



UNIVERSITY  
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INTERNATIONAL  
PROGRAMMES

Guide

# Assessment Toolkit II: Time- constrained examinations

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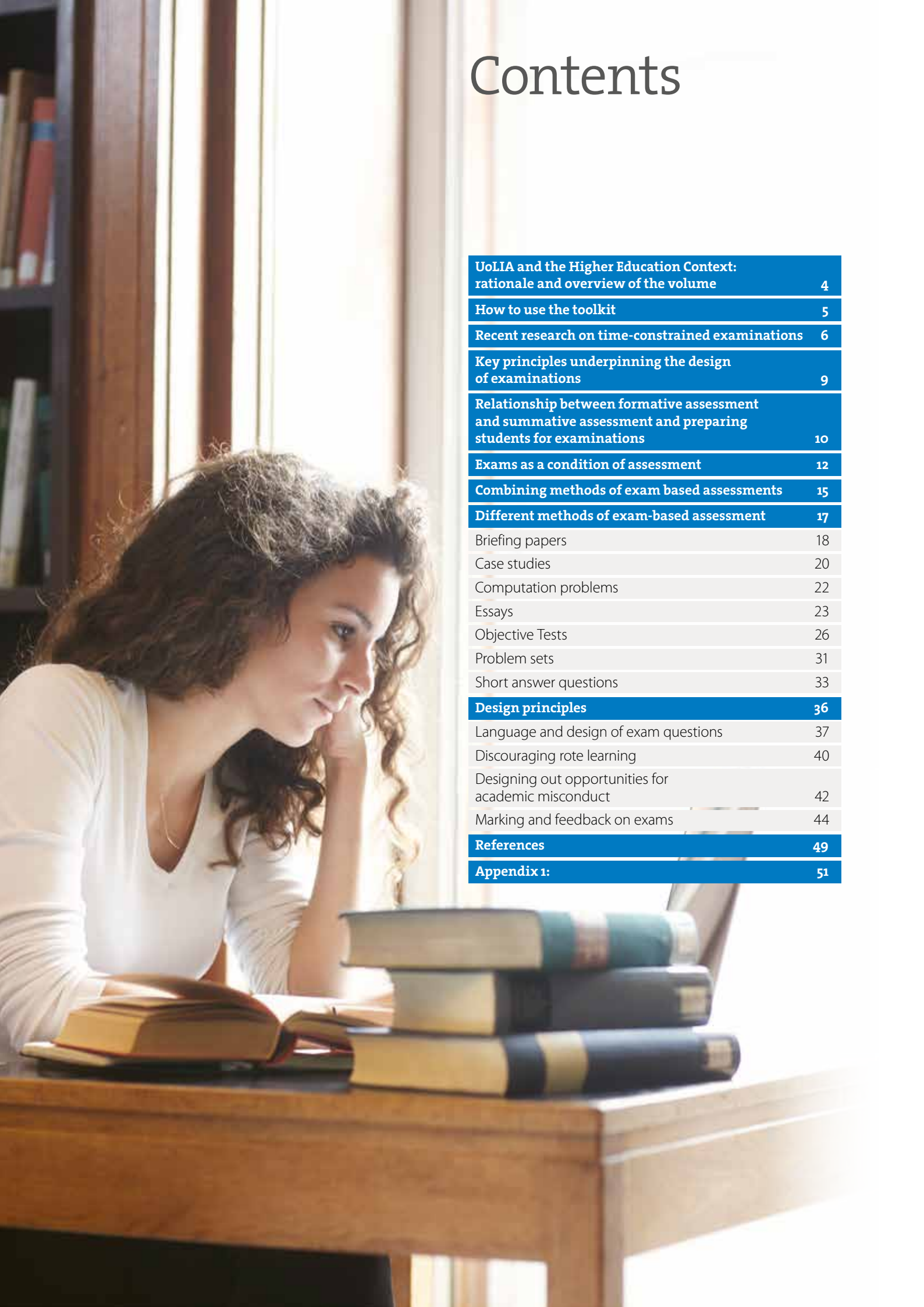
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# UoLIA and the Higher Education Context: rationale and overview of the volume

The University of London International Academy (UoLIA) collaborates with 12 Member Institutions of the University of London to offer over 100 degrees, diplomas, certificates, and individual modules at undergraduate and postgraduate level across a wide range of disciplines and welcomes students onto its programmes from over 180 countries. The smallest of these programmes has an annual cohort of under 10 students whereas the largest extends to as many as 8,500 students. Assessment across such a wide range of programmes with diverse student bodies and disciplinary foundations poses a set of interesting educational challenges broadly encompassed in the following question: What are the most valid, reliable and fair methods of assessment to test the knowledge, skills and disciplinary attitudes that have been acquired on a particular course of study?

In Higher Education Institutions across the UK there have been moves to diversify assessment practices and to move away from what is considered to have been an over-reliance on closed-book time-constrained exams. As a sole form of summative assessment, it is argued that time-constrained exams do not do justice to the range of knowledge bases, skills and disciplinary orientations that students are acquiring in the course of their programmes of study and that they will be expected to demonstrate and use in their future lives. This has been coupled with a recognition that fair assessment, enabling all students irrespective of their backgrounds to succeed, is partly enabled by a diversification of assessment approaches.

In 2014, in line with changes occurring across the Higher Education sector, a working group consisting of members of the Learning, Teaching and Assessment Sub-Committee developed a set of Assessment Principles for University of London International Programmes to provide a set of overarching criteria to guide programme development, approval, monitoring and enhancement. The aim of the University of London International Academy (UoLIA) was to encourage a regular review of assessment methods across its programmes to ensure that they accurately test the intended learning outcomes and at the same time safeguard the academic standards and quality of provision. A significant policy change which emerged from the work of the Assessment Framework Working Group was the recommendation and subsequent decision to move away from the previously specified limits on the weighting of time-constrained exam assessment. The first *Assessment Toolkit (2015)* was developed to provide additional guidance to programme teams on a range of different formative and summative assessment options.

This second Assessment Toolkit breaks new ground in its exploration of time-constrained examinations. It has two main points of departure. Firstly, it acknowledges that in many cases, particularly on large programmes with students distributed across the world, a move away from time-constrained exam-based assessment is not feasible from either a logistical or a resource management perspective. Secondly, and equally importantly, the authors suggest that time-constrained examinations are a valid form of assessment but as educators and examiners we need to recognise that the time-constrained exam is only the condition of assessment; consequently, we need to pay closer attention to what we are asking our students to do during these examinations to demonstrate what they have learned. This is what volume two of the Assessment Toolkit sets out to do. It shows that within the parameters of the time-constrained examination, there are important assessment design choices to be made to ensure that the methods of assessment are valid and fair, and at the same time that there is possibility for creativity and innovation within this classical assessment format.

# How to use the toolkit

*Assessment defines for students what is important, what counts, how they will spend their time and how they will see themselves as learners. If you want to change student learning, then change the methods of assessment. (Brown, G. et al. 1997)*

Assessment is a fundamental part of the learning process and, as this quotation of Brown, Bull and Pendlebury suggests, it has an important impact on how students approach their learning. Our aim here, as in the first volume of the *Assessment Toolkit*, is therefore to provide a framework and a set of tools to enable programme directors, course convenors and programme management teams to

- review assessment on their courses,
- reflect on what knowledge, skill and disciplinary dispositions their current assessment practice is designed to test, and
- offer a range of alternatives that they may want to consider in future redesigns.

The exploration of time-constrained examinations presented here highlights the range of possibilities that examinations offer in terms of different methods of assessment. At the same time, it embeds the discussion of possible methods of assessment under time-constrained examination conditions within the broader context of assessment and feedback practice. This is underpinned by the overarching principle that assessment is an integral part of the learning process and thus needs to be designed with the broader learning aims and outcomes in mind.

The volume is divided into a number of sections, each of which is designed to be standalone but taken together encompass a number of dimensions in the assessment and feedback cycle including

- principles underpinning good assessment design practice,
- the relationship between formative and summative assessment,
- the language and design of exam questions, and
- design which minimises opportunities for academic misconduct.

All of these components are important to consider when conducting a course or programme review. The methods presented are not an exhaustive set. Rather it is hoped that course and programme convenors will have opportunities to share their evolving practice so that, in the future, the possibilities of time-constrained examinations in supporting student learning can be extended.

Given the diversity of programmes and of the student body on the International Programmes and the range of skills that students are developing on their programmes of study including in preparation for future work, it seems likely that, where appropriate and possible, a *combination* of assessment methods would be the most valid way to assess students' learning. Thus, we encourage colleagues to use both assessment toolkits as companion volumes.

# Recent research on time-constrained examinations

Wherever possible, the Toolkit builds on evidence from the literature on assessment. In this section, we consider recent research on time-constrained examinations and explore studies which review the following topics:

- the broad shift in balance from time-constrained exams to coursework,
- affordances of examinations,
- the use of computers for writing in time-constrained exams,
- the impact on exam scores of students' use of marking criteria during revision, and
- students' perceptions of and achievements in exams which combine seen and unseen questions.

## Investigating a move from summative exams to continuous coursework

In a recent review of the literature on assessment formats, Richardson (2015) argues that in the UK and other national systems influenced by UK HE (such as Australia and New Zealand) there has been a shift away from summative assessments to coursework and that this move has been broadly uncontested and under-researched. His findings suggest that students (regardless of gender or ethnic background) tend to get higher marks in coursework than in summative exams but that coursework holds more opportunities for misconduct such as plagiarism, collusion and impersonation. As part of his review, Richardson interrogates gender and assessment performance. He observes that whereas 50 years ago, men were more likely to achieve 'good' degrees than women, since the 1990s, that trend has reversed and women are more likely to achieve good degrees than men. In terms of assessment type, the findings suggest that there are no gender distinctions in terms of students' attitudes to either continuous assessment or summative examinations. However, there is some evidence to suggest that male students prefer objective testing and oral assessment whereas women are more likely than men to express a preference for final projects and dissertations.

## Affordances of unseen, time-constrained exams

Phil Race, writing more generally about assessment, expresses some reservations about unseen, time-constrained exams but does suggest that they

- are relatively economical to administer especially in comparison to other forms of assessment and with large student cohorts,
- offer some equality of opportunity in that the conditions and duration of the examination are the same for all. (Race offers the caveat that illness or other physical challenges may mean that this is not necessarily the case.)
- can be more carefully monitored to discourage misconduct (plagiarism, collusion, impersonation)
- motivate students to 'get down to learning' and to address the areas of the curriculum that they anticipate will be covered in the examination.
- are a familiar form of assessment for both academics and students. (Race, 2009)

## Using computers for essay-based exams

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The use of computers for essay-based time-constrained examinations is an area that is continuing to be explored with recent studies investigating student perception of the merits and challenges of writing essays online under invigilated conditions. Moge et al. (2012) observe that asking students to write essays by hand in examinations is problematic when they spend most of their academic year composing texts on a computer. In two pieces of research, Moge and colleagues explore students' attitudes to typing examination answers. In the first study at the University of Edinburgh, students were offered the opportunity of either writing an exam using a computer (with no access to the internet) or writing it on paper. The vast majority of students (188 of 204) chose to write on paper (with male students being more likely to use a computer). This choice was explained partly by students being risk averse in behaviours related to time-constrained examination. Students reported that they were apprehensive about the process and the reliability of the technology having not used computers in exams previously. Some expressed anxiety that they would spend too long making presentational changes to their texts. The authors argue that all of these anxieties could be addressed through training. These findings were confirmed in a later, comparative study (Moge and Fluck, 2013) which found that students in Tanzania (who had prior experience of computer-based essay examinations) were broadly in favour of using computers to compose essays in examinations, while those in Edinburgh were more circumspect. Students in the latter group expressed concerns about typing speeds, and those who felt they were slow typists were less likely to choose to take an online examination, preferring paper tests instead. The authors argue that the research calls into question the extent to which there is shared understanding between examiners and candidates about what written examinations entail and the expectations around examination essays:

*Exams should not be about getting as much down on paper as possible, they should be about thinking and constructing a good argument. So we would expect students to pause while composing their answers, and hence raw typing speed should not be the most critical factor for success. But the reality as captured from student responses is that basic typing fluency influences student's choice about whether to type or to handwrite much more than any capacity to edit, revise and hopefully improve their text.*

The authors conclude that students need to have opportunities to practice online examinations in advance as well as an awareness of self-perception of typing speeds.

