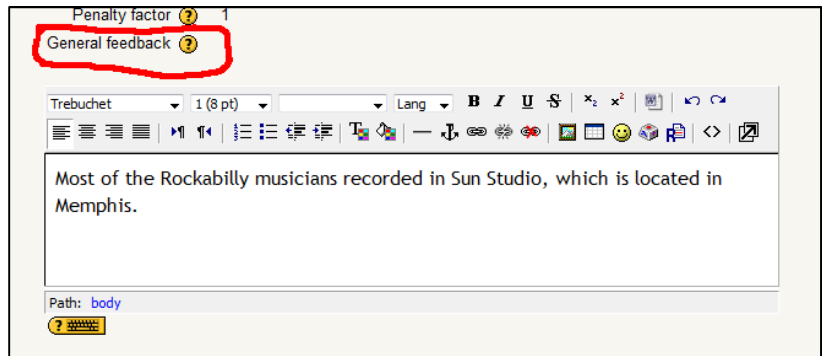
Select the **Questions** tab and choose a category for your questions – in this example, “Fifties Rock.”

As an example, choose a **True/False** question.

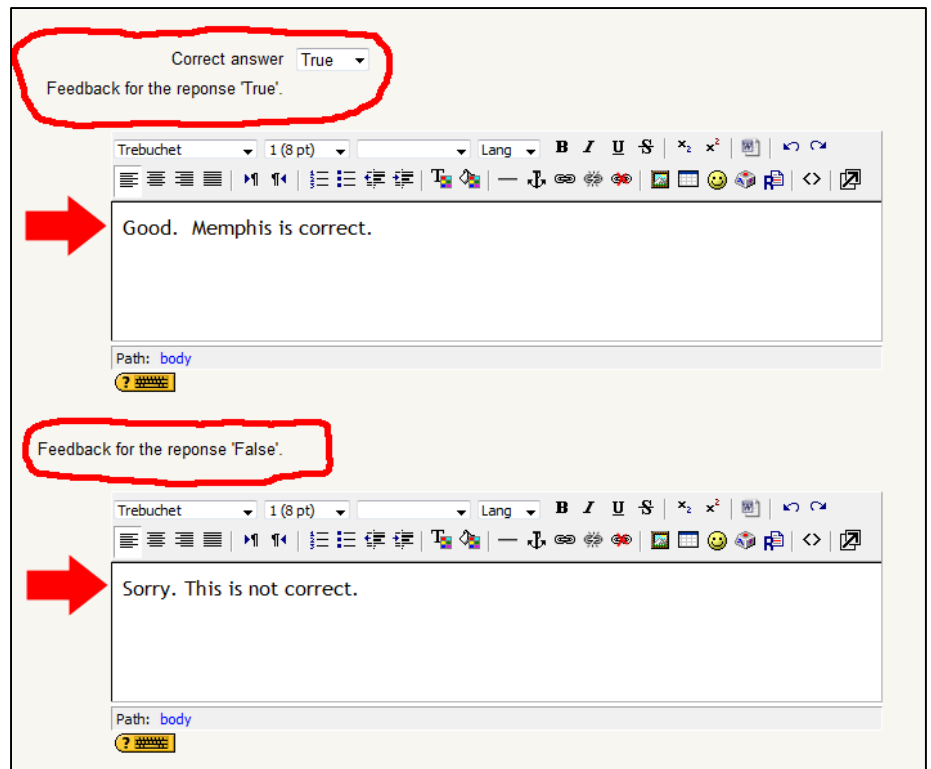
Setting up a question for a quiz can be confusing because there are so many options. Although your input will differ for different types of questions, there is a lot of similarity among them. The following explanation should help.

First, you will need to enter the **question name** and the **question text**.

Below the text question section is another section in which you can enter **general feedback**. The general feedback will always be displayed after students have answered a question, no matter if their answer is correct or incorrect.

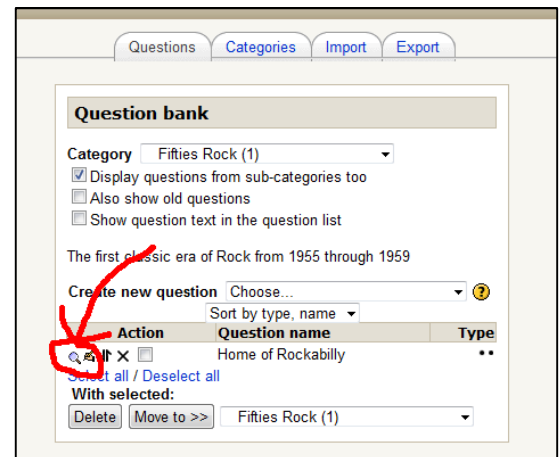


Next, you can enter the **correct answer** and the **specific feedback** for both correct and incorrect responses.



