



GEO4D. Workshop on e-learning and PBL (Problem-Based Learning) pedagogy

Advanced Moodle. Peer-reviewed tasks: Workshops

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Advanced Moodle. Peer-reviewed tasks: Workshops



INDEX

[INTRODUCTION](#)

[KEY FEATURES](#)

[WORKSHOP PHASES](#)

Setting the workshop description:

[STEPS TO ADD A NEW WORKSHOP](#)

Simulated practice:

[I. SETUP PHASE](#)

[II. SUBMISSION PHASE](#)

[III. ASSESSMENT PHASE](#)

[IV. GRADING EVALUATION PHASE](#)

Advanced Moodle. Peer-reviewed tasks: Workshops



INTRODUCTION

Workshop is a **peer assessment activity**. Students submit their work via online.

There are **two grades** for a student: their own work and their peer assessments of other students' work.

The screenshot displays the Moodle Workshop interface. At the top, a progress bar shows five phases: Setup phase, Submission phase, Assessment phase, Grading evaluation phase, and Closed. The Submission phase is active, with a checkmark and the text 'Submit your work'. The Assessment phase is also active, with a checkmark and the text 'Assess peers total: 1 pending: 0'. The Closed phase is highlighted in green. Below the progress bar, the 'Your grades' section shows two grade boxes: 'Grade for submission 45 / 80' and 'Grade for assessment 15 / 20'. The 'Your submission' section shows a submission by Alaina Arnot on Thursday, 25 October 2012, at 8:27 AM. The 'Assigned submissions to assess' section shows a submission by Cassey Beckett on Thursday, 25 October 2012, at 8:25 AM. Blue arrows point from the text 'their own work' to the 'Grade for submission' box and from 'their peer assessments' to the 'Grade for assessment' box.

Setup phase	Submission phase	Assessment phase	Grading evaluation phase	Closed
	✓ Submit your work	✓ Assess peers total: 1 pending: 0		

Your grades ▼

Grade for submission 45 / 80	Grade for assessment 15 / 20
--	--

Your submission ▼

My work by Alaina Arnot
submitted on Thursday, 25 October 2012, 8:27 AM

Assigned submissions to assess ▼

My work by Cassey Beckett
submitted on Thursday, 25 October 2012, 8:25 AM

Advanced Moodle. Peer-reviewed tasks: Workshops



KEY FEATURES ([Workshop module](#))

- Students **submit their work** during the Workshop activity. The submission may consist of text directly typed into Moodle's editor, or uploaded files.
 - The submissions are assessed using a structured assessment form defined by the teacher which allow **multi-criteria assessment**.
 - During the **peer assessment** process, students are asked to assess a selected set of their peers' submissions.
 - Students get actually **two grades** in a single Workshop activity:
 - **grade for their submission** (that is how good their submitted work is)
 - **grade for assessment** (that is how well they assessed their peers)
- Remain anonymous (not to reveal their names): hide the identities of the students to each other when assessing is taking place.

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WORKSHOP PHASES ([Using workshop](#), [Workshop in Moodle \(youtube\)](#))

- The Workshop has **five phases**: *Setup to*, *Submission*, *Assessment*, *Grading/Evaluation*, and *Closed phase*. The teacher switches the activity from one phase to another

1. Setup phase

Students cannot do anything. Teachers use this phase to **change workshop settings**, modify the grading strategy of assessment forms. Teacher can switch to this phase any time you need to change the Workshop setting.

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WORKSHOP PHASES

2. Submission phase

Students submit their work. Access control dates can be set so that even if the Workshop is in this phase, submitting is restricted to the given time frame only.

Submission start date (and time) and **submission end date** (and time) can be specified.

A **student** is able to **delete** their own **submission** as long as they can still edit it and it has not been assessed.

A **teacher** can **delete** any **submission** at any time, however if it has been assessed, they will be warned that the assessments will also be deleted and reviewers' grades may be affected.