## Impact on marks of working with exam marking criteria

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Another area of recent research in relation to time-constrained examination is the impact of student interaction with marking criteria upon examination scores. Payne and Brown (2011) report that students who have had prior exposure to examination marking criteria perform significantly better (up to 18 percentage points) than those who do not. Payne and Brown argue that while a similar sort of study had been conducted previously by Rust et al., it had only been done with coursework (Price and Rust, 1991; Rust, Price and O'Donovan, 2003). Using an experimental and control group, Payne and Brown (2011) demonstrate that students' performance on exams significantly improved when they were provided with opportunities to

- discuss examination criteria with academics,
- apply the criteria to sample exams in a marking exercise and then
- analyse how and why they allocated marks to the texts.

The experimental group were given the examination criteria in advance of the exam and they participated in a workshop on applying the criteria. They were also allowed to use the criteria in their revision. The control group were not given the exam marking criteria in advance of the exams. In follow up focus groups, representatives from the experimental group reported that they felt exposure to the marking criteria significantly improved their exam preparation and performance and they reported feeling more confident as they prepared for their examinations than they had for past tests.

## Combining 'seen' and 'unseen' questions in essay-based exams

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Finally, and of particular interest to those wishing to innovate within the context of time-constrained exams, Reimann and Robson (2013) explore the impact on student learning and achievement of the inclusion of seen questions on a final exam in economics which mainly comprised unseen questions.

The 'seen' question was introduced as part of a Student-Centred Learning initiative (SCL) and was marked using the same criteria as the unseen questions. The seen questions were presented to students at the start of the academic year, but were on topics that were not formally taught on the course. Part of the motivation for including the seen questions was to encourage students to do independent research and to undertake self-directed reading beyond the texts set on the syllabus. Reimann and Robson, using data collected over 3 years, found that students performed better on the SCL questions than on the standard unseen questions in the same exam. The authors looked closely at potential influencing factors (including what types of students selected the option of a seen question and students' performance on other elements of the assessment) and suggest that one possibility is that the use of SCL questions 'may mean that SCL provides students with an opportunity to develop and demonstrate understanding and skills which are neglected by other examination questions.'

Students reported that seen questions of this nature enhanced their independent research skills; however, most did not opt to do 'seen' questions on more than one module, largely due to concerns about workload. In an earlier study, Reimann (2011) reported that the take up of the seen question was low and students reported that they were concerned about their lack of familiarity with the format. However, those who attempted the seen question reported enjoying the autonomy that the option afforded. The authors conclude that the inclusion of seen questions that require independent research contributes to student learning and leads to enhanced outcomes. It also enables increased student choice and agency without academics losing the majority of the benefits of time-controlled examinations.



# Key principles underpinning the design of examinations

Given that assessment is integral to the learning process, effective assessment design should enable students to work towards and successfully achieve the intended learning outcomes (ILOs) for the course. These encompass both disciplinary knowledge, skills and attitudes and a broader range of transferable skills and employability attributes. Volume 1 of the Assessment Toolkit outlined key principles that should inform the design of university assessment. These are summarised below with the focus on how they relate to time-limited examinations in the specific context of International Programmes distance learning programmes.

As with any other assessment condition, time-constrained examinations need to be valid, reliable, fair, accessible and inclusive. They should also be manageable in the context, in this case, International Programmes delivered across the world, in a variety of settings, to both individuals and student cohorts of varied sizes.

A **valid** assessment allows students to demonstrate that they have achieved the learning outcomes for the course and enables their performance in relation to these outcomes to be evaluated. In other words, it is appropriate for the intended purpose.

**Reliable** assessment generates results that are accurate and consistent across a cohort, over time and between markers. Reliability of time-limited examinations may be affected by the structure or wording of questions, the suitability of the assessment tasks to the particular student cohort and the way in which students are prepared for the examination.

**Fair** assessments give all students a reasonable chance of succeeding. Students should know what to expect and be adequately prepared for both the content and the method of assessment. Making past papers available and providing opportunities to practice and receive feedback will help. Marking processes and criteria should be communicated to the students and markers should be adequately prepared.

As in all parts of the programme, every effort should be made to ensure that assessment is accessible to all students. This means working within institutional and legal guidelines on equal opportunities or disability and providing support or alternative modes of assessment where necessary. The International Programmes Inclusive Practice Policy is available at [londoninternational.ac.uk/sar](http://londoninternational.ac.uk/sar)

Additional principles of assessment set out by Bloxham and Boyd (2007) include

- **Effectiveness** – examinations should encourage high quality responses and motivate ‘deep approaches’ to learning and revision.
- **Comparability and consistency** – there is an expectation of consistency and comparability of standards and approaches to examination within and across programmes. This might be of particular importance to the International Programmes given its range of disciplines and course sizes and the diversity of its student intake.
- **Equity** – students should have equal opportunities to display their learning. Diversity of question types and combination of methods with time-constrained exams can help ensure an inclusive approach to assessment.
- **Practicability** – this principle applies to the experiences of both academics and students. When students are distributed across the world in varied study environments, there may be concern over the availability of suitable examination rooms, invigilation or equipment. This may influence the range of time-constrained examination tasks that can be offered. (For example, it may not be possible to offer Open Book exams because it is impractical to either provide texts in the examination room or to check the materials that students have brought with them.)

Decisions about assessment methods should also take account of the demands on staff time for administration, marking and any associated meetings. Changing the form of assessment may mean that staff require additional and ongoing professional development.

- **Transparency** – regulations, rules, criteria, marking schemes, guidance and general information should be clear and accessible to students, teachers and examiners. This is a fundamental principle of accountability and is particularly important to participants studying at a distance and in a range of different contexts. It is crucial to make the elements of time-constrained examination transparent to everyone involved, particularly when changes to question and assessment design are introduced.

# Relationship between formative assessment and summative assessment and preparing students for examinations

This section first explores the relationship between formative and summative assessment considering its integral relationship to overall course design and fundamental impact on the learning of students before turning to a discussion about preparing students for exam-based assessments.

## Formative and summative assessment

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Contemporary notions of course design place assessment at the heart of the learning process rather than treating it as a bolt-on to assess students' performance with a resulting mark at the end of a particular unit or module. The pedagogy of constructive alignment, a course design approach elucidated by John Biggs (1996, 2003) highlights the importance of aligning the intended learning outcomes (ILOs) of a course (that is, what students should be able to do in terms of knowledge, skills and disciplinary attitudes by the time they have completed a particular course or programme of study) with the methods of assessment which should be designed to test whether the student have actually achieved these outcomes. The third element in this triad is the teaching and learning activities on a particular course which should support and enable the students to develop their learning in line with the course ILOs. As the name suggests, this orientation to course design is underpinned by a constructivist approach to education which places students at the centre of the learning process. Proponents of constructive alignment contend that students learn more effectively when the different elements of a course are logically and clearly aligned.

As suggested above, the way students learn is fundamentally shaped by the structure of assessment on a particular course. Thus, course convenors/programme directors need to be mindful of this when selecting methods of assessment and in thinking about the relationship between formative and summative assessment. Educational literature differentiates between formative and summative assessment – formative being more focused on the process of learning itself, sometimes referred to as assessment *for* learning, enabling students to develop their learning through assessment and feedback. By contrast, summative assessment is considered to be assessment *of* learning and thus constitutes points of assessment in a student's studies that contribute to their final grade on a particular course or programme of study.

Opportunities for formative assessment are generally considered to be good practice in the overall design of a course as they give students the chance to develop their knowledge and skills as well as have some experience in trying out a particular form of summative assessment before it counts towards their final grade. Thus, formative assessments give students opportunities to experiment, make mistakes and take risks in what might be considered a safer space for learning and development. Others have argued that in certain learning contexts students are less likely to be motivated to take formative assessments seriously because they do not count. It is therefore important that educators explain clearly to their students the rationale behind the assessment on their course and how work on formative assessments will enable students to do better when the assessment 'really' matters.

In practice, the division between formative and summative assessment is not as clear-cut as the two notions might suggest. Students may achieve marks that contribute to a final grade on a developmental piece of work especially if that summative work is accompanied by feedback that not only justifies the grade but also provides a clear indication of how the students can improve and develop. This approach may be attractive in a distance learning context where students are juggling a complex set of different priorities and are distant from a physical site of learning. Allocating a small portion of marks to particular assessments may encourage students to engage and foster a more progressive approach to learning.

## Preparing students for exam-based assessments

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Preparing and enabling students to succeed in their exam-based assessment involves three key factors. Arguably these are common to all forms of assessment

1. Ensuring there is a valid link between the intended learning outcomes and the design of the exam.
2. Ensuring students have the opportunity to try out the particular forms of assessment and question types in a time-constrained situation in advance of the exam itself. (Such opportunities might be offered as formative assessments including optional activities which may be posted on the virtual learning environment (VLE)).
3. Ensuring that formative assessments are integrated into a process of feedback and development for students.

The first two factors were explored in the earlier part of this section. The focus of the remainder is on the third point. Students learn from formative assessment both by experiencing the specific form of assessment which enables them to develop and test particular areas of knowledge and skills as well as from the feedback they may receive from teachers and peers alike. Nicol and McFarlane-Dick (2006) citing Sadler identify the following three principles as critical to students' future learning. Students need to know

1. What good performance is (clarity about goals and marking criteria)
2. How current performance relates to good performance (be in a position to compare their own performance against what good performance would constitute)
3. How to act to close the gap (have clear indication about the steps that need to be taken to close the gap).

Obviously, the nature of the feedback will depend on the method of formative assessment and the size of the cohort and may include

- individualised feedback from the teacher on a piece of work,
- peer feedback from other students on the course,
- a general statement of feedback for all students or
- computer generated feedback from the VLE.

As far as possible, students need to understand how they performed in line with clearly specified marking criteria. They also need to be able to compare their own performance against what good performance would constitute. To this end, course teachers might wish to post annotated exemplars on the VLE. Finally, students need to have clarity about areas for improvement and also the steps that need to be taken in order to improve their performance.

# Exams as a condition of assessment

Exams are often referred to as if they are a specific means of assessing learning. For example, it is not uncommon to hear that a course 'is assessed by an exam and 2 essays.' However, time-constrained exams are a condition of assessment rather than a method; the condition includes restrictions about duration (usually 2–3 hours), location (often an invigilated setting), identification (is the identity of the candidate verifiable?) and access to materials (open or closed-book). In this section, we consider opportunities for varying and experimenting within the bounds of time-constrained exams. Specifically, we will consider

- Location
- Merits of Seen questions
- Closed and open book exams
- Timing

## Invigilated vs take home

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In terms of the **location of the exam**, it may be

- in an institution/exam centre or similar setting where it will be invigilated
- at a place of the candidate's choosing (at home, for example).

An examination taken outside of an invigilated setting is often referred to as a 'take-home exam' and the questions are released to the candidate at an appointed time via email or a VLE. Generally, the exam is required to be completed within a period of 24–96 hours. Often in a take-home exam, candidates can make use of a range of materials when developing their answers.