When you have entered the information, click on **Save Changes** at the bottom.

You should see the question in the question bank.



Clicking on the **Magnifying Glass icon** also will allow you to **preview and test a question**.

In the preview, you can answer the question and see what the students will see.

Preview Home of Rockabilly

1 Memphis is generally thought of as the home of Rockabilly in the Fifties

Marks: 1/1

Answer: True False

Good. Memphis is correct.

Most of the Rockabilly musicians recorded in Sun Studio, which is located in Memphis.

Correct

Marks for this submission: 1/1.

Add a few more questions to the bank.

Question bank

Category:

Display questions from sub-categories too

Also show old questions

Show question text in the question list

The first classic era of Rock from 1955 through 1959

Create new question:

Sort by type, name

Action	Question name	Type
	Chess Records	**
	Home of Rockabilly	**
	Johnny B. Goode	**
	Only Eyes for You	**
	The Killer	**

[Select all / Deselect all](#)

With selected:

Adding a Quizzes Category to the Gradebook

Next we need to add a **Quizzes category** to the Moodle gradebook. This is done in the same manner as we added discussions and exams in the previous lessons. In this example, we will give quizzes a weight of 10.²

Grade category

Category name*

Aggregation

Aggregate only non-empty grades*

Aggregate including subcategories*

Drop the lowest*

Parent category

Grade category

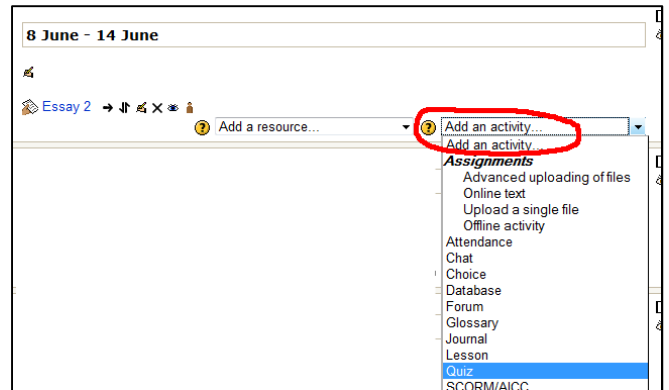
Item weight

My report preferences

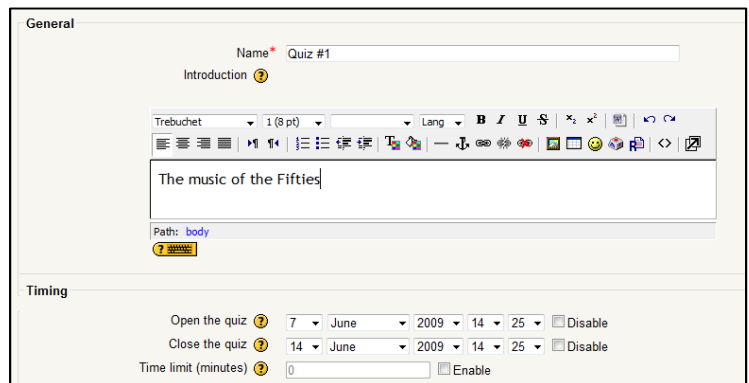
² Remember that in this example, we are grading four types of activities: exams (40%), written assignments (30%), online discussions (20%), and online quizzes (10%).

Creating an Online Quiz

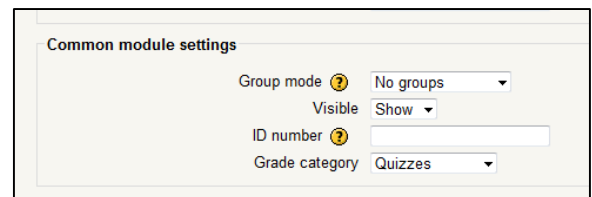
Now we will create the first online quiz. Choose **Quiz** under **Add an activity**.



After entering the **name** of the quiz and an **introduction** to the quiz, you will have several options to choose from, for example the dates and times during which the quiz will be available to students.



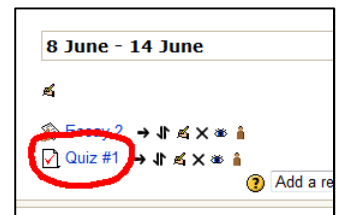
Choose **Quizzes** as the Grade category.