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WORKSHOP PHASES

- 3. Assessment phase:** this is the phase when students **assess the submissions** allocated to them for the review. As in the submission phase, access can be controlled by specified date and time.
- 4. Grading evaluation phase:** the major task during this phase is to **calculate the final grades** for submissions and for assessments and provide feedback for authors and reviewers. Students cannot modify their submissions or their assessments in this phase any more. Teachers can manually override the calculated grades.
- 5. Closed phase:** the final grades calculated in the previous phase are pushed into the course **Gradebook**. This will result in the Workshop grades appearing in the Gradebook and in the workshop.



SETTING THE WORKSHOP DESCRIPTION

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STEPS TO ADD A NEW WORKSHOP – 1. General ([Workshop settings](#))

- With the editing turned on, in the section you wish to add your workshop, click the ‘[Add an activity or resource](#)’ link and choose ‘[Workshop](#)’.
- On the next screen, in the General section, give the workshop a **name** and a **description** which explains to the students what the workshop will be about. You can display this description by ticking the checkbox.

Advanced Moodle. Peer-reviewed tasks: Workshops



STEPS TO ADD A NEW WORKSHOP – 2. Grading settings

Grading Strategy ([Workshop grading strategies](#))

It determines the **assessment form** students will use and also the **strategy** for grading submissions:

Accumulative grading: Each assessment criterion has its own **numeric grade** along with optional **weighting** and optional comments; a final grade is calculated on the basis of the separate grades and their respective weightings.

Assessment form

Aspect 1

Is this title suitable?

Grade

Comment

Aspect 2

How well is this abstract written?

Grade

Comment

Advanced Moodle. Peer-reviewed tasks: Workshops



STEPS TO ADD A NEW WORKSHOP – 2. Grading settings

Grading Strategy ([Workshop grading strategies](#))

It determines the **assessment form** students will use and also the **strategy** for grading submissions:

Accumulative grading: Each assessment criterion has its own **numeric grade** along with optional **weighting** and optional comments; a final grade is calculated on the basis of the separate grades and their respective weightings.

The influence of a particular criterion is determined by its **weight only**, not the grade type or range used.

$$G_s = \frac{\sum_{i=1}^N \frac{g_i}{max_i} w_i}{\sum_{i=1}^N w_i} \quad G_s = \frac{\frac{90}{100} \times 1 + \frac{16}{20} \times 2 + \frac{4}{5} \times 3}{1+2+3} = \frac{4.9}{6} = 81.7\%$$

where $g_i \in \mathbb{N}$ is the grade given to the i -th criterion, $max_i \in \mathbb{N}$ is the maximal possible grade of the i -th criterion, $w_i \in \mathbb{N}$ is the weight of the i -th criterion and $N \in \mathbb{N}$ is the number of criteria in the assessment form.

Advanced Moodle. Peer-reviewed tasks: Workshops



STEPS TO ADD A NEW WORKSHOP – 2. Grading settings

Grading Strategy ([Workshop grading strategies](#))

Comments: No numeric grade but **feedback only**, as comments.

This strategy can be effective to provide **initial feedback** to the authors. Then Workshop is switched back to the submission phase and the authors can improve it according the comments. Then the grading strategy can be changed to another one using proper grading and submissions are assessed again.

Assessment form

<p>Aspect 1</p> <p>Is this title suitable?</p> <p>Comment*</p> <input type="text"/>
<p>Aspect 2</p> <p>How well is the abstract written?</p> <p>Comment*</p> <input type="text"/>

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Advanced Moodle. Peer-reviewed tasks: Workshops



STEPS TO ADD A NEW WORKSHOP – 2. Grading settings

Grading Strategy ([Workshop grading strategies](#))

Number of Errors: Markers decide whether **the work has passed or failed** each criterion. Various words can be set to express the pass or failure state - eg Yes/No, Present/Missing, Good/Poor, etc. The grade given by a particular assessment is calculated from the weighted count of negative assessment responses (failed assertions).

This assessment method is considered as **easier for reviewers** to understand and deal with. Therefore it is suitable even for younger participants or those just **starting with peer assessment**, while still producing quite objective results.