Issues to consider in relation to take-home exams include

- Will students who have caring responsibilities or inflexible employment be disadvantaged?
- Has it been made clear to students how long they are actually supposed to spend on the examination (for example, out of 24 hours should they be working for 6–8)?
- What is the standard that is expected for successful responses? Is it higher than that of a 3-hour, invigilated exam? If so, do students understand this and are exemplars made available?

## Unseen or Seen questions

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Prior knowledge of questions also offers options for variety within time-constrained examinations. Exams may comprise

- **Unseen** questions – a student will not have prior sight of these.
- **Seen** questions – a student will know the questions in advance.
- A mix of **Seen** and **Unseen** questions. (See **page 8** in which we discuss work by Reimann and Robson (2013) who have researched the impact of exams which combine Seen and Unseen questions on student learning for Economics students at the University of Durham.)

## Open book or closed book

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Additionally, there can be variation in what materials students can bring with them to the exam:

- **Closed book:** In closed exams, students are not allowed to bring any supporting texts with them.
- **Open book:** In this form of exam, students can use a book or text (such as article, chapter, poem, play, legal text, historical case, etc.) This may be a primary source (such as a novel or play, a legal text, a historical case) or a secondary text. The material may be supplied by invigilators in the exam OR a student may bring their own copy.
- **Open Notes:** This is a variation on Open Book tests; in this instance, students can bring their own notes with them into the exam as an aide memoire containing information such as essay plans, illustrative examples, references, diagrams or structures. Usually, there is a limit to the number of pages that students can use. An alternative approach is to limit the number of words a student can bring in and to ask for the notes to be submitted in advance of the assessment so that they can be checked for word length (Bloxham and Boyd, 2007).
- **Open Book Open Web:** Williams (2004) argues for the use of students' own materials as well as access to the internet to enable more meaningful and authentic assessment tasks within timed conditions.

## Advantages of open book or open notes exams:

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- They can test students' ability to apply information rather than simply reproduce it. Examiners may be able to expect students to produce more sophisticated, detailed responses.
- An open book exam may have enhanced validity because it may be better able to test learning outcomes. It may reflect real world activities more fully.

## Preparing students

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Students will need clarity about

- what they can bring with them: notes, books, annotated texts?
- how much material they can bring
- how much time they are expected to spend consulting their materials balanced against how much time they should be planning and writing (Cullen and Forsyth, n.d.)
- how to prepare themselves and their materials, and
- the purpose, format and expectations of an open book exam.

### International Programmes example: The MA in Refugee Protection and Forced Migration Studies

The examination for the **MA in Refugee Protection and Forced Migration Studies** combines Seen questions with an Open Notes approach. On this programme, the summative assessment of the 2 core modules is a 3-hour exam. Students are provided with the essay question 2 weeks in advance and can take 2 A4 pages of notes into the exam hall with them.

## Duration

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Time-constrained exams are usually operated for a fixed time duration, but this, too, can vary:

- 2–3 hours – this is a typical time period for a half or full module
  - 6 hours – this constitutes a full day exam
  - 24–96 hours – this time span is typical of take home exams. As discussed above, in this setting, students are not expected to be working on the exam for the entire period.
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## Timing

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Typically, in essay-based exams, students would be expected to use between 45 and 60 minutes to plan and write an essay. Obviously, this may vary according to discipline, type of essay, and whether the question is Seen or Unseen. The 45–60 minute timing allows students time to select a question, think about it, make notes and plan their essay, write it and review their work.

For objective test and short answer questions, students might be expected to complete 10–50 per hour, depending on the complexity of the questions and, in the case of Short Answer Questions (SAQs), the length of the answers. These types of questions can be trialled in advance to help estimate the time required to complete them.

It is a good idea to indicate to students roughly how long they are expected to spend on different types of questions and sections of the examination.

## Design of the exam: question types

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Throughout this toolkit, we describe different types of question formats that could be combined to create exams that test different components of a syllabus and potentially examine different skills and levels of understanding. These include problem sets, objective test questions, essays, short answer questions, computation problems, case studies and briefing papers. Where possible, we include examples of the types of exams used on International Programmes courses.

In the section below, we discuss approaches to combining question types and the affordances of certain combinations within a single examination.

# Combining methods of exam based assessments

Combining assessment methods helps to ensure that all the possible outcomes for the module/course or programme are assessed and that students can experience and respond to diverse approaches and develop a range of abilities. Including varied assessment tasks in time-constrained examinations will contribute to diversity across the programme.

As suggested in Assessment Toolkit I, when designing assessment across a module or a programme, it is useful to consider

- how the different methods contribute to the coverage of content
- ways in which the methods assess different learning outcomes
- whether the combined methods offer students the opportunity to demonstrate a range of skills, strengths and capabilities
- the extent to which the breadth of methods makes the module/programme more inclusive and accessible
- how different methods complement, contrast or build upon each other
- the implications of different methods for marking and scalability
- the effects of weighting when combining methods
- the range of feedback formats.

## Mapping an assessment combination

A mapping exercise may be useful for programme leaders considering a review of examinations across the programme. It helps to lay out the combined potential of a set of examination tasks or question types across a module or programme. It may also identify any areas of the curriculum that are under assessed and create opportunities for innovation.

One approach to mapping is to set the learning outcomes and/or desired learning goals across the top of the grid and the different assessment types down the side. In each box, the extent to which each outcome/goal is addressed by a particular method is indicated.

For example, the grid below analyses the extent to which an essay, objective test, SAQs and computation problems are used in combination and considers to what degree they assess each of the key course attributes.

	Ability to develop a coherent argument	Understanding of a broad range of topics	Capacity to critique and build on module content
Essay	xxx	x	xx
Short answer questions		xxx	x
Objective test questions		xxx	x
Computation problem		x	xx

Depending on the learning outcomes of a particular course it may be appropriate to include

- different question types in a single examination
- different methods of assessment on an individual course.

**International Programmes example:** Students on the *Legal System and Method* module which forms part of the LLB take a three hour and fifteen-minute unseen examination paper divided into three parts:

Part A of the examination is a compulsory set of questions based on a case note activity (the case citation is made available to students in October and students submit a case note in March);

Part B requires students to answer two essay questions out of eight;

Part C is a set of compulsory problem questions on a statute that has been previously made available to students on the VLE

## Weightings

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Weightings can be used to place emphasis on particular assessment tasks and these should be communicated clearly to students. This is particularly important within a single examination as the weighting gives students an indication of time to be spent on the different tasks.

## Scalability

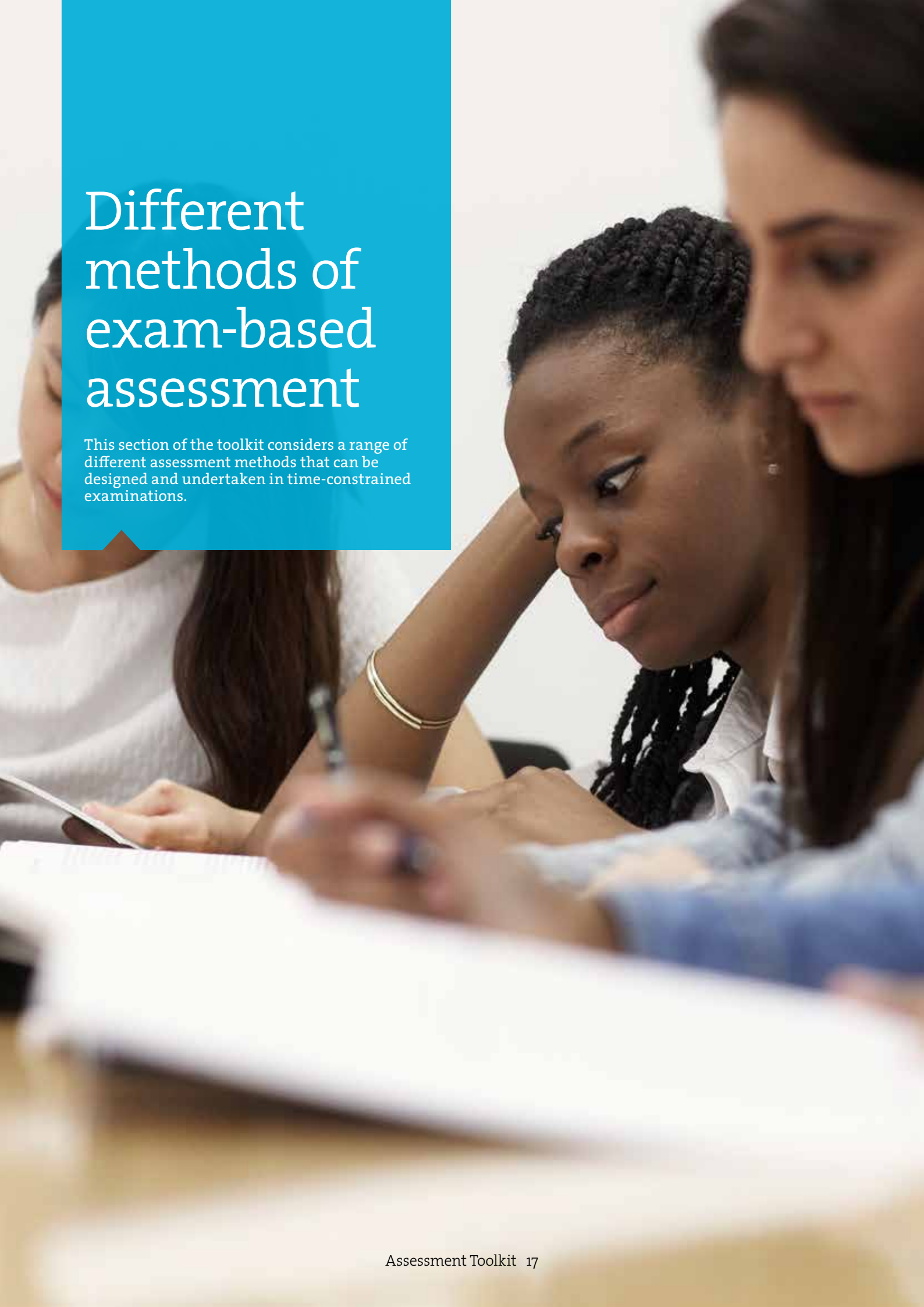
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Depending on the numbers of students on a programme or module and the resources available to the teaching team for marking and assessment, scalability may be an issue to consider in relation to breadth of assessment. Some assessment methods, such as objective test questions, SAQs and computer based assignments, may be more scalable than others, simply because they take less time to mark and provide feedback. They may, however, take longer to construct in the first place; even MCQs can be challenging to write and test for validity, so this needs to be factored into the overall planning. These methods tend to be more scalable when collected into banks of items that can be reused.

Essays and other types of extended written composition tend to be less scalable, but they might be more valid for the syllabus that is being examined.

Scalability depends, in part, on the number of people on the teaching team and whether the type of examination lends itself to the use of multiple markers, such as teaching assistants. This again relates to the nature of the assignment; where marking is likely to have a significant subjective element (as for essays) it is likely to be more difficult to ensure consistency across a large cohort.



A photograph of three students sitting at a desk, focused on their work. One student in the foreground is writing in a notebook, while two others look on. The scene is brightly lit, suggesting a classroom or study area.

# Different methods of exam-based assessment

This section of the toolkit considers a range of different assessment methods that can be designed and undertaken in time-constrained examinations.

