BUILDING YOUR COURSE WITH MOODLE
TRAINING MANUAL LEVEL IV: QUIZZES & GRADEBOOK
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Creating quizzes within Moodle is a two step process.

1. Create the quiz “shell” and adjust the settings.

2. Create questions, organized into categories

OR

Add questions already saved within your questions bank.

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**Step 1: Create a Quiz Shell and Adjust Settings**

When you create the quiz shell, you are creating a container for the questions and setting the rules for interacting with the quiz.

- From the homepage, select **Turn Editing On**.

- Scroll to the section of the course where you want to add the quiz. From the **Add an Activity** drop-down list, select **Quiz**.
The General Area

- In the Name text box, type a unique name for the quiz. This is the quiz name that will appear as a link on your course frontpage.

- In the Introduction text box, type an introduction for the quiz. You can include any special instructions for taking the quiz or special scoring rules.

Name: **Demo Quiz**

Introduction: **This quiz covers chapters 3-6. You will have 60 minutes to complete the quiz. You can take this quiz at any time during the week that it is available.**

The Timing Area

*Configure the timing elements of the quiz.*

- In the Open the quiz drop-down boxes, select the start date and time for the quiz. You must first click the boxes next to the word Disable.
  - Students will be able to see the title and the instructions, but will not be able to take the quiz until after this date.
  - You can always use the eye to make a quiz invisible to students.

- In the Close the quiz drop-down boxes, select the end date and time for the quiz.
• In the **Time limit (minutes)** text box, type the number of minutes that students will have to complete the quiz once they have begun. The **Time Limit** prevents students from choosing not to finish the quiz in one sitting.

You must click the **Enable** box and then enter a time in minutes (e.g. 60= 1 hour, 100= 1 hour and 40 minutes).

By default the field is disabled, which allows the student as much time as is needed.

• In the **Time delay between first and second attempt** drop-down list, specify how long students must wait before taking the quiz again. Although you may allow students several attempts, this setting is just for the first and second attempt.

• In the **Time delay between later attempts** drop-down list, specify how long students must wait before taking the third or later attempt.

The time delay function prohibits students from taking a quiz for a second or third (etc) time for the amount of time you specify. **This is not necessary if the student is only allowed one attempt.**

**The Display Area**

*Choose how many questions to display per page.*

![Display](image)

**Questions per page**

• Set the number of questions the students will see at once.
  
  o **Ten to Fifteen (10-15)** maximum per page is recommended otherwise students may lose work if they lose their connection. For longer quizzes, you should stretch the quiz over several pages to limit the number of questions per page.

• If you have more questions than you specify in the drop-down list, students will see a navigation button at the bottom of the page where they can view the questions on the other pages.
Shuffle questions

Specify to randomly order the quiz questions when they are displayed to the students.

- If you enable this option, then the order of questions in the quiz will be randomly shuffled each time a student attempts the quiz.
  - This is not related to the use of Random questions, this is only about the displayed order of questions.
  - The intention is to make it a little harder for students to copy from each other.

Shuffle within questions

- If you enable this option, then the parts making up the individual questions will be randomly shuffled each time a student starts an attempt at this quiz, provided the option is also enabled in the question settings (which it is by default).
  - This only applies to questions that have multiple parts, such as multiple choice or matching questions.

If you have any "all of the above" or "none of the above" questions and enable Shuffle within questions, it is recommended those questions are rewritten to say "all of these options" or "none of these options."

The Attempts Area

Determine how many quiz attempts will be allowed.

Attempts allowed

- Select the number of times students can take the quiz.
- Students may be allowed to have Unlimited attempts or a specified number from 1 to 6.
Each attempt builds on the last

If multiple attempts are allowed and this setting is set to **Yes**, then each new attempt contains the results of the previous attempt.

To show a fresh quiz on every attempt, select **No** for this setting.

Adaptive mode

This feature appears when you create a quiz and edit its **attempts settings**.

**Adaptive Mode** allows students to make multiple attempts answering a question, even if only one attempt is allowed.

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.