If you do not understand any of the options, click on the question mark  to see a description of the option.³ Click on **Save and return to course** when you are ready.

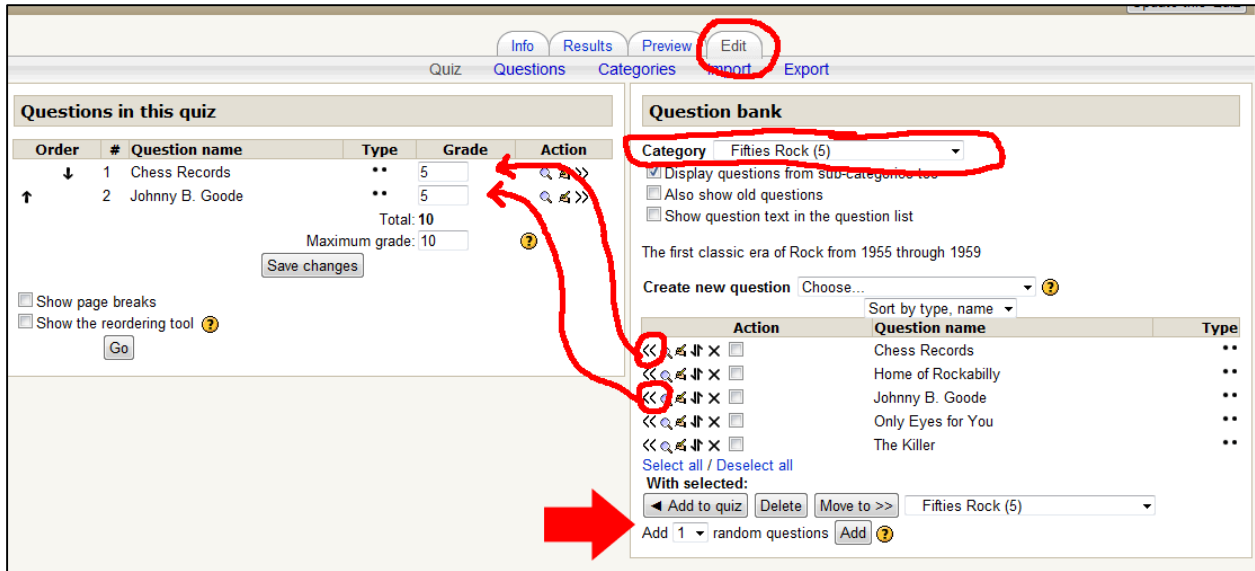
You now should see a link to the quiz on the course HomePage.


Our last task is to choose questions for the quiz. Click on the name of the quiz to do this.



³ The options are discussed in more detail in Appendix A

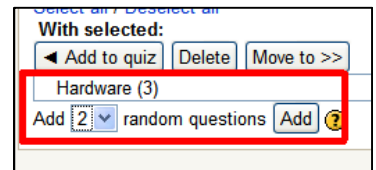
To add questions to the quiz, click on the **Edit** tab and choose a **Category** for the first quiz question from the Question Bank.



You can add individual questions to a quiz by clicking on the  icon by the question.

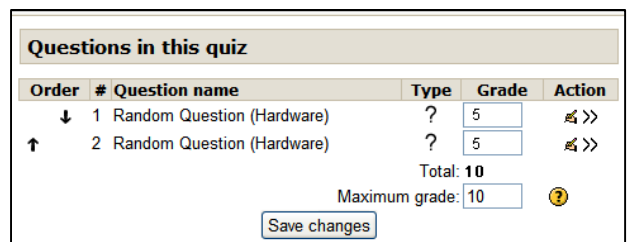
You can add multiple questions by clicking their checkbox to select them and clicking on **Add to quiz**.

Finally, you can add random questions from a category. For example to add two random questions to the quiz, select **2 random questions** and click on **Add**.