# Briefing papers

## Description

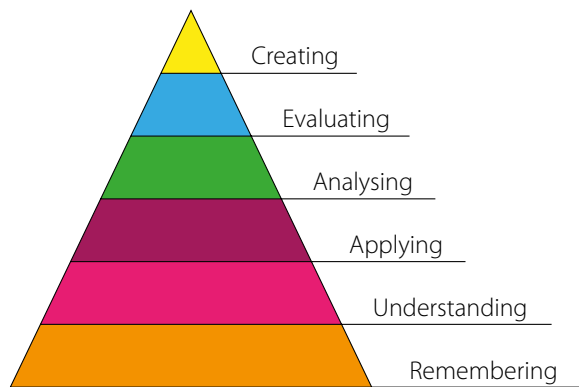
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A briefing is usually prepared for someone in a senior role within an organisation. The subject may be anything that the organisation deals with, although often it will be an issue that requires a decision or that is subject to debate. A briefing can be written or oral and either could be used as an assessment task. The focus here is on the written briefing note or briefing paper.

## Affordances/Strengths/Challenges

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A briefing paper is a suitable assessment task if the intended learning outcomes of the course fit the nature of this type of writing. Although recall of facts is a requirement, preparing a briefing paper goes beyond this and requires the application of knowledge and the full range of cognitive functions in the Bloom/Krathwohl taxonomies.



Krathwohl's (2002) revised levels of learning hierarchy based on Bloom's (1956) (available at [designingforlearning.info/services/writing/ecoach/tips/tip75.html](http://designingforlearning.info/services/writing/ecoach/tips/tip75.html))

A briefing paper

- allows students to demonstrate their ability to select and structure information,
- demands an awareness of risks, sensitivities, different viewpoints and interests, and
- requires the writer to make a recommendation or reach a conclusion.

Clarity of expression is important but the aim is to produce something concise, so bullet points may be appropriate.

This would be an authentic assessment task, requiring skills that students are likely to perceive as valuable beyond the course.

## How to design an inclusive and effective assessment of this type

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This type of question lends itself to a variety of conditions – seen or unseen, open book or open notes.

One challenge is to give a context for the briefing that is clearly new to the students but not entirely unrecognisable.

The general guidance on designing examination questions on **page 9** applies to this assessment task. That is, the task should be defined clearly, with the wording kept as simple as possible. Unnecessarily complex sentence structure and ambiguous vocabulary should be avoided.

## Discouraging rote learning

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The importance of accurate information in a briefing could tempt students to memorize and reproduce their notes. To discourage this, teachers could emphasize that reproducing chunks of text is unlikely to gain candidates high marks and that this type of question tests the ability to select and present information to suit the audience and context, rather than simple recall. Perhaps the best way to convey this message is through the feedback on formative briefing papers and by sharing the marking scheme with the students in advance.

## Safeguards and strategies to avoid and detect misconduct

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The suggestions in the Avoiding Misconduct section apply to briefing papers. In particular, giving students formative opportunities to practise working with the briefing paper format and discussing revision strategies with them should help increase student confidence and minimise anxiety about this examination genre.

Similarly, if the examination condition is Open Book or Open Notes, it is important to offer clear guidance on what is allowed: Is there a limit on the quantity or type of 'notes' than can be taken into the examination?

## Approaches to marking and feedback/feedforward

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As with other assessment tasks, students should have received feedback on formative briefings before writing one in a summative examination.

It may be easier to prepare a model briefing than a model essay and a briefing may thus be slightly quicker to mark, with less variation between markers. In very large courses, this may allow the use of larger teams of markers without loss of consistency, although moderation will still be needed.

The marking scheme should reflect the ILOs and what students have been told is expected. The factual content depends on the course and topic but marking is also likely to take account of the nature and purpose of this type of writing; the briefing needs to be: concise (every word counts and padding should be avoided); clear (sticking to the point and only including information the reader needs); reliable (information must be accurate; gaps or unanswered questions must be flagged up); easy to read and refer to (structure, use of language are important).

## References

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Writing for Government, University of Victoria notes for students: [web.uvic.ca/~sdoyle/E302/Notes/WritingBriefingNotes.html](http://web.uvic.ca/~sdoyle/E302/Notes/WritingBriefingNotes.html), Accessed November 14 2016

# Case studies

## Description/Definition

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Case studies usually involve real-life situations and often take the form of problem-based inquiry. They have long been used as a method of teaching, learning and assessment in professional education contexts but have also become increasingly widespread in other academic disciplines due to the authentic nature of the activity and the higher level critical thinking skills that they are designed to assess. Case studies are commonly used as a form of assessment in business, law, medicine, science and engineering. They are often designed as group assessments, but they can also be framed as individual assessments. The complexity of the assessment will be shaped by the time allocated during the exam, the level of the students and the knowledge and skills that students are expected to bring to bear in a time-limited situation to solve a problem or address an issue.

## Affordances/strengths/challenges

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There are many potential strengths of this method of assessment:

- Case studies enable students to apply their knowledge and skills to real-life situations.
- They can be undertaken individually or as a group. Any time-constrained dimension of the assessment could also be undertaken in groups or individually or in combination.
- They may enable the teacher/examiner to offer some choice to the individual or group as to the particular case study they wish to work on.
- They can involve a single assessment point or multiple assessment points during the course of study. Multiple assessment points enable the teacher to assess progressively the development of a range of different skills – from the identification of the problem, development of an inquiry, interpretation and presentation of results. In the case of multiple assessment points students can also receive formative feedback at different stages in the project. Moreover, students are better able to demonstrate higher level learning skills.
- Depending on the level of the students, the discipline and the task at hand, case studies could be designed to be undertaken in an exam of varying lengths (2–3 hours, 24, 48, 72 hours) and in an open-book format.
- Case studies call on students to demonstrate a range of different skills – selection of information, analysis, decision-making, problem-solving and presentation. In the case of a group-based approach students need to demonstrate their ability to communicate effectively and collaborate.
- Students may be asked to present conclusions in written or oral formats. The use of online technologies may enable the incorporation of a range of multi-media.
- Depending on the discipline and the inquiry, case study work encourages students to draw on their own background knowledge and experience.
- Case study work may be attractive to students and employers alike as it supports the development of a range of transferable skills which can build students' confidence as they enter the labour market.

## Possible challenges include

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- Depending on the nature of the case study and of the form of inquiry, it may be hard to offer this method of assessment to large cohorts of students.
- Depending on the timing of the exam and whether the students have the opportunity to do any pre-examination work on the case study teachers need to have realistic expectations about what actually can be achieved in a time-constrained examination. As such some forms of case study work might not be suited to this condition of assessment and may not lend to adequately testing certain higher order learning skills.

## How to design an inclusive and effective assessment of this type

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From an inclusive design perspective, case studies are an attractive form of learning and assessment. Students may be given a degree of choice over their case study and thus be in a position to bring their diverse backgrounds and experience to bear in working on the case study. If students are not involved in case selection it is important that care is given to ensure that the chosen case studies are accessible to all students taking the course/exam.

A time-constrained take-home exam or a lengthened time-constrained exam taken in a particular setting may enable examiners to build inclusive practice into the design of the learning from the start. A longer exam not only allows the testing of higher level thinking skills but it also gives more students the chance to complete the assessment in the allotted time.

In the case of group work, there is a range of assessment possibilities to consider. For example, the students may complete the formative work as a group and even elements of summative work but carry out the time-constrained controlled assessment individually. Students may be asked to rate their contribution and the contribution of other members of the group through completing a reflective log or working with one of a number of online group assessment tools such as Webpa ([webpaproject.lboro.ac.uk](http://webpaproject.lboro.ac.uk)) and Teammates ([teammatesv4.appspot.com](http://teammatesv4.appspot.com)).

As in all methods of assessments teachers/examiners need to have clarity about what skills they are seeking to test in constructing the case study assessment and what form they are expecting students to present their findings in – this may involve summarising and selecting relevant quantitative and qualitative data from a package of materials or data-set (that may or may not have been) pre-assigned as well as synthesising and evaluating these materials and data. In terms of effective design case study tasks or scenarios should be chosen for which there is no one correct answer, the learning challenge thus tends to be focused on working with complexity and weighing up different possibilities. Course convenors may also want to consider assigning the exam tasks or questions two weeks in advance of the time-constrained exam to enable students to carry out research and preparatory work in advance of the examination.

## Safeguards and strategies to avoid and detect misconduct

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In the case that students are taking time-constrained exams in a particular setting and working on an unseen case study, it is clearly easier to minimise opportunities for misconduct. In the case that students are working in groups or individually and undertaking take-home exams, teachers are in a position to check that the work is indeed the work of particular students. They can do this by building in opportunities to assess work at several points in the course of the project either formatively or summatively in advance of the time-constrained examination. In a distance-learning context this can be done by asking students to upload work and discussions to a virtual learning environment. This would also be good practice as teachers can then feed in positively to the development of the case study work. This choice will depend on the level of the students, the learning outcomes of the course and what exactly the time-constrained exam is designed to assess.

## Approaches to marking and feedback/feedforward

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The marking criteria will depend on the knowledge and the skills that the particular case study exercise is designed to assess. The weight attached to different aspects of the assignment should reflect the importance of these different aspects and be clearly communicated to the students in advance of the assessment. In the case of a smaller cohort of students, the teacher should be in a position to give 'feedback' to justify the grade that the students have received as well as feedforward, that is individual/group guidance for future learning. In the case of a large cohort of students the teachers may choose to give some general feedback highlighting the strengths as well as areas for improvement that were reflected in the work of the cohort of students.

# Computation problems

## Definition/description

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This type of examination question requires candidates to find an answer or solve a problem using calculations.

## Affordances/strengths/challenges

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Computation problems enable students to demonstrate their

- Ability to apply theories, formulae or methods to a new context
- Understanding of when specific formulae or methods should be used
- Ability to perform the required calculations
- Ability to document working processes

Rote learning is not a particularly useful preparation for this type of task.

This can be seen as an authentic assessment task.

## How to design a valid and inclusive assessment of this type

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Generally, the context within which the problem is located should to be new to the students: clearly different from what they have seen in class or homework, but at the same time recognisable as a particular type of problem.

As with other types of question, it is useful to have someone to try it out to ensure that the wording is clear, that the calculation is indeed possible, and that the time allocation is reasonable. If necessary, the question and/or the marking scheme can then be adjusted.

It is important to ensure that students understand what is expected in the examination and that they have opportunities to practise the required types of calculation and receive feedback and advice on revision/preparation.

## Safeguards and strategies to avoid and detect misconduct.

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A number of the suggestions in the section on Designing out Opportunities for Academic Misconduct on **page 42** apply to computation problems. Measures to prevent copying in an exam hall setting may be appropriate, such as producing several versions of the exam, with questions in different orders, making it less likely that students could casually glance at a candidate near them and reproduce their answers.

## Approach to marking

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Marking rubrics and model answers may be easier to create for computation problems than for essay-style questions, and inter-marker reliability is usually greater.

Weightings for different elements (e.g. solution and working process) should be clear in the marking scheme and communicated to students in advance of the examination.

# Essays

## Definition/Description

An essay question requires students to compose a response in a sequence of sentences and paragraphs. Although most essays share a basic structure – introduction; main body; conclusion – there are disciplinary variations within this. Traditions may also vary between national education systems (e.g. the French and English traditions differ). Therefore, given the international cohort on the International Programmes courses, it is useful to establish a shared understanding of what is meant by the term ‘essay’ and what is expected in terms of an examination response.

Essay questions allow different individual student responses to achieve similar marks and therefore usually need to be assessed by someone with expert knowledge of the field.

## Affordances/strengths/challenges

Essay questions lend themselves to open or closed book conditions and examination questions may be *Seen* or *Unseen*.

- Essay questions are suitable for assessing higher order learning, as the figure below suggests. They can test the ability to analyse, argue, evaluate and create.