**Example:** If the student's response is marked as incorrect the student will be allowed to submit a response multiple times to a question even though they have not started a new quiz attempt. However a penalty will be subtracted from the students score for each wrong attempt (the amount of penalty is determined by the penalty factor).

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Grades Area

**Configure the grading method for the quiz**

The **Grading method** drop-down list enables you to choose which score is recorded when multiple attempts of a quiz are enabled.

**Highest grade**
The final grade is the highest (best) grade in any attempt.

**Average grade**
The final grade is the average (simple mean) grade of all attempts.

**First grade**
The final grade is the grade gained on the first attempt (other attempts are ignored).
Last grade
The final grade is the grade gained on the most recent attempt only.

The Apply penalties drop down list is used if you are running your quiz in adaptive mode. You can impose a penalty for each wrong response to be subtracted from the final score for the question. It will take points off for missing a question on the first attempt.

The Decimal digits in grades drop-down list enables you to specify the number of decimal places in the student’s score (e.g., 89.98% versus 90%).

The Review Options Area

Select conditions for automatic review access to the quiz.

Review options

<table>
<thead>
<tr>
<th>Immediately after the attempt</th>
<th>Later, while the quiz is still open</th>
<th>After the quiz is closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responses</td>
<td>Responses</td>
<td>Responses</td>
</tr>
<tr>
<td>Answers</td>
<td>Answers</td>
<td>Answers</td>
</tr>
<tr>
<td>Feedback</td>
<td>Feedback</td>
<td>Feedback</td>
</tr>
<tr>
<td>General feedback</td>
<td>General feedback</td>
<td>General feedback</td>
</tr>
<tr>
<td>Scores</td>
<td>Scores</td>
<td>Scores</td>
</tr>
<tr>
<td>Overall feedback</td>
<td>Overall feedback</td>
<td>Overall feedback</td>
</tr>
</tbody>
</table>

These options control what information students 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 student clicking 'Submit all and finish'.

Later, while the quiz is still open means before the quiz close date.

After the quiz is closed means after the quiz close date and time have passed. If the quiz does not have a close date, this state is never reached.

The Security Area

Browser security
This option offers various ways to try to restrict how students may try to 'cheat' while attempting a quiz. Showing the quiz in a secure window presents the quiz in a window with no back button and other options.
**None**
No impediments are put in the way of students attempting the quiz.

**Full screen pop-up with some JavaScript security**
There is a limit to what the quiz that runs on a web server can do to restrict what the student sitting at their computer can do while attempting the quiz. However, this option does what is possible:

- The quiz will only start if the student has a JavaScript-enabled web-browser.
- The quiz appears in a full screen popup window that covers all the other windows and has no navigation controls.
- The students are prevented, as far as is possible, from using facilities like copy and paste.

**Require password**

*Decide whether you want to require a password for the quiz.*

**This field is optional.**

If you specify a password in here then participants must enter the same password before they are allowed to make an attempt on the quiz.

**Require network address**

*Configure whether you want to require all students to be at the same network address.*

**This field is optional.**

You can restrict access for a quiz to particular subnets on the LAN or Internet by specifying a comma-separated list of partial or full IP address numbers.

This is especially useful for a proctored quiz, where you want to be sure that only people in a certain room are able to access the quiz.

**For example:** 192.168., 231.54.211.0/20, 231.3.56.211, 231.3.56.10-20
The Common Module Settings Area

The **Group mode** drop down list enables you to set the group mode for the quiz.

The group mode can be one of three levels:

* No groups - there are no sub groups, everyone is part of one big community
* Separate groups - each group can only see their own group, others are invisible
* Visible groups - each group works in their own group, but can also see other groups

The **Visible** drop down list enables you to set whether or not students see the quiz.

Checking show is the same as opening the eye and making the quiz available to students.

The **ID number** text box 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.

The **Grade category** drop-down list enables instructors to place the quiz into a gradebook category.

You must create the category before creating the quiz.
**Overall Feedback Area**

The **Grade boundary** and **Feedback** text boxes work together. This is text that students will see when they have completed a quiz attempt.

