



## Background

Blackboard tests can be used for both formative and summative purposes, and they come with a number of benefits such as improved legibility, the ability to track progress, and automated marking. Information is available from the [Blackboard help pages](#), but this document provides information guided by the University's experience with using online assessments and includes guidance on settings and which question types are recommended for use and which require a more cautious approach. If you are planning on using Blackboard tests for summative purposes, and particularly for high-stakes assessments such as online exams, please contact your faculty eLearning team at the earliest opportunity to obtain help and advice.

Creating tests in Blackboard is a two-step process. The first is to create the questions, the second is to make that test available (or "deploy" it) in an online content area. This document provides advice on both stages, including information on the different question types and marking options that are available, and on the different settings that can be used when deploying a test.

## Question types

Several different question types are available for Blackboard tests, each with their strengths and weaknesses. The table below summarises the University's recommendations for using each type of question and what method of marking is available. More detailed information is provided below the table.

Question type	Recommendation	Method of marking
Calculated formula	Use with caution	Automatic / Manual
Calculate numeric (without exponential numbers)	Use with care	Automatic / Manual
Calculated numeric (using exponential numbers)	Not recommended for use	Automatic / Manual
Either / Or	Simple and easy to use	Automatic
Essay	Use with care	Manual
File response	Simple and easy to use	Manual
Fill in multiple blanks	Use with caution	Automatic
Fill in the blank (single)	Use with care	Automatic
Hot spot	Use with care	Automatic
Jumbled sentence	Use with care	Automatic
Matching	Use with care	Automatic
Multiple answer	Use with care	Automatic
Multiple choice	Simple and easy to use	Automatic
Opinion scale / Likert	Simple and easy to use	Automatic
Ordering	Use with care	Automatic
Quiz bowl	Use with care	Automatic
Short answer	Use with care	Automatic
True / False	Simple and easy to use	Automatic

### Calculated formula – Use with caution

This question type requires numeric answers calculated from a formula with randomised parameters. Partial credit is supported, but options for marking are complex and should be understood before use and clearly explained to students in the question instructions.

A good on-screen explanation of steps is provided when setting the question. Although automated marking is available, manual intervention may be required depending on the marking options selected.

The number of decimal places for the answer can be selected from 1 to 50.

Note: Blackboard gives the following advice when setting Calculated formula questions: *Variables must consist of letters, but “pi” and “e” are reserved and cannot be used as variables.* Please note that the letter “l” is also reserved and cannot be used as a variable.

[Watch a video demonstration](#)

### Calculated numeric (without exponential numbers) – Use with care

This question type requires a simple numeric answer. The system can be set to automatically mark answers as correct if they fall within a specified range, but the system rounds responses beyond 5 decimal places. Answers within a range cannot include units or partial marking. Automated marking is available, but answers can be manually remarked if necessary.

Note: It is possible to specify units for an answer and award marks for this. It is also possible to make the units case sensitive, so for example it is possible to mark answers with units of ‘Pa’ correct but units of ‘pa’ incorrect. Previous versions of Blackboard were unable to process answers with a space between the number and the unit, but this now appears to have been fixed.

[Watch a video demonstration](#)

### Calculated numeric (with exponential numbers) – Not recommended for use

Answers to calculated numeric questions that require or may use exponents (e.g.  $5 \times 10^{-16}$  or  $1.234e^7$ ) are not well supported. Only formats including an upper case E are accepted, for example:

- 1.234E-19 (for small numbers)
- 1.234E7 (for large numbers)
- 1.234E+7 (for large numbers)

Answers using a lower case e (e.g.  $1.234e6$  or  $1.234e+6$ ) will not be accepted as valid. Therefore, if question require responses in exponential format, students must be given clear instructions on how to format their answer and the question must be thoroughly tested before being deployed. Alternatively, consider using a different question type such as Multiple choice.

[Watch a video demonstration](#)

### Either / Or – Simple and easy to use

This question type is a variant of the multiple choice question type with only two options, limited to Yes / No, Agree / Disagree, True / False, or Right / Wrong. Answers are automatically marked, but may be manually remarked if required.

### Essay – Use with care

This question type gives students a large text box in which they can type their answer. An example correct answer can be provided that is only visible to the marker. Answers require manual marking.