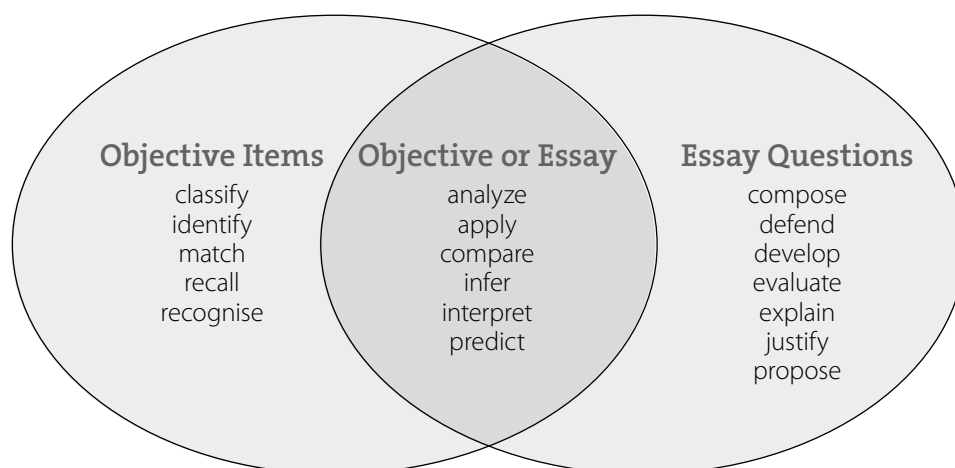


Figure 1: Potential uses of essays and/or objective tests (Reiner et al., 2002)

- In responding to essay questions, students have to create something of their own, rather than selecting a response as they would in an MCQ test.
- Essay questions enable students to demonstrate both their knowledge of course content and their ability to reason and argue with it.
- They allow students to demonstrate their skills as writers and therefore can be used to assess written communication.
- They allow different “good” responses.
- Guessing is unlikely to be a useful examination strategy for essay questions.

Perhaps most importantly, essays do not automatically test higher order thinking such as evaluation or analysis; they only do so if the question is designed to require this. Reiner et al. (2002) point out that a question such as, “What are the major advantages and disadvantages of essay questions?” invites recall of knowledge, and that the question would need further development to require students to use their knowledge, for example: “Given their advantages and limitations, should essay questions be used to assess students’ abilities to create a solution to a problem?” (p 12.)

## How to design a valid and inclusive assessment of this type

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As with other question types it is advisable to start with the learning outcomes that are to be assessed in the examination. It is a good idea to try to word questions so that they align with the verbs in the learning outcomes.

Ideally, the question should

- Define the task clearly. A very open question gives students more creative freedom but can also allow them to redefine the question to focus on the material they know best.
- Indicate the scope – limiting it to something achievable in the time available so that the task is reasonable and fair.

It may be desirable to indicate the required essay structure within the question but this may also limit the variety of responses.

Additionally, the wording should be kept as simple as possible, avoiding unnecessarily complex sentence structure or vocabulary that might exclude some candidates.

For the examination to be fair, students need to know what to expect. This means making sure they understand the conventions of essay writing in the discipline. Additionally, students whose prior education has been outside the UK may have experienced a different tradition of essay writing. There may, for example, be differences in desired paragraph length and structure, use of personal pronouns, or whereabouts in the essay to state opinions.

As with other methods of assessment, a draft→share→try out→review process among course or programme teachers is ideally needed. Further review after the examination can feed into the design of future essay questions.

## Safeguards and strategies to avoid and detect misconduct

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Wherever possible, designers of exams, should aim to create questions that

- require analysis and opinion rather than description and
- require students to apply theories or concepts in a novel context.

Questions that invite regurgitation of memorised text are best avoided and these types of responses should not be highly rewarded by the marking scheme. Additionally, students' fear and anxiety about taking essay-based examinations could be minimised by ensuring that they

- know what is expected,
- have opportunities to practice essay writing
- receive feedback on formative essays
- discuss revision strategies, and
- understand what constitutes misconduct and are aware of the possible penalties.

The use of essay mills or other outside help may be a concern when essay questions are seen in advance. However, it is quite difficult to memorise and reproduce a complete essay under timed conditions, without making errors that reveal the cheating. If the examination is Open Book or Open Notes, it is important to give clear guidance on what is allowed. Is it permitted to pack a book with post-it notes, for example? Is there a limit on the quantity of 'notes'?

**International Programmes example:** The summative assessment on the two core modules of the **MA in Refugee Protection and Forced Migration Studies** consists of a three-hour written examination. Students are provided the questions two weeks in advance of the examination and permitted to take two sides of A4 notes into the examination with them.



## Approaches to marking and feedback/feedforward

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The fact that different responses can achieve similar marks makes it more difficult to design the marking scheme and reduces reliability in marking. Furthermore, there is an element of subjectivity in marking essays and assessors may be influenced by personal preferences or the legibility of answers.

The variety of response that the essay form encourages means that a model answer, though a useful guide, cannot be definitive. A common approach to marking examination essays is to prepare a set of descriptors outlining broad levels of achievement. These may or may not include weightings to indicate the relative importance of different areas. Some institutions offer 'generic' rubrics for individual programmes to adapt.

To maximise consistency between multiple markers, time should be allocated for both a pre-marking standardisation exercise and either moderation or double marking.

# Objective Tests

## Definition/Description

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Objective tests require students to identify correctly one or more predetermined answers to a question. Questions can be designed to be relatively quick to answer and therefore offer the opportunity to assess students' breadth of understanding of a topic or course.

The most common objective question types are

- Multiple choice questions
- True/False
- Matching
- Multiple response questions
- Graphical hotspot

## Multiple choice questions:

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A multiple choice question (MCQ) is made up of a 'stem' which articulates the question and a set of answer options. Amongst the options is at least one correct response (a 'key') and one or more incorrect responses ('distracters').

### Example 1: MCQ

Who was the longest serving British prime minister?

- A. Robert Walpole
- B. Winston Churchill
- C. Margaret Thatcher
- D. David Lloyd George
- E. William Ewart Gladstone

The 'key' in this example is option A and the distracters are B, C, D and E.

### Example 2: MCQ

In a world of two goods,  $x$  and  $y$ , the price of  $x$ , the price of  $y$  and income all double. What will happen to the quantity demanded of  $x$  and  $y$ ?

There will be no change in the quantity demanded of either  $x$  or  $y$

- (b) There will be an increase in the quantity demanded of both  $x$  and  $y$
- (c) There will be an increase in the quantity demanded of both  $x$  and  $y$  only if they were both normal goods
- (d) There will be a decrease in the quantity demanded of both  $x$  and  $y$  only if they were both gross substitutes.

From EC1002

There are a number of permutations for even basic format MCQs both in terms of how the question is constructed and the instructions to students. Variations on the basic MCQ include:

### A. Multiple response

This is a variant of the standard MCQ format which contains more than one correct response.

#### Example 3: Multiple response questions

Which of the following trees are native to the UK?:

- A. Silver birch
- B. Cedar
- C. Poplar
- D. Alder
- E. None of the above

The 'keys' in this example are options A and D and the distracters are B, C and E.

Multiple 'keys' increase the challenge of the question, because students cannot use a process of elimination to find the single correct answer. The use of 'none of the above' and 'all of the above' as well as options which include some combination of other responses [such as 'e) a and d'] also increase the complexity and usually the difficulty of the question. However, these options should be used with caution. They can confuse students and overcomplicate a question.

### B. True/False

True/false questions require the test taker to indicate whether a statement is true or not.

#### Example 4: True/False

The National Assembly for Wales was established in 2000. True False

(The answer is false.)

### C. Matching questions

These require students to link items from one set to those from another. Matching questions ask test-takers to consider relationships, hierarchies and groupings. Students might be asked to relate

- |                             |                                 |
|-----------------------------|---------------------------------|
| • Functions to parts        | • Parts to the whole            |
| • Statements to postulates  | • Examples to classification    |
| • Definitions to terms      | • Classifications to principles |
| • Accomplishments to people |                                 |

(McBeath, 1992 cited in Bull and McKenna, 2004).

Matching questions are similar to MCQs, and if you are writing questions which have the same answer options, then they may be usefully organised into a matching item.

Matching questions require clear instructions and the information in the 2 segments should be as similar in nature as possible. To reduce the likelihood of guessing through elimination, there should be more responses than stems.

### Example 5: Matching

Column 1 contains descriptions of geographic characteristics of wind belts. For each statement find the appropriate wind belt in Column II. Record your answer in the appropriate space. Answers may be used more than once.

Column I	Column II
Region of high pressure, calm and light winds	Doldrums
The belt of calm air nearest the equator latitudes	Horse
A wind belt in the northern hemisphere typified by a continual drying wind	Polar easterlies
Most of the United States is found in this belt	Prevailing easterlies
	Prevailing westerlies

(McBeath, 1992 cited in Bull and McKenna, 2004).

### D. Graphical hotspot

In this type of question, which can be incorporated into computer-based examinations, the student answers the question by selecting a point on an image. An example might be an item which requires a student to indicate a location on a map, graph, picture or a diagram.

#### Example 6: Graphical Hotspot

Locate and label 4 Anglo-Saxon settlements on the map below.



CC-BY-SA-3.0

Map: [commons.wikimedia.org/wiki/Commons:Reusing\\_content\\_outside\\_Wikimedia](https://commons.wikimedia.org/wiki/Commons:Reusing_content_outside_Wikimedia)

## Affordances/strengths/challenges

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There are many **affordances** to objective tests. These include

- the potential to cover a wide range of material in an examination
- if offered online, the provision of automated marking and feedback
- the ability to test items for reliability and validity (See below.)
- the potential to create (or draw upon) question banks
- the option of creating adaptive tests if using computer-based assessment (See below)
- the possibility of re-using questions if exams are delivered online and drawn from large question banks
- questions can be relatively quick to answer and offer the potential to combine with other types of questions in a single examination.
- feedback on specific questions can be given to whole groups.
- the provision of quick feedback to the examiner on which parts of the course have been well understood.

**Challenges** include

- the possibility of guessing the correct response
- the challenge of writing unambiguous questions
- the difficulty of writing questions that test higher order learning
- the need to pilot questions before a summative examination
- the fact that too many questions can be fatiguing for test takers
- the provision of opportunities for students to practise object test questions before taking the test so that they are being examined on the material rather than their understanding of question formats
- A de-contextualisation of knowledge (Paxton, 2000).

## How to design a valid and inclusive assessment of this type

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An advantage of MCQs is that they can be tested for validity and reliability in advance of their use in high stakes examinations. They can be trialled as additional, not-for-credit, questions within a larger exam or bank of practice questions.

Item statistics can be generated for each question and its component parts depending on how they 'perform' in assessments. The two broad methods of gaining information about the performance of a question are 1) classical test construction and 2) latent trait analysis (Bull and McKenna, 2004). Some information about validity and reliability of test items can be generated automatically within online assessment packages.

It is a good idea to create objective test questions with colleagues so that they can be reviewed for ambiguity and possibly rated for what type of learning they are intended to be assessing. For example, are they testing recall or comprehension? Do they require students to apply knowledge or build on prior learning? Are students being asked to consider a case or scenario and indicate judgements through their responses to a test item? By analysing the levels of learning the items are testing, those designing an exam can ensure a spread of different levels of learning as well as a distribution across course content. (For a discussion of learning levels, see Bloom et al. 1956.)

## Safeguards and strategies to avoid and detect misconduct

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Strategies to deter misconduct during an examination include

- Setting individualised tests, which draw appropriate items from banks of validated questions, so that each candidate sits a unique exam.
- Using randomised tests so that each candidate sits the same set of questions but they appear in a different order. This reduces the likelihood of collusion during a test and is a good technique to employ if the test is delivered on paper.
- Offering adaptive testing in which the assessment is adapted to the candidate by taking into account previous responses. If a candidate can answer a series of questions at a certain level correctly, the test is adjusted to match the test-taker's ability. This approach can be used with online assessment and is viewed as an efficient way of judging a test-taker's ability with the material. It also means that, as with the previous examples, the assessment is unique to that candidate, thereby minimising the risk of collusion.