The first **Grade boundary** is set to 100% by default and you can type the message you want students to see in the **Feedback** text box directly below it.

The second **Grade boundary** text box is empty so you can decide what grade you want for the second feedback text, if any.

Click **Add 3 more feedback fields** if you need extra **Grade boundary** and **Feedback** text boxes.

*Empty text boxes will not be displayed to students.*

**Save the Quiz**

You have two ways to save the quiz:

Save and return to course saves the quiz shell and return you to the main course screen.

Save and display saves the quiz shell and displays the Editing quiz screen.
Step 2: Create Quiz Questions

Questions can be created within Moodle from the Question Bank, organized into Categories and added to the Quiz Shell.

You can create multiple-choice, short-answer, numerical, matching, random short-answer, matching, description, calculated, essay and embedded answers (Cloze) questions. Each question type has its own form and options.

Open the Question Bank

- On the main course screen, in the Administration block, click the Question link. The Question bank screen is displayed.

Create a Multiple Choice Question

- In the Question bank area, in the Create new question drop-down list, select Multiple Choice. The Adding a Multiple Choice Question screen is displayed.
The General Area

- In the Question Name text box, type a descriptive name for the question. The title will be used for tracking purposes, so a good name is important.

- In the Question text area, type the question.

- In the Image to display drop-down list, select an image for the question. This is optional.

- In the default question grade text box, type the number of points you will assign for a correct answer.

- The Penalty factor text box is used if you are running the quiz in adaptive mode. The penalty factor should be a number between 0 and 1.
  - A penalty factor of 1 means that the student has to get the answer right in his first response to get any credit at all.
  - A penalty factor of 0 means that students can try as often as they like and still get full credit.

- In the General feedback text box, type any message you want the students to see. This text will be displayed if you choose for students to review the quiz.

- In the One or multiple answers drop-down list, specify how many correct answers there are for this question.

- The Shuffle the choices check box will randomize the answers between students.

- In the Number of choices drop-down list, select how the answer choices should be labeled.
The Choice 1 – 5 Areas

- In the Choice 1 area, in the Answer text box, type an answer you want students to choose from.

- In the Grade drop-down list, select the percentage of the total points students will receive if they choose this answer.

- In the Feedback area, type the feedback you wish students to see for this response. Feedback will only be displayed if you enable students to review the quiz.

Repeat the steps in the Choice 2 – Choice 5 areas. If you need more choices, click Blanks for 3 More Choices.

The Overall Feedback Area

- In the Overall Feedback area, you can provide feedback for any correct, partially correct or incorrect answers.
- Click Save changes. The Edit screen is displayed.

### View the Question

- The question is added to the Question bank.

- Click the Preview icon to view the question.

- When you are done previewing the question, close the preview window.
Calculated questions enable you to create individual numerical questions by the use of wildcards that are substituted with random values when students take the quiz.
The Description Question Screen

- The Description question is a way to add information or a label in a quiz.
Add Questions to a Quiz

Once the quiz questions are created or uploaded and the quiz shell is created, you can add questions to the quiz body. You can add one question at a time or you can add multiple questions.

The Editing Quiz Screen

- The quiz you want to add questions to must be open and the Editing Quiz screen displayed.

Add a Question

- On the right side of the screen, in the Question bank area, select the check box of a question you want to add to the quiz.

You can select multiple questions.

- Click Add to quiz. A copy of the question is moved to the Questions in this quiz area.
Working with Questions

- You can move questions by using the **Move up** or **Move down** icons.

- In the **Grade** text box, you can change the number of points assigned for each question.

- If necessary, change the value in the **Maximum grade** text box. This the grade that all scores are scaled to.

- Click **Save changes**. The total score for the quiz is updated.

Preview the Quiz

- Click the Preview tab to see what the quiz will look like to students.
### Question 1
**What is the mascot for Louisiana Tech University?**

Choose one answer.

- 1. Saints
- 2. Bear
- 3. Tiger
- 4. Bulldog
- 5. Dolphins

**Mark 10**

### Question 2
**Reading is a process of critical thinking.**

**Mark 1**

Choose one answer.