[Watch a video demonstration](#)

### File response – Simple and easy to use

This question type requires students to upload a file, for example a Word document. This can be a useful way to allow students to submit non-textual work such as diagrams, graphs or images. Manual marking is required.

### Fill in multiple blanks – Use with caution

This question type is a variant of the Fill in the blank question type (see below) that allows the use of multiple blanks within one question. The question is in the form of a short text with multiple gaps, each of which can represent a single word, short phrase or a number. It is important to bear these points in mind when using this question type:

- All variations of spelling and alternative answers for each gap have to be factored in when creating the question.
- If gaps are short phrases, students must enter only one space between words or their answer will be marked as incorrect.
- Clear advice needs to be given to the student on avoiding extra spaces between words

It is recommended that blanks are kept to single words rather than phrases, but if this is unavoidable you can use the “Pattern Match” feature to filter out errors caused by having extra spaces between words. To use this feature, you should enter `\s+` between words in the answer (e.g. fish\s+chips). This will accept any number of spaces between words. Spaces before the first word in the answer are automatically accepted by Blackboard. For more information on this question type see [Blackboard’s own help page](#).

[Watch a video demonstration](#)

### Fill in the blank – Use with care

This question type presents the student with a short text with a gap that the student has to fill in. Answers with spelling mistakes or alternate spellings are marked as incorrect, though it is possible to specify a range of correct alternative answers in addition to the “right” answer. This question type is automatically marked, but can be manually remarked.

Note: As there is no margin for error, this question type is not recommended for use unless you are willing to specify a number of correct answers or are happy to check incorrect answers for spelling mistakes or small errors that still constitute a correct answer.

[Watch a video demonstration](#)

### Hot spot – Use with care

This question type requires an image to be uploaded, onto which a rectangular target area is defined by the question setter. The student is required to click on the image and marks are awarded if the student clicks within the target area. Marking is automated, but manual remarking is possible.

Note: There used to be the possibility of a small margin of error when setting the target area, in which an area within 3 pixels of the target area may not be marked correctly. This is a small margin of error that in most cases

will be insignificant, and a recent update to Blackboard should have fixed the problem, but care is still advised when setting the target area.

[Watch a video demonstration](#)

### **Jumbled sentence – Use with care**

This question type presents the student with a paragraph of text in which there are one or more gaps. Each gap contains a drop-down menu from which the student can select the appropriate word. Answer options within the menu should be unique (i.e. only appear once), but the same answer can be specified as the correct option for several gaps. It is possible to provide more answers than there are gaps to function as “distractors”. As it is not possible to specify more than one correct answer for each gap, care needs to be taken to ensure that answers cannot be given in more than one order and still produce a correct statement. Answers appear in the drop-down menu in the order that they are entered, and so they should be manually randomised. Partial credit is supported by this question type.

Note: This question type does not support negative marking. If partial credit is selected, a proportion of the total marks available are awarded for each correct response. As such, the student can simply pick the same response each time and be awarded some marks just for guessing. If partial credit is not selected, then all responses must be correct for any marks to be received.

[Watch a video demonstration](#)

### **Matching – Use with care**

In this question type, students are asked to pair items from two columns using drop-down boxes. Answer options do not have to be unique, and it is possible for a student to choose the same option more than once. With this in mind, if there is a need to use a particular answer multiple times, that answer should only be specified once in the available options as otherwise there is a risk of an answer being marked incorrectly.

Partial credit is supported for this question type, with a proportion of the available marks being given for each correct response, meaning that students can simply select the same response each time and be awarded marks for guessing. It is essential that the mark scheme is set up correctly if you are using partial credit – see the section below on Marking options for more information.

Note: Negative marking is available for this question type, but should not be used because in addition to penalising students who choose incorrect answers it will also penalise students who avoid answering the question. Automatic regrading is not available for this question type, and so it is essential that the mark scheme is set up appropriately.

[Watch a video demonstration](#)

### **Multiple answer – Use with care**

This question type is a variant of the Multiple choice question (see below) where the student is allowed to select more than one answer. This question type is automatically marked, but can be manually remarked. Partial credit is supported, with the number of marks awarded being based on a predefined system in Blackboard. If partial credit is not allowed, the student must pick all the correct answers and avoid all the incorrect answers to obtain any marks.

