

Cambridge Assessment Network provides professional development to the assessment community. We equip practitioners with the skills and knowledge to design and develop effective assessments. From the foundations of assessment practice, to a postgraduate qualification in educational assessment and bespoke solutions, we have a training programme to suit your needs.

This resource is an example of the resources that accompany our interactive assessment training webinar - <u>How to design multiple-choice questions with impact</u>. The next session is on 7 October, 12:30 – 14:00 UK time.

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Resource: Multiple choice questions - top tips for development and review

Before Item Development	Why is this useful?
Consider the purpose of the whole assessment. For example, are you looking to check key concepts or are you looking to effectively rank students?	This will inform how you set the demands of questions across the assessment. For example, if you are looking to check key knowledge, you will want to design items that are no more challenging than necessary to conclude students have the required knowledge. If you want to discriminate amongst your students, you will want to have easier and more demanding items to help differentiate effectively.
Check if you already have questions available that work well	MCQ item writing can be a time-consuming process, especially when you are looking to assess higher order skills. It may be sensible to share items within your institution. You may also look to re-purpose or edit items that have been used for summative assessment. They have already been reviewed for quality by awarding organisations or other institutions.
During Item development	Why is this useful?
Present the question as a single statement before creating the MCQ.	This can help you clarify the purpose of the question, and can help you link it directly to either your assessment objective, or to the topic of focus.
Base each item on one type of content or cognitive demand	Ideally, you want you MCQ items to be specific to a content area or a demand level. This prevents the possibility that a student knows the answer what you were aiming to assess but is getting the item incorrect because they need to access irrelevant knowledge.



Keep items independent on one another	This prevents the possibility that a student will get multiple items incorrect simply because of a misunderstanding on an earlier item.
Avoid the use of opinions in the items	Opinions are by their nature open for debate, and it is often difficult to decide upon an objectively correct answer. You may use qualified opinions, however, that cite a third party (e.g. an institution, a document or a person).
State the central idea in the stem and not the options	This improves readability of the options.
Make sure only one of the options is the correct answer	This prevents difficulties with data analysis. In some cases you might find a distractor that is not correct but that students have regularly selected. It is worth exploring this distractor as it can sometimes be a plausible correct answer.
Present the options vertically rather than horizontally	Vertical presentation of answer options makes it easier for students to know which answer box relates to which option. It helps accessibility of the question.
Make sure that all options are plausible e.g. no ridiculous distractors	Non-plausible distractors increase the chance that students will guess the correct answer. This reduces the information that you can gather about students, and the discriminatory power of the assessment.
Ask students to justify their responses to some of the MCQ questions when using the assessment to inform learning	This approach has been used by Diagnostic Questions for their computer science platform. It provides useful additional information as it can identify if students are arriving at the correct answer for the correct reasons. https://diagnosticquestions.com/quantum
Assessment and question review	Why is this useful?
Use a checklist for item review for your assessment	Research has found that errors or issues with questions can be identified at an early stage when assessment developers work through systematic checklists.
Have a non-subject specialist take your assessment, and ask for their feedback	This can help you identify when questions in your assessment are giving 'clues' as to the correct answer. If it is too easy to guess the correct answer, then this is an issue for the quality of the item.