For example, if an assessment form contains three assertions:

Assertion No.	Content	Pass or failure state	Weight
1	Has the suitable title	Yes/No	1
2	Has creative ideas	Present/Miss	2
3	The abstract is well-written	Yes/No	3

Assessment form

Assertion 1

Has the suitable title

Your assessment No
 Yes

Comment

Assertion 2

Have creative ideas

Your assessment Miss
 Present

Comment

Advanced Moodle. Peer-reviewed tasks: Workshops



STEPS TO ADD A NEW WORKSHOP – 2. Grading settings

Grading Strategy ([Workshop grading strategies](#))

Rubric: Generates a numeric grade based on the **level of achievement** markers choose for each criterion. You'll be able to define your criteria and, for each criterion, as **many levels as you need**.

Assessment form

Criterion 1

Rhyming

Does the limerick rhyme nicely with the first, second and fifth lines rhyming with one another and the third and fourth lines rhyming with one another?

- Only 2 lines rhyme correctly
- 3 or 4 lines rhyme correctly
- All 5 lines rhyme correctly

Criterion 2

Rhythm

Do the first, second and fifth lines match, and the third and fourth lines?

- Only 2 lines match
- 3 or 4 lines match
- All 5 lines match correctly

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STEPS TO ADD A NEW WORKSHOP – 2. Grading settings

Grading Strategy ([Workshop grading strategies](#))

Rubric: Generates a numeric grade based on the **level of achievement** markers choose for each criterion. You'll be able to define your criteria and, for each criterion, as **many levels as you need**.

The final grade is aggregated as

$$G_s = \frac{\sum_{i=1}^N (g_i - \min_i)}{\sum_{i=1}^N (\max_i - \min_i)}$$

where $g_i \in \mathbb{N}$ is the grade given to the i-th criterion, $\min_i \in \mathbb{N}$ is the minimal possible grade of the i-th criterion, $\max_i \in \mathbb{N}$ is the maximal possible grade of the i-th criterion and $N \in \mathbb{N}$ is the number of criteria in the rubric.

Example of calculation: let us have a rubric with two criteria, which both have four levels 1, 2, 3, 4. The reviewer chooses level with the grade 2 for the first criterion and the grade 3 for the second criterion. Then the final grade is:

$$G_s = \frac{(2 - 1) + (3 - 1)}{(4 - 1) + (4 - 1)} = \frac{3}{6} = 50\%$$

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STEPS TO ADD A NEW WORKSHOP – 2. Grading settings

Grade for Submission

This sets the maximum grade a student can attain from a teacher for a given submission. It is scaled between 0-100.

Submission grade to pass

Here you can set a passing grade for the workshop submission.

Grade for Assessment

Sets the maximum grade a student can receive for assessing other students' work. It is also scaled between 0-100.

Assessment grade to pass

Here you can set a passing grade for the workshop assessment.

Advanced Moodle. Peer-reviewed tasks: Workshops



STEPS TO ADD A NEW WORKSHOP – 3. Submission settings

Instructions for submission

Students see this when they click on the link to the Workshop. Explain here **what they need to do to make a successful submission.**

If you wish students to attach **files**, select **how many** here, up to a maximum of 7. If you leave it at 0 then they can only enter text.

You can also specify which **types of file** they are allowed to upload (mp4, mp3, png, jpg). If the field is left empty, then all file types are allowed.

Late Submissions

Ticking this box will allow students to submit after the deadline.

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STEPS TO ADD A NEW WORKSHOP – 4. Assessment settings

Instructions for assessment

Students see these **instructions** when the Workshop is in Assessment Phase.

Use self-assessment

Checking this box means that students may be allocated their **own work to assess**.

Advanced Moodle. Peer-reviewed tasks: Workshops



STEPS TO ADD A NEW WORKSHOP – 5. Feedback

Overall feedback mode

If this is enabled, a text box appears at the bottom of each assessment form for reviewers to give an **overall comment** about the submission. You can make this required or optional.