Note: Students should be informed of the marking scheme in the question instructions. It is possible to add images or attach files to the answers or to provide feedback, but there are problems with this. See the Knowledge Base article [How to insert images into assessment question text or answers in Blackboard](#).

[Watch a video demonstration](#)

### **Multiple choice – Simple and easy to use**

This question type is a standard multiple choice question wherein the student is asked to select a single answer from a list. This question type is automatically marked, but can be manually remarked. Given the simplicity and ease of use for this question type, it is recommended as the main type to be used for tests.

Note: It is possible to add images or attach files to the answers or to provide feedback, but there are problems with this. See the Knowledge Base article [How to insert images into assessment question text or answers in Blackboard](#).

[Watch a video demonstration](#)

### **Opinion scale / Likert**

In this question type, students are asked to identify their answer on a comparable scale, often used to measure attitudes or reactions to statements. Between 2 and 20 options can be added to the scale, and the options can be renamed as required. Responses are automatically marked, but can be manually remarked. Partial credit is supported, with the correct answer being given 100% of the available marks, and a percentage of marks specified for the remaining options.

[Watch a video demonstration](#)

### **Ordering – Use with care**

For this type of question, students are asked to put items in the correct order using drop-down menus next to a list of options to specify the order in which they should appear. Between 2 and 20 items can be listed, and the order in which they appear is specified when the question is built.

Note: Auto-regrading is not available for this question type, and so it is important that the mark scheme is correct and tested before the test is deployed.

[Watch a video demonstration](#)

### **Quiz bowl – Use with care**

In this type of question, the question text is a statement and the student response takes the form of a question. It is possible to specify 1-20 interrogatives and 1-20 answer phrases. For the student response to be marked correctly, an exact match to the question needs to be given. Therefore, when creating the question, all possible ways in which the question can be asked must be factored in.

Note: Partial credit is supported, but the rules controlling it are complex and therefore must be thoroughly tested before deployment.

[Watch a video demonstration](#)

## Short answer – Use with care

This question type presents the student with a small text box in which they type a textual response to the question. Manual marking is required for this question type, and there is no option to provide standard, automated feedback.

Note: Although the option to specify the number of lines available to the student for their answer appears when building the question, in practice this has no effect, and there is no limit to the length of answer that can be provided.

[Watch a video demonstration](#)

## True / False – Simple and easy to use

This is a variant of the Multiple choice and Either / Or question type, where the only possible answers are True and False. Answers are automatically marked, but can be manually remarked.

[Watch a video demonstration](#)

## Marking options

The marking options available for Blackboard tests and quizzes are dependent on both the question types used and the settings for the test. Marking may be automated or manual, and in many cases partial credit options are available. Negative marking is also possible for some question types.

### Automatic marking

One of the advantages of online tests is the ability to have the system mark answers and return feedback automatically. This is available for many of the most commonly used question types, and the availability of this option is included in the table above. When designing a test or quiz, this table will help you to quickly identify which question types will allow automated marking and which will require manual intervention. The notes on each question type above also indicate when manual checking of results may be required.

### Manual marking

Where manual marking is required for a student's submission, this will be shown by an exclamation mark icon in the Grade Centre. This may indicate that either question types that require manual marking have been used, or that the student has overrun the amount of time available in a timed test (see below).

If manual marking is required, the course instructor can access the submission by clicking on the exclamation mark icon in the Grade Centre. There may already be a mark awarded by the system that needs verifying by the instructor, or the instructor may need to award the mark themselves.

If there are several submissions that require manual marking, it is possible to navigate between them using the "Save and Next" button. However, this should only be used if the mark has been altered, as this navigation method only removes the "needs marking" status if changes have been made.

Note: Both the "Save and Next" and "Save and Exit" buttons overwrite the actual time of the student's submission with the time that the button was pressed. This can lead to work appearing to have been submitted late, and so care must be taken to avoid unfairly penalising students in these cases.