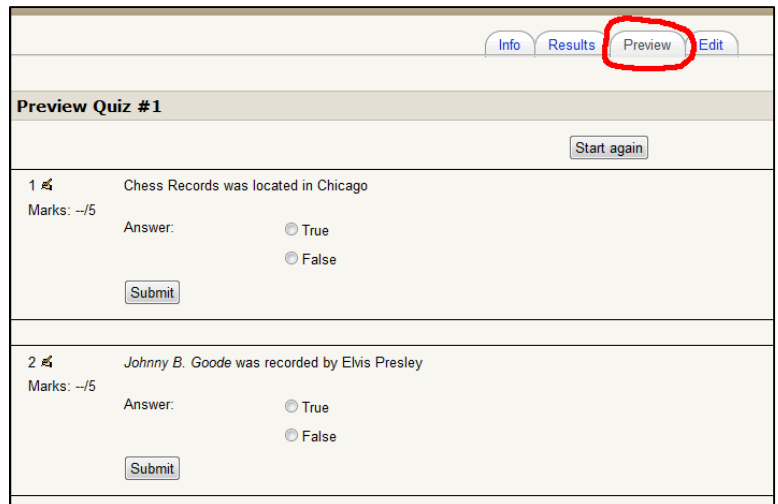


For example, if you choose two random questions, in editing mode the quiz will look like the right.

You can choose the grade for each question and the maximum grade for the quiz.

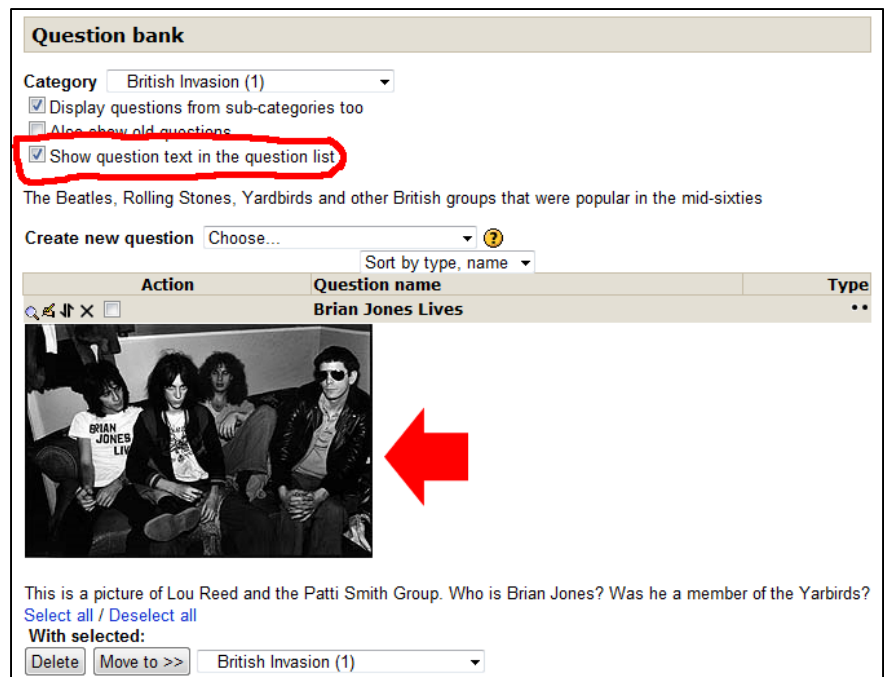


You can preview the quiz by clicking on the **Preview** tab.



It frequently is helpful to check the **Show question text in question list** box, so you will see the questions along with their names.

Note that quiz questions can include pictures as well as text.



Create another online quiz while you are at it.

Note: What happens when a student takes a quiz is described in *Lesson 7: A Student's and a Professor's View*

Appendix A: Creating an Online Quiz Options

The number of options offered by Moodle for creating online quizzes can be a bit overwhelming. I have tried to supply more detailed information on some options below.

Questions per page: If you are writing a long quiz, it may be useful to break it up by displaying only one or two questions per page.

Shuffle questions: If you choose “Yes,” different students will see the questions in a different order on the page. (This is not related to random questions.)

Shuffle within questions: If you choose “Yes,” the answers on multiple choice and matching questions will be displayed in a different order for different students.

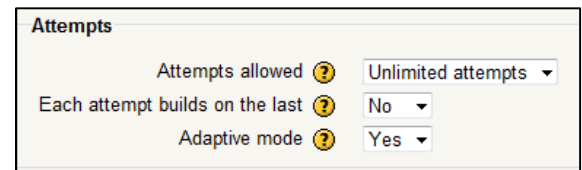


The screenshot shows the 'Display' section of Moodle quiz settings. It includes three options: 'Questions per page' set to 'Unlimited', 'Shuffle questions' set to 'No', and 'Shuffle within questions' set to 'Yes'. Each option has a help icon (question mark) to its left.

Attempts allowed: you can specify how many times a student can try a quiz.

Each attempt builds on the last: matters if you allow multiple attempts at a quiz. If this setting is “Yes,” the students will see the answers from the previous attempt when they make another attempt at a quiz.