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STEPS TO ADD A NEW WORKSHOP – 6. Example submissions

In some situations, it might be helpful to the students to see one or more **examples** of what they must submit. Assessments of the example submission are **not counted** when calculating the grade for assessment.

Advanced Moodle. Peer-reviewed tasks: Workshops



STEPS TO ADD A NEW WORKSHOP – 7. Availability

This section deals with setting **submission times and assessment times** for the workshop. That is the time when students can start submitting as well as the deadline for submitting, and similarly the time assessments for other students' work start and when they must finish assessing other students work.

Advanced Moodle. Peer-reviewed tasks: Workshops



STEPS TO ADD A NEW WORKSHOP – 8. Turnitin plagiarism settings

It is an application to detect **plagiarism**. Submissions could be checked for originality.

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STEPS TO ADD A NEW WORKSHOP – 9. Common module settings

Availability: If the **availability** is set to 'Show on course page', the activity or resource is available to students. If the availability is set to 'Hide from students', the activity or resource is not available to students.

Groups can be created so each group member works in their own group.

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STEPS TO ADD A NEW WORKSHOP – 10. Restrict access

The restrict access feature enables teachers to restrict the availability of any activity or even a course section according to **certain conditions** such as dates, grade obtained or activity completion.

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STEPS TO ADD A NEW WORKSHOP – 11. Activity completion

Activity completion allows the teacher to **set completion criteria** in a specific activity's settings. A check (tick) appears against the activity when the student meets this criterion. The criterion might be viewing, receiving a certain score or a student marking it as complete.

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STEPS TO ADD A NEW WORKSHOP

Click [Save and Display](#) to access further settings

Once saved, you will see the Workshop displayed like this:

Workshop phases

Setup phase Current phase ●	Submission phase Switch to the submission phase ○	Assessment phase Switch to the assessment phase ○	Grading evaluation phase Switch to the evaluation phase ○	Closed Close workshop ○
<ul style="list-style-type: none">✓ Set the workshop description✗ Provide instructions for submission✓ Edit assessment form✓ Switch to the next phase	<ul style="list-style-type: none">✓ Provide instructions for assessment✓ Allocate submissions expected: 11 submitted: 0 to allocate: 0ⓘ Submissions deadline: Tuesday, 9 May 2017, 1:40 PMⓘ Time restrictions do not apply to you		<ul style="list-style-type: none">✓ Calculate submission grades expected: 11 calculated: 0✓ Calculate assessment grades expected: 11 calculated: 0✓ Provide a conclusion of the activity	



SIMULATED PRACTICE

Advanced Moodle. Peer-reviewed tasks: Workshops



I. SETUP PHASE

You must now click 'Edit assessment form' to set the criteria students will need for when they do their peer assessments later on.

[Save and close](#)

Include an example submission if you want students to be able to see this form when they submit.

Advanced Moodle. Peer-reviewed tasks: Workshops



II. SUBMISSION PHASE

To decide how students will receive the submissions of their peers, click the 'Allocate submissions' link in the Submission phase section. The teacher can choose among 3 allocation methods:

Manual Allocation

A teacher can manually choose which students review whose work.

A student can review work even if they have not submitted anything themselves.

The screenshot shows the 'Use of source materials' interface in Moodle. It features three tabs: 'Manual allocation' (selected), 'Random allocation', and 'Scheduled allocation'. Below the tabs, there are two rows of settings for different participants.