## Negative marking

Negative marking is available for the following question types:

- Matching (not advised)
- Multiple answer
- Multiple choice

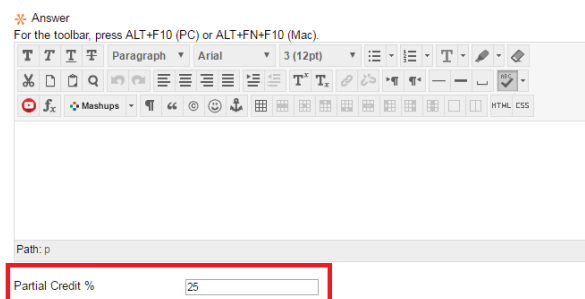
Please note that negative marking is not advised for the Matching question type as students who avoid answering the question will also be negatively marked. Setting up negative marking requires two steps. The first is to allow negative marking for the entire test in the Question Settings menu. The second is to define the mark scheme for each individual question.

More information can be found on Blackboard's help page on [Question Settings](#), and this [video demonstration](#) shows the set up process.

## Partial credit

Partial credit can be applied to some question types, and this can be applied automatically or manually. As with negative marking, there are two stages in setting this up – enabling it in the Question Settings menu and setting the mark scheme for each question. More details can be found on Blackboard's help page on [Question Settings](#). When using partial marking, it is important that it is set up as follows:

- Define the marks for each response manually using the 'Partial Credit %' field just below the text editor for each answer – do not use the "Update Partial Credit %" option
- Marks for each response should be rounded to a maximum of 3 decimal places
- Make sure that the total adds up to 100%



Failure to follow these steps can lead to a fully correct answer being awarded slightly less than full marks. This can result in knock-on effects on adaptive release, for example.

## Automatic regrading

It is possible to change the marking scheme for most question types in a test after students have taken it, with the automatic regrade feature allowing marks to be updated without manual intervention. This will change individual test scores so that they are in line with the new marking scheme and will also update the Grade Centre accordingly. The regrading will apply both to completed tests and tests in progress. Ordering and Matching questions cannot be automatically regraded.

To find out more about this feature, please refer to the Knowledge Base article [How to use automatic regrading after tests have been submitted in Blackboard Assessments](#).

## Test options

Once a test has been created, you will need to set the test options so that it is released to students in the way that you wish. These options allow you to define

- who can access the test
- when the test is available

- at which location(s) the test is available
- how many attempts a student can make
- whether feedback is given and what form it takes
- when feedback is given

These options are set when you deploy the test in a content area of a course unit. The Blackboard video on [creating tests](#) demonstrates deployment from around the 2 minute mark. Full details of the test options available can be found on the Blackboard help page [Test and Survey Options](#). Test options can be edited at any time after it has been deployed by selecting “Edit test options” from the drop-down menu next to the link in the content area.



The table below summarises the recommended options for formative assessments. For summative assessments, please contact your faculty eLearning team ([elearning@manchester.ac.uk](mailto:elearning@manchester.ac.uk)) for advice. More specific information and recommendations are provided below the table.

Option	Recommendations for formative tests
<b>Test information</b>	
Show test description	Leave unselected
Open test in new window	Set to “no”
<b>Test availability</b>	
Make link available	Set to “Yes”
Add a new announcement	Set to “No”
Multiple attempts	Set to “Allow unlimited” (see below)
Force completion	Leave unselected (see below)
Set timer	Yes, if it must be timed, and should be set with auto-submit enabled (see below)
Display after / Display until	Set as required if the test is not for immediate availability
Password	Leave unselected
Restrict location	Set to “No restrictions” (see below)
<b>Test availability exceptions</b>	For most formative tests, none should be required
<b>Due date</b>	You may set a due date by which a test must be completed
<b>Self-assessment options</b>	
Include this test in Grade Centre score calculations	Selected
<b>Show test results and feedback</b>	
Test presentation	All at once
Randomise questions	If required (see below)



This short [video demonstration](#) shows how to set test options. Care is needed with some of the options, and more detail on this is provided below. Further information on test options can be found on Blackboard's help page [Test and Survey Options](#).

### Test availability: Display dates

Tests can be configured with test availability dates within the test options screen. This specifies when the test will become available for students to access and take. In addition, tests can have adaptive release rules applied, as with other resources in Blackboard. Although display dates and adaptive release rules can operate independently, both have to provide availability to students for the test to be visible.