- True
- False

### Question 3
**Louisiana Tech University school colors are purple and brown.**

**Mark 10**

Choose one answer.

- True
- False
Setting Up The Grade Book in Moodle

Grades in the Moodle 1.9.5 gradebook can be calculated, aggregated, and displayed in a variety of ways, and a variety of settings exist to meet a variety of grading strategies.

Understanding Aggregation strategies

Most of the aggregation types in the gradebook convert a grade to a percentage internally before applying weighting, calculating the category total, and using the category total to calculate the course total.

The different aggregation strategies allow you to choose the way category grades and a student’s overall course grade are calculated. Aggregation strategies can be applied to the overall course and/or to specific categories. Some common aggregation types include the following:

**Mean of grades** calculates the score as a percentage of each graded item; adds all the percentages for a category; and divides by the number of graded items.

<table>
<thead>
<tr>
<th>A1 70/100, A2 20/80, A3 10/10, category max 100:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0.7 + 0.25 + 1.0)/3 = 0.65 → 65/100</td>
</tr>
</tbody>
</table>

**Simple weighted mean** uses the maximum grade values to weight scores within a category rather than normalizing a grade to 100 percent before weighting. This aggregation type does not allow you to set a weight for items or the categories; it simply uses the inherent weighting you’ve established by setting different maximum point values.

<table>
<thead>
<tr>
<th>A1 70/100, A2 20/80, A3 10/10:</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 + 20 + 10 = 100/190</td>
</tr>
</tbody>
</table>

**Sum of grades** is the sum of all grade values. Scale grades are ignored. This is the only type that does not convert the grades to percentages internally (normalization). This means grades are weighted by their point value directly. The **Maximum grade** of associated category item is calculated automatically as a sum of maximums from all aggregated items.

<table>
<thead>
<tr>
<th>A1 70/100, A2 20/80, A3 10/10:</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 + 20 + 10 = 100/190</td>
</tr>
</tbody>
</table>
**Weighted mean** allows you to establish weights for categories and items. These weights influence the overall importance of each item or category. For example, if a category is weighted at 50%, then regardless of the number of items in that category, the overall mean score of those items will be 50% of the student's grade.

<table>
<thead>
<tr>
<th>A1 70/100 weight 10, A2 20/80 weight 5, A3 10/10 weight 3, category max 100:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0.7<em>10 + 0.25</em>5 + 1.0*3)/18 = 0.625 --&gt; 62.5/100</td>
</tr>
</tbody>
</table>

**Deciding Which Aggregation strategy to use**

Find the scenario that applies most closely to your grading philosophy for a particular course.

**Scenario 1**

**IF**

I know in advance what all the graded course items are, and the available points per item are in proportion to each other (bigger items are worth more points).

**THEN**

Use "Simple Weighted Mean of Grades" or "Sum of grades" as your aggregation strategy. There is no need to establish categories.

**Scenario 2**

**IF**

I know in advance what all the graded course items are, and I use one standard scale to grade my course items. (Points out of five, or out of one hundred, etc.) But, some things are worth more than others (e.g., a final exam graded out of 100 is worth more than a homework assignment graded out of 100).

**THEN**

Use "Weighted Mean of Grades."
Assign proportional weights to the ITEMS.

**Scenario 3**

**IF**

I want the flexibility to add graded course items (pop quizzes, for example).
THEN

Use "Weighted Mean of Grades."
Add proportional weights to the CATEGORIES of items that you want to be flexible.

**Scenario 4**

IF

Everything in my course counts the same, regardless of what scale I use to grade it. (A 15-question quiz is worth the same number of points as a 10-question quiz.)

THEN

Use "Mean of Grades."

**Establishing Grade Categories**

If you select a strategy above that suggests you should use categories, it is easiest to establish these categories prior to adding assignments or manual grade items. This gives you the ability to designate the category (e.g., exams, quizzes, labs, etc.) when you create the grade item. Categories simply allow you to group grade items and alter settings to affect these grouped grades.