Participant is reviewed by	Participant	Participant is reviewer of
<p>Add reviewer</p> <p>Choose user... ▾</p> <ul style="list-style-type: none">Brian Franklin ✕Michael Moriarty ✕Mrs Hudson ✕Sherlock Holmes ✕	<p> James Watson</p> <p>Source Materials JW</p> <p>No grade yet</p>	<p>Self-assessment disabled</p> <p>Add reviewee</p> <p>Choose user... ▾</p> <ul style="list-style-type: none">Brian Franklin ✕Michael Moriarty ✕Mrs Hudson ✕Sherlock Holmes ✕
<p>Add reviewer</p> <p>Choose user... ▾</p> <ul style="list-style-type: none">Brian Franklin ✕Michael Moriarty ✕Mrs Hudson ✕James Watson ✕	<p> Sherlock Holmes</p> <p>Sherlock Submission (Final)</p> <p>No grade yet</p>	<p>Self-assessment disabled</p> <p>Add reviewee</p> <p>Choose user... ▾</p> <ul style="list-style-type: none">Brian Franklin ✕Michael Moriarty ✕Mrs Hudson ✕James Watson ✕

Advanced Moodle. Peer-reviewed tasks: Workshops



II. SUBMISSION PHASE

Random Allocation

The teacher is given settings that determine how the random allocation will work.

- **Number of reviews:** Here the teacher picks between 0 and 30 reviews for either each submission or per reviewer.
- **Remove current allocations:** Checking this box means that any manual allocations that have been set in the Manual Allocation menu will be removed.
- **Can assess with no submission:** Having this box checked allows students to assess other students' work without having already submitted their own work.
- **Add self assessments:** This options when checked make sure that as well as assessing other students' work they must also assess their own.

Advanced Moodle. Peer-reviewed tasks: Workshops



II. SUBMISSION PHASE

Scheduled Allocation

When the workshop is automatically switch to the Assessment phase once the deadline for submissions is over, then enabling Scheduled allocation means that Moodle will automatically allocate (randomly) the submissions to be assessed at the end of the submission phase.

Advanced Moodle. Peer-reviewed tasks: Workshops



III. ASSESSMENT PHASE

In this phase, reviewers assess the submissions they have been allocated.

- Peer assessment:

A student will be allocated a certain amount of submissions from his peers to assess. He will receive a grade for each assessment, which will be added together with the grade for his own submission and this will be used as his final grade for this assignment.

Note: this is the **key feature of workshop**: to encourage students to assess the work of their peers and learn from each other. Through this, they will see the strengths of their classmates' submissions and have a better understanding about how to do a good job. In addition, the advices they get from their peers will give them a more comprehensive view of their own work: the comments from their peers will point out the weakness of their work, which is generally difficult to find out by themselves.

Advanced Moodle. Peer-reviewed tasks: Workshops



III. ASSESSMENT PHASE

- Self-assessment:

If this option is turned on, a student may be allocated **his own work** to assess. The grade he receives from assessment of his own work will be counted into the grade for assessment, which will be added together with the grade for submission and used to calculate his final grade for this assignment.

Note: this setting enables teachers to see whether students can find out the strength and weakness of their own submissions and judge them objectively. It is a good way to help students think more comprehensively.

Advanced Moodle. Peer-reviewed tasks: Workshops



III. ASSESSMENT PHASE

The table below explains how the grades display:

Less-than

Greater-than

Value	Meaning
- (-) < Alice	There is an assessment allocated to be done by Alice, but it has been neither assessed nor evaluated yet
68 (-) < Alice	Alice assessed the submission, giving the grade for submission 68. The grade for assessment (grading grade) has not been evaluated yet.
23 (-) > Bob	Bob's submission was assessed by a peer, receiving the grade for submission 23. The grade for this assessment has not been evaluated yet.
76 (12) < Cindy	Cindy assessed the submission, giving the grade 76. The grade for this assessment has been evaluated 12.
67 (8) @ 4 < David	David assessed the submission, giving the grade for submission 67, receiving the grade for this assessment 8. His assessment has weight 4
80 (20 / <u>17</u>) > Eve	Eve's submission was assessed by a peer. Eve's submission received 80 and the grade for this assessment was calculated to 20. Teacher has overridden the grading grade to 17, probably with an explanation for the reviewer.

Advanced Moodle. Peer-reviewed tasks: Workshops



IV. GRADING EVALUATION PHASE ([Using workshop](#))

In this phase, users cannot modify their submissions or their assessments. Teachers may use the grading evaluation tools to **calculate final grades** and provide feedback for reviewers.