If a student is taking a test when it becomes unavailable, the student will be unaffected and will be able to complete the test as normal. Their submission time will be recorded in the Grade Centre.

### Auto-saving responses

Student responses are saved automatically as the candidate progresses through the test. If a student leaves the test without submitting, their answers up to that point are saved for when they return to the test so they can continue from where they left off.

Auto-saving can sometimes interfere with the user interface by switching the browser's focus away from drop-down menus mid-selection if the auto-save takes place when the menu is open and being used by the student to select an answer. This does not present a major obstruction in taking the test, however.

### Set timer and Auto-submit

It is possible to deliver a Blackboard test that a student must complete within a set amount of time. The maximum duration of a test is five hours. With a timer in use, another option becomes available, "Auto-submit", which sets the test to automatically submit the student's test when the time limit is reached. If a timer is used, it is strongly recommended that Auto-submit is also used.

Note: If Auto-submit is not used, when the timer reaches zero the user is given the option to submit or to continue with the test. If the user chooses to continue the clock starts to count negatively and the user can continue to complete the test. Students' responses will be automatically marked according to the grade scheme, but manual intervention will be required to confirm those marks. This provides the opportunity to make adjustments for late submission, but these adjustments must be made manually.

### Multiple attempts

The Multiple attempts option allows the instructor to choose whether the student is able to submit their answers to a test multiple times, and if so, how many times. Where multiple attempts are allowed, the test's column in the Grade Centre can be configured to show the grade of the last attempt (by default), or the highest, lowest, first, or an average grade. This also affects the grade displayed to students within the My Grades tool. Selecting Edit Column Information on the drop-down menu for the Grade Centre also allows this selection to be made.

### Force completion

By default, if a student leaves a test without submitting then their answers are saved so that they may return to the test later on. The Force Completion option overrides this so that a submission must be completed in a single sitting. If the student attempts to leave the test without submitting, then their answers up to that point are lost.

Note: It is not recommended that Force completion is used, particularly when students are not allowed multiple attempts. This is because when this option is applied, students would be unable to take the test or submit their answers regardless of any valid reason for needing to do so.

### Randomise questions

This option randomises the order in which questions are presented to the candidate. The randomisation of the selection of questions to appear can be set up within the Test Canvas screen (by clicking on a test's drop-down menu and choosing Edit Test), then using the Reuse Question button and choosing Create Random Block.

Wherever randomisation occurs, be it randomly selected MCQs or randomly selected variable selection for a Calculated Formula question, once the student begins an attempt and the random selection for that attempt has been actioned, the selection remains the same until the student submits. Saving and re-entering the attempt does not lead to re-randomisation / selection of questions or parameters. Later attempts at the assessment, where multiple attempts are allowed, will have a new random selection.

### Restrict location

It is possible to restrict access to a test based on the IP address of the machine being used. Students can therefore be restricted by location. However, it is unlikely that this feature would be required for formative tests. More information can be found on the Blackboard help page [Restrict Tests by Location](#).

Note: There is a known minor bug with this feature. When attempting to override the blocking of user access from a single IP address, the instructor receives the error "The specified feature was not found." However, the block is still lifted and the system works as expected.

If you intend to use this feature for summative assessments, please contact your Faculty eLearning team ([elearning@manchester.ac.uk](mailto:elearning@manchester.ac.uk)) in advance.

### Test availability exceptions

You can make exceptions to existing availability settings for individual students or groups. For example, you could allow extra time to certain students taking timed tests, or allow a restricted set of students to take the test more than once. Exceptions include:

- number of permitted attempts
- time allowed
- location by IP address
- availability dates

More details are available in the [Test and Survey Options](#) section of the Blackboard help pages. For most formative assessments, however, it is unlikely that you will need to define such exceptions.

Note: If using this feature, it is important to avoid introducing any conflicts between User and Group test availability exceptions. Such clashes might lead to unpredictable results.

If you intend to use this feature for summative assessments, please contact your Faculty eLearning team ([elearning@manchester.ac.uk](mailto:elearning@manchester.ac.uk)) in advance.