*To add new categories:*

1. Select Grades from your course "Administration" block.
2. Select the [Categories and items] tab.

3. Click the [Add category] button at the bottom of the screen.
4. Configure the settings for this particular category:
   a. Give the category a name (e.g., Exams, quizzes, labs).
   b. Determine the aggregation type. Usually set this to the same aggregation type as you have selected for the overall gradebook. However, it is possible to select a different aggregation type for a category. Just be careful as this can have unexpected results.
   c. This category can become a parent category and new child categories can be added within. To illustrate this, a "Quizzes" category (parent category) could contain two other categories (child categories under the parent) labeled, "Pop quizzes before mid-term" and "Pop quizzes after mid-term."
   d. Item weight: The weight of the category in relation to the other categories.
   e. Click the [Save changes] button.

Edit Categories:

1. Click the [Categories and items] tab.
2. Click on the [Edit] button next to the category you would like to edit.
3. Make any necessary changes.
4. Click the [Save changes] button.
Re-arrange grade categories:

1. Click the [Categories and items] tab.
2. To move a category up or down, select the move icon (designated by the up/down arrow).
3. Select the empty box to move the category to a new location.
4. Click the [Save changes] button.

Rearrange grade items:

1. Click the [Categories and items] tab.
2. To move a graded item up or down, select the move icon (designated by the up/down arrow).
3. Select the empty box to move the graded item to a new location.
4. Click the [Save changes] button.
To Assign Existing Grade Items To Categories:

If grade items are added to a specified category, they will be assigned to the parent or course category. To assign grade items to a category:

1. Select the [Categories and items] tab.
2. In the "Select" column, place a check next to the grade item(s) you wish to move.
3. Scroll to the bottom of the page and select from the "Move selected items to" drop-down menu the appropriate category in which the grade items should be moved.

Add manually graded item:

To add new grade items to the grader report without adding an activity to the course page:

1. Select the [Categories and items] tab.
2. Click the [Add grade item] button at the bottom of the screen.
3. Give the item a name and grade type and adjust any other settings as necessary.
4. Click the [Save changes] button.

Entering/Editing grade, including decimal grades and grades over 100%:

A handy feature of the gradebook is the ability to quickly enter or edit grades in a spreadsheet type view. This view allows you to enter point values higher than the grade item's maximum. It also allows you to enter values with decimal points. To access this view:

1. Click Grades in the "Administration" block.
2. This should bring you to the "Grader Report" view, but if not, click the [View] tab then click the Grader report link.
3. Click the [Turn editing on] button in the upper right corner. This will display input boxes for each grade along with editing icons.
4. To enter a grade, click into the box for the student and grade item and enter a score. To enter multiple grades, hit tab key to move down the current column of text entry boxes.
5. When you finish entering grades, click the [Update] button at the bottom of the screen to save the grades. IF YOUR CAMPUS IS USING TIMEOUTS, REPLACE THE PREVIOUS LINE WITH THE FOLLOWING: When you finish entering grades, click the [Update] button at the bottom of the screen regularly to save grades as you work to avoid getting timed out.
**Extra credit**

In some cases, you may decide after the gradebook is established as above, that you want to add optional extra credit grade items to the gradebook or to a particular category. Only two aggregation types easily allow for extra credit: "Sum of grades" or "Simple weighted mean of grade."

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**Assigning extra credit using "Sum of grades" or "Simple weighted mean of grades"**

1. Click the [Categories and items] tab then click the [Turn editing on] button.
2. For the gradebook or category in which you want to apply extra credit, change the "Aggregation type" to **Sum of grades** or **Simple weighted mean of grades**.
3. Then, beside the appropriate gradebook item place a check in the box located in the "Extra Credit" column.
4. Click the [Save changes] button at the bottom.

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**Exporting the gradebook**

You may want to export your gradebook to either serve as a backup or be able to manipulate the data through spreadsheet software such as Excel. Follow these steps to make a backup of your Moodle gradebook for your records.

1. Click on [Export] tab.
2. Select an export format (OpenDoc, Plain text, Excel, XML)
3. Set options as required.
4. Click the [Submit] button.
5. After previewing the data on the following page, click the download button.
Notes