Grade for submission

The final grade for every submission is calculated as weighted mean of particular assessment grades given by all reviewers of this submission. The **teacher** can influence the grade in two ways:

- by providing their **own assessment**, possibly with a higher weight than usual peer reviewers have
- by **overriding** the grade to a fixed value

Advanced Moodle. Peer-reviewed tasks: Workshops



IV. GRADING EVALUATION PHASE

Grade for assessment (Grading grade)

The grade for assessment tries to estimate the **quality of assessments** that the participant gave to the peers. This grade is calculated by the artificial intelligence hidden within the Workshop module as it tries to do a typical teacher's job.

There is only one grading evaluation method: '**Comparison with the best assessment**', which is used to calculate the grades for assessment. The final grade for assessment is calculated as the average of particular grades.

The process is deterministic. The workshop picks **one of the assessments as the best one** - that is closest to the mean of all assessments - and gives it a grade of 100%. Then it **measures the 'distance' of all other assessments from this best one and gives them lower grades depending on how different they are from the best assessment** (given that the best one represents a consensus of the majority of assessors). The parameter of the calculation is how strict we should be, that is how quickly the grades fall down if they differ from the best one.

Advanced Moodle. Peer-reviewed tasks: Workshops



IV. GRADING EVALUATION PHASE

Grade for assessment (Grading grade)

Example

A teacher uses Number of errors as grading strategy to peer-assess one assignment. This strategy uses a couple of assertions and assessors just need to check if the given assertion is passed or failed. That is, they only need to choose 'yes' or 'no' for each criterion in the assessment form. In this case, there are three assessors, Alice, Bob and Cindy. And the assessment form contains three criteria. The author will get 100% grade if all the criteria are passed, 75% if two criteria are passed, 25% if only one criterion is passed and 0% if the assessor gives 'no' for all three assertions. Here are the assessments they give to one certain work:

Alice: yes/yes/no

Bob: yes/yes/no

Cindy: no/yes/yes

Advanced Moodle. Peer-reviewed tasks: Workshops



IV. GRADING EVALUATION PHASE

Grade for assessment (Grading grade)

Example

Alice: yes/yes/no Bob: yes/yes/no Cindy: no/yes/yes

Then the best assessment will be: Yes/yes/no

Second, the workshop will give the best assessment 100% grade. Next it will measure the 'distance' from other assessments to this best assessment. The farther the distance, the lower grade the assessment will receive. The 'Comparison of assessments' setting will determine how quickly the grade falls down if the assessment differs from the best one.

In the example, all of the three assessors give **75% to the submission**. However, only Alice and Bob will get **100% grade for their assessments**, while Cindy will get a lower grade, because Alice and Bob agree in individual responses too, while the responses in Cindy's assessment are different.

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IV. GRADING EVALUATION PHASE

Grade for assessment (Grading grade)

COMPARISON OF ASSESSMENTS:

This setting has 5 options: very lax, lax, fair, strict and very strict. It specifies **how strict the comparison of assessment should be**. By using comparison with the best assessment method, all assessments will be compared with the best assessment picked up by workshop. The more similar one assessment is with the best assessment, the higher grade this assessment will get, and vice versa. This setting determines how quickly the grades fall down when the assessments differ from the best assessment.

Advanced Moodle. Peer-reviewed tasks: Workshops



IV. GRADING EVALUATION PHASE

Grade for assessment (Grading grade) (only 2 reviewers)

If there are just two assessments per submission, the workshop cannot decide which of them is 'correct'. To prevent this, you have two options:

- Either you have to provide an additional assessment so the number of assessors (reviewers) is odd and workshop will be able to pick the best one. Typically, the teacher comes and provide their own assessment of the submission to judge it
- Or you may decide that you trust one of the reviewers more. For example you can increase the weight of one reviewer's assessment, let us say to "2" (instead of default "1"). For the purposes of calculation, this reviewer's assessment will be considered as if there were two reviewers having the exactly same opinion and therefore it is likely to be picked as the best one.



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