## Preparing students

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It is important to offer students opportunities to practice with the relevant question formats in advance of the exam. Practice tests can also offer the examiner an opportunity to try out new questions to see how they perform in terms of reliability and validity. Once the quality of a question is established, it can be used in subsequent summative examinations. Practice tests also offer students the opportunity to receive instant formative feedback if the questions are delivered online or if answers are posted online.

# Problem sets

## Description/Definition

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A problem set is a rather broad term usually referring to a problem-based method of assessment which involves students either having to work through (i) a series of tasks of similar or increasing difficulty or (ii) a progressive set of tasks to answer a single problem or solve a scientific and mathematical question. They are commonly used in the natural sciences, computer science, mathematics, economics, management and engineering. In each case, whether it is a set of individual problems or exercises or a series or a progressive set of steps (from more straightforward to complex) students are often expected to make explicit their workings out and include a written solution as part of their answer. Problems sets are often used to check students understanding of key concepts and their ability to apply these to prove results/solve a problem.

## Affordances/strengths/challenges

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There are many **affordances** to problem sets. These include:

- Problems sets can be designed to assess both the breadth of the curriculum as well as higher skills levels depending on the course learning outcomes.
- Problem sets are well adapted to the assessment of large cohorts of students.
- Problem sets can be designed to encompass varying levels of difficulty.
- Problem sets not only support assessment of learning but also support assessment for learning – they are an effective way of checking students understanding of key concepts as well as their ability to apply these to solve problems.
- Teachers can assign different point values to different questions depending what is being assessed. In terms of ascribing points, teachers may want to consider
  - the level of difficulty,
  - the time the students are expected to take in answering the problem or
  - the step in the problem.

**Challenges** include:

- Depending on the nature of the problems, problem sets may take a long time to design. In fact they often take longer to develop than to mark.
- Course leaders should bear in mind that their students may also need to develop good writing practices alongside quantitative skills to enable the students to perform successfully on problem sets.
- In some courses, it may be challenging to develop problem sets that are meaningful to diverse student bodies.
- There is the potential for error in the design of new problem sets. To minimise the risk of error it is always to have a rigorous exam paper review process. In the case of complex quantitative data manipulations, it would be good practice for a colleague to try out and provide feedback on new problem sets.

## How to design a valid and inclusive and effective assessment design of this type

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Problem sets can support inclusive practice by enabling teachers to assess a range of skills and understandings of their students. Examiners may choose to give students a degree of choice in terms of the problems they answer. The degree of choice should link directly to the learning outcomes of the course and any other forms of assessment that the students will be undertaking on the course. Therefore, it is important for examiners to have a clear understanding of exactly what levels of learning they are seeking to test through particular problem sets. Barbara Gross Davis (1993) differentiates between measuring the following levels: knowledge, comprehension, application, analysis, synthesis and/or evaluation which correspond to Bloom's (1956) levels of learning hierarchy in the cognitive domain. The problem set should be designed accordingly.

It is important that problems are worded clearly and simply; instructions should be explicit about what the student is expected to present as part of their solutions. Examiners setting problem sets for students from diverse background should be mindful of implicit assumptions about the background knowledge of the students. It is good practice to communicate to students the marking criteria of the problem set as well as the point value being assigned to different parts of each problem. This will also signal to students the relative importance of different parts of the problem set. Depending on the discipline, there may be only one correct answer or multiple answers and this, too, should be communicated to the students.

## Safeguards and strategies to avoid and detect misconduct

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Depending on the nature of the problems, there is usually a right answer being sought. One way to avoid misconduct and which is arguably also intrinsic to good universal design practice is to allocate marks for the different steps of the problem which students will need to submit as part of their examination paper. There are increasingly sophisticated online technologies to ensure student identity, and as colleges move increasingly towards the use of computers in summative assessment, such safeguards (identity checks, passwords to download exam papers, etc.) can be incorporated in the design.

## Approaches to marking and feedback/feedforward

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As indicated above course leaders need to make explicit the marks that are allocated for each part of the problem set or for each separate problem. It is good practice for students to know the breakdown of their marks so they understand how they have achieved their final mark and also where they may have lost points. Providing feedback to large cohorts may pose challenges of scalability. One approach to overcome this would be to prepare some general feedback for students highlighting where the group has performed well and where there were gaps in understanding. These observations can be communicated to students via the VLE. Class teachers may also choose to receive questions via a discussion board or forum or organise virtual office hours which could be recorded (with permission of the student) so that others could also benefit. Another possibility would be to develop annotated exemplars, which could also be made available via the VLE.



# Short answer questions

## Description/definition

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Short answer questions (SAQs) tend to be open-ended questions (in contrast to objective test questions) and require a response ranging in length from one word or number to several paragraphs, diagram(s) or a numerical response.

As with objective test questions, SAQs can enable examiners to assess a wide range of material particularly if the SAQs are designed to be fairly quick to complete. Whereas objective test questions usually have predetermined correct responses, SAQs may have a wider range of correct responses and they may take longer to mark. SAQs are less likely to be candidates for automated marking via computer-based assessment due to the range of possible answers.

SAQ responses may take a range of forms including

- short single sentence answers,
- diagrams or graphs with explanations,
- fill-in-the-blank,
- a short list of items,
- a brief paragraph (or paragraphs),
- an outline or plan.

SAQs are particularly good at assessing knowledge and understanding and they can also be combined with case studies or scenarios to assess students' analytical skills and their capacity to write with concision. See example 2 below, a sociology question from *SC1021*, which asks candidates to consider a passage on Durkheim and then answer 6 questions.

In terms of broader exam construction, SAQs can be combined with other question forms (such as essays) to create an assessment which addresses the breadth of the curriculum. The inclusion of SAQs can also deter question spotting by students because they cannot simply rely on revising 2 or 3 topics and then answering essays on these. Some SAQs are also candidates for inclusion in online summative assessment, although the test designer would have to anticipate all possible correct responses to a question for marking to be automated. Finally, from an inclusion perspective, SAQs may allow some students to demonstrate their knowledge of a course better than longer essay questions.

### Example 1: SAQs

- Define the following (2 points each)
  - historical materialism
  - classical Marxism
  - revolution
  - socialism
  - communism.
- According to a Marxist methodology, why does class conflict within a capitalistic society arise? (5 points)
- Marxism arises from the works of \_\_\_\_\_ and \_\_\_\_\_. (1 point)

### Example 2: passage plus SAQs

1. Read the following passage and answer the questions below.

Durkheim saw the subject matter of sociology as a distinctive set of social facts; these are specific phenomena that can be sharply distinguished from the particular facts studied by natural scientists. An example of a social fact that Durkheim suggested was the idea which other sociologists would call a role. There are certain established ways of acting, thinking, or feeling as a brother, a wife or as a citizen, which are associated with the roles that we play. These are in a general sense, expected, required or imposed ways of acting, thinking or feeling for those who occupy these roles/positions and may be established in custom or even law. Adapted from Fulcher and Scott, *Sociology*, p .32.

- (a) How do individuals learn how to play their roles in society? Illustrate your answer with reference to at least two sociologists that you have studied. (8 marks)
- (b) How is sociology different from natural science? (6 marks)
- (c) You have been asked by a university to investigate, from a student perspective, how the first year students are coping with their new environment.  
What method would you choose and why?  
Identify and describe any difficulties that you may find in carrying out this research. (10 marks)
- (d) 'Sociology is often described as being a science.' Give reasons for and against this idea. (10 marks)
- (e) Durkheim and Weber can both be described as idealists – what is meant by this statement? (4 marks)
- (f) Using the theories of any one sociologist that you have studied this year, describe how they explained any two of the following:
  - Social change
  - Social stability
  - The division of labour
  - Social identity(12 marks)

From Sociology exam

## Affordances/strengths/challenges

The **strengths** of this format for an examination are that it:

- encourages students to learn the entire curriculum.
- motivates students to engage with foundational knowledge and detail.
- is difficult for students to guess the answer, unlike in objective tests.
- may aid in ensuring that the exam addresses the module's ILOs due to the potential range of question topics.
- can be designed, set and marked relatively quickly.
- can test discrete areas of knowledge and understanding.

Additionally, SAQs can offer students the opportunity to demonstrate their knowledge across a range of topics. If a student does not know one area of material, they will not necessarily perform poorly on the entire exam. SAQs can test understanding of definitions and may offer opportunities for students to set out concise accounts of particular theories, concepts, applications and techniques.

Possible **challenges** include

- It is harder to test complex issues with the SAQs.
- There may be a more fragmented approach to exam content if SAQs are used exclusively.
- Students cannot develop a sustained argument.
- SAQs on their own may encourage a more superficial orientation to learning the course material.

## How to design a valid and inclusive assessment of this type

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When designing SAQs, it is useful to indicate to students

- what the expectations are in terms of length of answer (a few sentences, a list, one word, etc.).
- how the responses will be scored: will partial marks be given? Are marks awarded for each component of a multi-response question?
- the length of time students are expected to spend on the SAQ section of the exam.
- whether referencing is expected in SAQ responses.

The language of the questions should be clear and unambiguous. Additionally, as with objective test questions, the short answer question format should be introduced to students before the exam and the instructions should be straightforward.

## Safeguards and strategies to avoid and detect misconduct

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As with objective tests, a key issue is to prevent collusion in the exam. It may be possible to present the SAQs in different orders to make copying difficult.

## Approaches to marking


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Depending on the nature of the SAQs, marking may simply involve checking answers against a list of correct responses. Alternatively, a set of criteria may be used based on some of the following:

- Factual knowledge about a topic (Have the questions been answered correctly?)
- Clear, precise definition (Does the student give a clear, precise definition?)
- Numerical answers (Will marks be given on the process or stages of the answer as well as final figure or numerical response?)
- Concision and accuracy (Does the response offer a concise and accurate answer to the question?)

Markers should also agree an approach to marking unexpected but correct answers.

For an example of a marking rubric for SAQs, see Chan, C. (2009): [ar.cetl.hku.hk/am\\_saq.htm#6](http://ar.cetl.hku.hk/am_saq.htm#6)



# Design principles

# Language and design of exam questions

Throughout this toolkit we have tried to address question design in relation to specific examination methods. In this section, we address general principles of design that could be applied across question types.

## Language

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*Vocabulary:* Ideally, the language of questions should be clear and unambiguous. The exam is generally not a test of students' vocabulary and language skills and the inclusion of words in the rubric or questions that may confuse students or render the meaning unclear will not allow them to demonstrate their understanding of the subject. (This includes the use of languages other than English, such as Latin words, phrases and abbreviations.)

*Idiomatic phrases:* Idioms, slang and culture-specific terms should be avoided. As above, they are likely to confuse candidates and detract from the assessment of candidates' knowledge of the subject.

*Sentence structure:* Sentences which are short and uncomplicated are less likely to be misinterpreted. This applies to rubrics as well as individual questions.

*Indicating the length or scope of the answer:* It is helpful to students to know what is expected of them. This might be indicated by the

- time duration (for example, 'Please answer 3 questions in 30 minutes')
- number or percentage of points available to be awarded
- approximate number of words expected. (This could be helpful, for example, for 'short answer' questions.)