Adaptive mode: “If you choose ‘Yes’ for this option then the student will be allowed multiple responses to a question even within the same attempt at the quiz. So for example if the student's response is marked as incorrect the student will be allowed to try again immediately. However a penalty will usually be subtracted from the students score for each wrong attempt (the amount of penalty is determined by the penalty factor, set by the next option).”⁴ *There is more to this. Click on the question mark by the question to see it.*

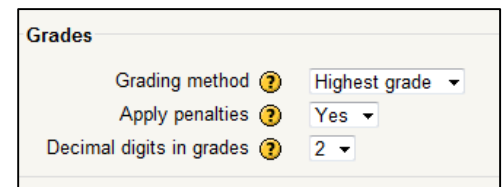


The screenshot shows the 'Attempts' section of Moodle quiz settings. It includes three options: 'Attempts allowed' set to 'Unlimited attempts', 'Each attempt builds on the last' set to 'No', and 'Adaptive mode' set to 'Yes'. Each option has a help icon (question mark) to its left.

Grading method: When multiple attempts are allowed, you can assign the final grade in different ways: the highest grade, the average grade, the grade on their first attempt, or their grade on their last attempt

Apply penalties: If you allow multiple attempts and choose the adaptive mode (see above) then you can apply penalties for an incorrect answer. The amount of the penalty for each question is chosen when you create the question for the Question Bank.

Decimal digits in grades: Specifies how many decimal places the students will see in their grade. This setting has no effect on the number of decimal places that Moodle uses to average grades.



The screenshot shows the 'Grades' section of Moodle quiz settings. It includes three options: 'Grading method' set to 'Highest grade', 'Apply penalties' set to 'Yes', and 'Decimal digits in grades' set to '2'. Each option has a help icon (question mark) to its left.

⁴ From the Moodle Docs

Review options ?		
Immediately after the attempt	Later, while the quiz is still open	After the quiz is closed
<input checked="" type="checkbox"/> Responses	<input checked="" type="checkbox"/> Responses	<input checked="" type="checkbox"/> Responses
<input checked="" type="checkbox"/> Answers	<input checked="" type="checkbox"/> Answers	<input checked="" type="checkbox"/> Answers
<input checked="" type="checkbox"/> Feedback	<input checked="" type="checkbox"/> Feedback	<input checked="" type="checkbox"/> Feedback
<input checked="" type="checkbox"/> General feedback	<input checked="" type="checkbox"/> General feedback	<input checked="" type="checkbox"/> General feedback
<input checked="" type="checkbox"/> Scores	<input checked="" type="checkbox"/> Scores	<input checked="" type="checkbox"/> Scores
<input checked="" type="checkbox"/> Overall feedback	<input checked="" type="checkbox"/> Overall feedback	<input type="checkbox"/> Overall feedback

Review options: “These options control what information users can see when they review a quiz attempt or look at the quiz reports.

- **Immediately after the attempt** means within two minutes of the attempt being finished by the user clicking 'Submit all and finish.'
- **Later, while the quiz is still open** means after this, and before the quiz close date.
- **After the quiz is closed** means after the quiz close date has passed. If the quiz does not have a close date, this state is never reached.”

Showing a quiz in a “secure” window: restricts some of the things students can do with their browsers. *I have heard bad things about this option, so exercise care.*

Security	
Show quiz in a "secure" window ?	No ▾
Require password ?	<input type="text"/>
Require network address ?	<input type="text"/>

Require password: requires students to know the password you supply in the text box to answer the question.

Require network address: If you enter a full or a partial IP address here, only computers from the specified VLAN may take the quiz. This is useful for a proctored quiz in one classroom.

Group mode: allows you to specify if you are using groups.

ID Number: a number you select for the question of you are going to set up a calculation of the grade for the quiz.

Grade category: We have covered this.

Common module settings	
Group mode ?	No groups ▾
Visible	Show ▾
ID number ?	<input type="text"/>
Grade category	Quizzes ▾

Overall feedback: This allows you to give feedback on the entire quiz that depends on how well a student did.

The grade boundaries (e.g., 100%, 80%, 60%, etc.) are the break points between the different feedback comments.

Overall feedback ?	
Grade boundary	100%
Feedback	<input type="text"/>
Grade boundary	<input type="text"/>
Feedback	<input type="text"/>
Grade boundary	<input type="text"/>
Feedback	<input type="text"/>
Grade boundary	<input type="text"/>
Feedback	<input type="text"/>
Grade boundary	<input type="text"/>
Feedback	<input type="text"/>
Grade boundary	0%
<input type="button" value="Add 3 more feedback fields"/>	