The question can also frame the expected response by establishing parameters, such as

- Within particular limits ('Between 1950 and 1965')
  - Quantities or delineation ('Offer 4 possible interpretations of this graph ...')
  - Indicating what should be cited or discussed ('With reference to recent research on oil production...')
- (Adapted from Exley, 2010)

## Question formatting and presentation

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*Visual clarity:* In addition to unambiguous language, the visual presentation and format should be as clean and helpful as possible. For example, if a question has multiple parts, it may be easier for a candidate to understand what is being asked if the question is formatted with bullet points or numbers rather than continuous prose (Race, 2009.)

Additionally, a clear and cleanly formatted question will be more accessible to students with specific learning needs (for example, dyslexia) but also to students who are anxious and potentially struggling to focus in the examination.

## Inclusive design

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The suggestions in this section about language, format and validity should contribute to an inclusive approach that benefits everyone. Additionally, when considering inclusive question design, issues of gender and diversity should be taken into account.

*Gender:* Designers of examinations should be alert to the use of gender in questions and examples. Where appropriate, there should be an equal number of references to women and men and, where possible and appropriate, the language should be gender-neutral.

*Diversity:* Questions should also avoid positioning people in 'stereotypical roles' (Bloxham and Boyd, 2007) and questions or case studies should ideally reflect the multicultural nature of the student cohort.

## Designing questions with high validity

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As suggested in the section on key principles underpinning the design of examinations on **page 9**, 'valid' questions are those which assess what the examination sets out to test. For example, if the examination aims to assess whether a candidate can analyse a topic, then an objective test question which is based on a definition is likely to have low validity, whereas an essay question which asks a candidate to critique a theory is likely to have high validity.

## Suggestions for writing valid questions include

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- Designing questions that closely reflect the course content (Bloxham and Boyd, 2007.) Do the questions and the exam as a whole align well with the course content?
- Designing questions that directly address the intended learning outcomes (ILOs) of the course. Are the ILOs reflected in the questions? Can all questions be mapped to specific ILOs? (It may be useful to have the course ILOs to hand when writing exam questions.)
- Reflecting on what the assessment is actually testing. Is a question measuring the ability to solve a problem? to process data? To apply a theory? To devise a strategy? To analyse a case? To justify a decision? Or, are questions largely testing memorization and recall. See Table 1 below for illustrations of question stems that test specific skills.
- Shifting the emphasis from recall to analysis. A table of data or other relevant information can be included within the question to reduce memory work. Similarly, the inclusion of a case study which students could analyse could shift a question from recall to analysis. Students will be tested on what they can do with or to data rather than how well they can remember and recall figures and facts (Race 2009).

## Designing questions to test certain types of knowledge

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It is useful to consider what types of knowledge questions are testing. Once a test designer has analysed the types of knowledge that are being assessed, it is possible to identify potential gaps in the examination.

Exley (2010) drawing on work by Anderson and Krathwohl (2001) suggests that there are 4 categories or knowledge domains that can be assessed in exams:

- **Factual Knowledge:** Terminology, facts, figures
- **Conceptual Knowledge:** Classification, Principles, Theories, Structures, Frameworks
- **Procedural Knowledge:** Algorithms, Techniques and Methods and Knowing when and how to use them.
- **Metacognitive Knowledge:** Strategy, Overview, Self Knowledge, Knowing how you know. (Exley, 2010)

Table 1 demonstrates how some of these sub domains can be tested through different types of question constructions.

**Table 1: Ways in which intellectual skills can be tested through different question stems.**

Intellectual Skill	Stem
Comparing	Describe the similarities and differences between... Compare the following two methods for...
Relating cause and effect	What are the major causes of... What would be the most likely effects of... What is the relationship between X and Y?
Justifying	Which of the following alternatives do you favour and why? Explain why you agree or disagree with the following statement.
Summarising	State the main points included in... Briefly summarize the contents of...
Generalising	Formulate several valid generalizations for the following data. State a set of principles that can explain the following events.
Inferring	In light of this information, what is most likely to happen when... How would person X react to the following issue?
Classifying	Group the following items according to... What do the following items have in common?
Creating	List as many ways as you can think of for/to... Develop an example which fits these principles... Create an alternative case which meets these criteria.
Applying	Using the principles of X describe, how you would solve... Apply this approach to the following case...
Analysing	Analyse this example in light of... Read this case and set out how you would respond and why...
Synthesizing	Drawing together several perspectives, indicate how would you build a case to... Read the following 3 items of evidence. Drawing on all 3, write a response to the following question... Use two or more theories/approaches to analyse the following...
Evaluating	Analyse the strengths and weaknesses of... Read the following passage. Evaluate the argument for X and Y...

(adapted from Figure 7.11 of McMillan (2001) cited in Piontek, M.E. (2008) and Exley (2010))

A final caveat is that, as Race (2009) suggests, some questions simultaneously measure multiple capacities and it is worth considering what each question is doing and how that relates to the coverage of the examination as a whole.

# Discouraging rote learning

## Assessment and learning behaviours

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A familiar refrain in education research is that the way to influence students' learning behaviours is to change the nature of the assessment. As Bloxham and Boyd (2007) suggest, assessment shapes

- what learning approach students adopt,
- the extent to which students study the entire curriculum,
- the amount of time they spend working with course material, and
- whether and how they address the core concepts.

In this section, we address the ways in which examination might influence students' learning practices, particularly the use of rote learning or memorization techniques. Some students may believe that rote learning is the most appropriate way to approach their studies. This might even be a technique that they have adopted successfully in other educational contexts, such as school, further education, professional training or work-based learning.

A powerful method of discouraging rote learning is to design exams that do not reward it. There is a risk that poorly designed exams can encourage surface learning and memorisation at the expense of deeper and more engaged learning.

## Minimising rote learning as a study strategy

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The following are ways of minimising the success of rote learning as a study technique and thus discouraging it:

1. Design examinations that move beyond recall, definitions and reproduction of knowledge from lectures or textbooks.
2. Ask students to describe concepts in their own words.
3. Avoid 'narrowly technical questions, or those closely aligned to the taught course, [which] allow weaknesses in understanding to be disguised' because this could send the signal that you expect students to reproduce elements of lectures and handouts (Bloxham & Boyd, 2007 citing Entwistle and Entwistle 1997:155)
4. Create questions that ask candidates to
  - Analyse
  - Form judgements
  - State and then justify responses
  - Apply theories or techniques to new cases
  - Extend current thinking
  - Debate
  - Offer original examples
  - Critique a stated position
  - Engage with new material



These types of tasks will motivate students to operate at the higher levels of Bloom's taxonomy of learning as they prepare for exams. It would be difficult to draw on techniques dependent upon memorisation and still be successful with these types of activities.

More broadly, a consideration of the learning outcomes for the course can aid in discouraging rote learning. Just as the examination components should aim to stimulate higher order learning, so, too, should the overall learning outcomes. If these are aligned with the assessment and the teaching and learning activities, students should be aware that rote learning is not a sufficient approach.

Additionally, opportunities to support students to change their learning approaches can be built into the curriculum and modelled explicitly through tasks and exercises. For example, exam preparation activities, such as working with marking criteria as a means of helping students understand what is expected (see **page 11**) can also signal that higher-level academic demands are being made and that these require a more analytical and critical orientation to the course content.

## Designing questions that stimulate a deep approach to knowledge construction

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A deep approach to knowledge construction can be stimulated by questions which

- reward students for understanding, making connections, etc.;
- encourage inquiry or creative production;
- explore complex issues, problems or case studies of practice;
- encourage students to make connections with (or challenge) what they already know;
- give students opportunities to discuss, debate and compare their understandings with others' perspectives;
- align with the course learning objectives and teaching and learning approaches;
- ask students to extend prior knowledge and learning;
- help students to become aware of critical differences between their prior understandings about the subject matter and new understandings or ideas which the subject is seeking to develop.

(Adapted from [uts.edu.au/research-and-teaching/teaching-and-learning/learning-and-teaching/students-approaches-learning](https://uts.edu.au/research-and-teaching/teaching-and-learning/learning-and-teaching/students-approaches-learning))

# Designing out opportunities for academic misconduct

There are a number of ways that time-constrained examinations help limit misconduct. For example, it is generally harder to plagiarise in an invigilated examination. Opportunities to engage in collusion or impersonation are also limited in an examination setting when compared with other forms of assessment.

This section explores further ways to guard against misconduct both at the design stage of the exam and as part of preparing students:

## Designing the questions

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- Try to design questions which are not easily answered via sites like Wikipedia or by essay mills. Questions which require higher order skills, such as the application of theories or concepts to a case will be harder for students to find as ready-made responses. This would be particularly applicable for Seen questions which students can prepare for in advance of the examination. (See section on Exploration of Exams as a Condition for Assessment on **page 12** for a discussion of the use of Seen questions which are provided to students in advance of the time-constrained exam.)
  - Similarly, questions should be designed in such a way that a student who memorises large chunks of text in preparation for the exam cannot simply reproduce that as a valid response. (See section on Discouraging Rote Learning on **page 40** addresses other techniques for discouraging rote learning.)
  - Ask questions that require student opinions and analysis rather than descriptive responses that could be accessed from other sources (Collings et al, 2014.)
  - Provide a case or passage in the examination and ask students to respond to questions drawing on the information provided. These might be questions which require students to apply theories or techniques; analyse the passage with reference to particular thinkers or concepts; or extend and analyse the case/ passage. See example 2 in the section on Short Answer Questions (SAQs) on **page 34** for a template for this type of question from Sociology.
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## The exam process

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To prevent copying in an exam hall setting, several versions of the exam could be produced with questions in different orders. Students could not casually glance at a candidate near them and reproduce their answers. This would be particularly relevant in the event of an objective test using MCQs.

If computer-based assessment is being used, then question banks of pre-tested questions could be used to create similar but different examinations to reduce the possibility of copying answers.

## Helping students prepare for the examination

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There is some evidence that students cheat when they are desperate and struggling with the curriculum. Supporting students in their preparation for exams may reduce the risk that they will resort to cheating. To help students in their preparation, academics can

- Provide past papers (or illustrative example papers if no past exams exist)
- Share the marking criteria and create opportunities for students to apply the criteria to sampler answers (See section on Pedagogy and current research on exams as a form of assessment on **page 7** for a discussion of research which suggest that an awareness of marking criteria in advance of the examination can substantially raise performance.)
- Offer suggestions about how students can prepare for exams. For example, how can they build on their formative assessment? How might they target their reading? What types of questions should they practice? Are there general exam preparation materials they can access?
- Remind students near to the exam what constitutes academic misconduct and the subsequent penalties. Gullifer and Tyson (2014) have shown that a combination of academic overload at the start of term and the subsequent workload and anxiety around examinations reduces students' retention of information about academic misconduct.
- Explain some of the more potentially confusing aspects of academic misconduct. If, for example, students are not allowed to repeat material in the exam that they have used for another piece of summative work (sometimes known as 'self-plagiarism'), then this should be made explicit in advance of the exam. Similarly, it may be worth emphasising that if a student has memorised a portion of a text, this cannot simply be repeated in an answer to an exam question without appropriate referencing.

# Marking and feedback on exams

## Introduction

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This section focuses on the marking of time-constrained examinations as well as exploring different aspects of feedback.

Marking and feedback are fundamental aspects of the overall assessment and learning process. Time constrained exams are usually summative assessments and thus the marks achieved contribute to a student's final grade on the course or may constitute the entirety of a student's grade. Thus questions of fairness and reliability take on a particular importance in the marking process. Though sizes of cohorts may preclude extensive individual feedback it is still important for students to receive some qualitative feedback on their performance and ideally an indication of areas for future improvement be it in the context of the current programme or in future studies.

## Marking

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A clear and precise set of marking criteria and marking schema are critical aspects of ensuring a fair and transparent marking process.

### Definitions

**Marking criteria** provide an explicit statement of the criteria applied in marking, with a detailed description of the qualities representative of different mark classes. Marking criteria should map onto the learning outcomes and align with the teaching and learning activities that the students have undertaken while studying on a particular course or programme.

**Marking Schema** is a detailed structure for assigning marks where a specific number of marks are given to individual components of the answer.

Clarity about marking criteria and the marking schema enables students to know what is expected of them. So it is useful for the students to have access to these in advance of the exams and ideally the marking criteria would be discussed with the students so that they have an understanding of how their work is being judged. In a face-to-face setting this can be done in class but in a distance learning setting this could be done through annotating the marking criteria or posting a short podcast on the virtual learning environment. In the case of quantitative problem sets for example it is helpful for students to know the balance of marks between getting the right answer and demonstrating one's working out.

The examiners would also be expected to assess students' work in line with the stated marking criteria and marking scheme and it would be good practice for them to complete marking sheets which combine the mark as well as some qualitative comments though the size of the cohort and available resources may preclude this.

**International Programmes example:** The assessment comment sheet, which is used on the **MA in Refugee Protection and Forced Migration Studies** in appendix 1. In this case the examiner fills out a separate marks sheet. Examiners are expected to give feedback on clarity of expression and presentation, structure, argument/logic sources. There is also space for additional comments.

## Approaches to marking

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There are a number of different approaches to marking and moderation. The underlying principle is to try to ensure the reliability of the marking, that is that the marking results in a stable, consistent judgement across the cohort and that there is consistency across markers and also in the marking of each individual.

In most cases to assure the fairness and reliability of the marking process more than one marker is generally involved in the marking process. But this may take a number of forms. (See below).

Irrespective of what marking approach is adopted, it is important that there is an effective process of adjudication to ensure that decisions are made fairly and this should be done in the context of the marking criteria.

## Forms of moderation

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**Moderation:** Arrangements to ensure the consistency of marking, including the proper application of the assessment criteria, across students or modules.

In most cases of marking summative time-constrained examinations, some form of second-marking which builds moderation into the process is employed. This is one of the ways in which academics seek to assure the quality of the assessment process. This may take a number of different forms which will be influenced by the size of the cohort, the nature of the assessment, and broader views about fairness and reliability. A number of different approaches to second marking and moderation are listed below:

- **Full second-marking:** second markers second-mark or check all examinations.
- **Sampled second-marking:** Second markers second-mark or review a sample of examinations of the full set of assessments, based on defined criteria.
- **Blind second-marking:** The second marker marks the entire set or a selection of examination papers without any prior knowledge of the first-marker's marks and comments. The examiners then meet to agree marks ideally with reference to the marking criteria and a clear procedure for adjudication.
- **Open second-marking:** The second marker is informed of the first marker's marks and comments and thus can take these into account when marking or reviewing examination papers.
- **Double blind marking:** Each examiner marks the papers independently and assigns a mark. The examiners then meet to agree marks ideally with reference to the marking criteria and a clear procedure for adjudication.

## Approaches to feedback

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Feedback is an essential part of the learning process. In the case of feedback on a summative piece of work which is usually the case with time-constrained examinations, it is crucial that students have clarity about their performance, in other words why they achieved the grade they did. But what is sometimes overlooked is that irrespective of the assessment students also need feedback to close the loop on a particular point in the assessment cycle and also to know how to develop further.

## What is good feedback?

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Sadler (1998) has identified three necessary conditions for students to benefit from feedback in academic tasks. He argues that the student must know:

- what good performance is (i.e. must possess a concept of the goal or standard being aimed for);
- how current performance relates to good performance (for this, students must be able to compare current and good performance);
- how to act to close the gap between current and good performance.

Taking this a step forward in a seminal article on 'Rethinking Formative Assessment in HE: a theoretical model and seven principles of good feedback practice', Nicol and MacFarlane Dick (2006), following an extensive literature review on research into feedback, identified the following seven principles. Good feedback practice:

1. helps clarify what good performance is (goals, criteria, expected standards);
2. facilitates the development of self-assessment (reflection) in learning;
3. delivers high quality information to students about their learning;
4. encourages teacher and peer dialogue around learning;
5. encourages positive motivational beliefs and self-esteem;
6. provides opportunities to close the gap between current and desired performance;
7. provides information to teachers that can be used to help shape the teaching.

These principles are underpinned by the recognition of the importance of the link between feedback practice and student learning. Though much of this work has focused on formative assessment the principles of good feedback cut across all forms of assessment.

## Areas for consideration

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In designing approaches to feedback course and programme convenors have to bear in mind:

- the size of the cohort,
- the timing of the feedback, in other words, where the feedback comes in the overall assessment process, and
- the purpose of the feedback: is the feedback part of a summative assessment process and thus largely being used to justify and explain a particular mark or is there a formative dimension to the learning, in which case there should also be a feed-forward aspect to it. In the case of end-of-course or programme time-constrained examination, the focus may be more on justifying the marks in the context of the marking criteria. But where possible there should also be an element of feed-forward.

## Modes of Feedback

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### Written or oral feedback:

There are a number of ways to give feedback which can all in different ways contribute to student understanding and learning. Students may be given feedback in written or oral form through the VLE:

- **Written feedback:** In the case of summative time-constrained examinations in many cases markers have to fill out a feedback sheet which may include a combination of tick box entries corresponding to the marking criteria as well as a space for written qualitative comments. These could be communicated to the students in some form – either a copy of the feedback sheet itself or a short summary of key points. Another option (but this is likely only to be possible with small cohorts of students) is to give feedback using the Turnitin software detection tool. This allows the marker to provide individual on-text feedback. This form of feedback is used on the MA in Refugee Protection and Forced Migration Studies programme for students' dissertation proposals and could be replicated in the context of exams.
- **Oral feedback:** Most VLEs have tools for recording oral or audio feedback or for uploading oral feedback. This approach is less common in the case of feedback on summative time-constrained examinations but may be attractive for some staff and students particularly those working in a distance learning context given the sense of immediacy of the spoken word. Oral or even audio feedback may also be preferred when a teacher is looking to provide some general feedback to an entire cohort of students.

### Individual or collective feedback

Qualitative feedback may be given to individual students by the marker of the examination paper. In some cases, individualized feedback such as on MCQs may be generated from a computer-based system.

Collective feedback is also attractive particularly on courses with very large cohorts.

As suggested earlier the choice between individualised or collective feedback is likely to be shaped by the nature of the assignment and the size of the cohort. On a programme such as the LLB which has 16,500 students worldwide it would be very hard to give individual feedback to all students.

Irrespective of the mode, in each case the feedback should include the following aspects:

- An indication of what has been done well.
- An indication of areas for improvement. This is increasingly referred to as the feedforward dimension. of the feedback and may be the preferred option particularly on courses with very large cohorts.
- In the case of individualised feedback an explanation of the grade would also be expected (and this should as far as possible map on to the marking criteria).

**International Programmes example:** On the **Economics, Finance, Management and Social Science** programmes led by the London School of Economics and Political Science, Examiners' commentaries are written by the Chief Examiners after each year's examinations. The aim of the commentaries is to enable students to understand how the syllabus for each course is examined, the kinds of questions they will be asked and the quality of answers that the Examiners expect. They also indicate some of the common mistakes students have made in the past, so that students can avoid them in the future and often provide some advice on how students should prepare for the examination.

(adapted from: [londoninternational.ac.uk/sites/default/files/programme\\_resources/lse/lse\\_pdf/examiners\\_commentaries\\_16/ec3115\\_exc16.pdf](http://londoninternational.ac.uk/sites/default/files/programme_resources/lse/lse_pdf/examiners_commentaries_16/ec3115_exc16.pdf))

Here is an extract taken from the third-year course on **Monetary Economics**:

'The examiners are looking for answers that show an understanding and ability to apply economic principles, combined, where appropriate, with factual knowledge. The use of diagrams to illustrate points is welcomed by the examiners. Candidates are expected to show independent critical judgement, for example in Section A where the statements given may be true or false or somewhere in-between. Candidates should be able to distinguish between true and false, or partially true and partially false, claims. In the data-based questions in Section B, the examiners are looking for comments based on a close examination of the data provided. Candidates' comments should reflect appropriate economic principles and theoretical ideas. Comments should, where this is relevant, be supported by some knowledge of other facts and circumstances beyond those shown in the question paper. It is not expected that candidates will have studied in detail the data for the countries, the variables, or the time period that are mentioned in the question. However, it is expected that they will have some general knowledge of a wide range of recent economic events. The essay-type questions in Section B are intended to test whether the candidate has done further reading beyond the core text/subject guide.'

#### Framing feedback

- When writing or recording qualitative feedback, it is important for the examiner to bear in mind the tone in which the feedback is framed.
- Where possible, the feedback should combine positive as well as constructive feedforward aspects.
- Students respond better to feedback which is framed in a constructive encouraging tone even when the nature of the feedback is quite critical. One way to do this is to start and end on a positive note.
- When providing developmental feedback, it is helpful where possible to illustrate what is being suggested as it is easy to mistakenly assume shared understandings.



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## Other Resources:

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### Question setting:

[testing.byu.edu/handbooks/WritingEffectiveEssayQuestions.pdf](http://testing.byu.edu/handbooks/WritingEffectiveEssayQuestions.pdf) and  
[lshtm.ac.uk/edu/taughtcourses/exams\\_assmt\\_staff/exambrdguide/exam\\_question\\_setting\\_good\\_practice.pdf](http://lshtm.ac.uk/edu/taughtcourses/exams_assmt_staff/exambrdguide/exam_question_setting_good_practice.pdf) and  
[cmu.edu/teaching/assessment/assesslearning/creatingexams.html](http://cmu.edu/teaching/assessment/assesslearning/creatingexams.html)  
(Accessed November 2016).

### Open book examinations:

[facultyfocus.com/articles/educational-assessment/why-open-book-tests-deserve-a-place-in-your-courses/](http://facultyfocus.com/articles/educational-assessment/why-open-book-tests-deserve-a-place-in-your-courses/) (Accessed November 2016).

### Students' approaches to Learning. University of Technology, Sydney:

[uts.edu.au/research-and-teaching/teaching-and-learning/learning-and-teaching/students-approaches-learning](http://uts.edu.au/research-and-teaching/teaching-and-learning/learning-and-teaching/students-approaches-learning) (Accessed November 2016).

### Avoiding plagiarism:

Designing out plagiarism: A brief guide for busy academics: [surrey.ac.uk/cead/resources/documents/Designing\\_out\\_plagiarism.pdf](http://surrey.ac.uk/cead/resources/documents/Designing_out_plagiarism.pdf) (Accessed November 2016).

### Briefing papers:

Writing for Government, University of Victoria notes for students:  
[web.uvic.ca/~sdoyle/E302/Notes/WritingBriefingNotes.html](http://web.uvic.ca/~sdoyle/E302/Notes/WritingBriefingNotes.html) (Accessed November 2016).

# Appendix 1:

UNIVERSITY OF LONDON INTERNATIONAL PROGRAMMES/  
SCHOOL OF ADVANCED STUDY

MA in REFUGEE PROTECTION AND FORCED MIGRATION STUDIES 2014–2015:  
ASSESSMENT COMMENT SHEET

**To be returned to the Exams Distribution Office with the marked exam scripts and completed mark sheet**

*MARKS MUST BE ENTERED ADDITIONALLY ON THE BACK OF EACH SCRIPT*

Candidate Number	
Exam Title	PROTECTING HUMAN RIGHTS, REFUGEES & DISPLACED PERSONS IN INTERNATIONAL LAW
Exam Code	RPM010
Marker's Name	
Mark	

1	CLARITY OF EXPRESSION AND PRESENTATION
2	STRUCTURE
3	ARGUMENT/LOGIC
4	SOURCES
5	COMMENTS

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