

WORKSHOP TITLE: Assessing Higher-order Thinking: writing questions and mark schemes

Presenters:

Ayesha Ahmed
Doug McCurry
Alastair Pollitt

Presenters' Bios (500 words):

Ayesha Ahmed is a Research and Teaching Associate at the Faculty of Education, University of Cambridge. She has a PhD in cognitive developmental psychology and has spent the last 18 years researching the psychology of educational assessment, first at Cambridge Assessment, then freelance and now in the University. The focus of her work is on what makes good quality assessments, and on using this research to inform training for question writers and teachers. She is a Fellow of AEA-Europe and an executive editor of the journal *Assessment in Education: principles, policy and practice*.

Doug McCurry is a Senior Research Fellow at the Australian Council for Educational Research. He specializes in the assessment of generic reading, reasoning and writing skills. His main research interests are: concepts of and the assessment of generic and work-related skills; the assessment of socio-cultural and interpersonal reasoning; and the assessment of writing as reasoning. Doug has produced a wide range of tests and other assessments. His PhD research was on multiple teacher judgements of generic skills. He has recently conceptualised and is executive examiner for test of critical thinking which is part of a self-directed research study for senior students.

Alastair Pollitt is Director of Cambridge Exam Research, an independent consultancy specialising in technical and psychological aspects of educational assessment. After fifteen years developing educational tests in Edinburgh, he moved to Cambridge University's Research Centre for English and Applied Linguistics before becoming, in 1994, Director of the Research and Evaluation Division at UCLES (Cambridge Assessment). His particular interests are in novel approaches to formative and summative assessment, improving the quality of marking, and abolishing marking where Comparative Judgement is more appropriate. He is a Fellow of AEA-Europe, currently vice-Chair of AQA's Research Committee, and an advisor to various assessment organisations.

Why AEA members should attend this workshop:

The difference between routine, pedestrian and higher-order assessment items is a fundamental validity issue. This workshop will focus on this distinction in the most specific and concrete terms. In doing so it is concerned with the quality of assessment items.

Through a process of writing and reviewing assessment items (and their marking) the workshop will address the following questions.

- When is an assessment item basic and simplistic (although not necessarily 'easy')?
- When is an assessment item complex and sophisticated (although not necessarily 'difficult')?

This Workshop is for those who:

- are interested in understanding and assessing higher-order thinking;
- design, commission and evaluate assessment materials;

- want to explore the challenges of marking open questions; and
- write tests and examinations and are interested in testing and broadening their item writing skills.

Overview (500 words):

This workshop will be focused on six different kinds of stimulus material which participants will be asked to understand thoroughly and to start to write some questions about before the workshop. These will be suitable stimuli for assessing the thinking skills of students in senior school or early tertiary education (approximately 15-18 year olds).

The object of the workshop will be to explore ways to assess higher order thinking skills using a variety of stimuli. In particular we will focus on issues of how the mark schemes for such items interact with question wording to affect the validity of the assessment of these skills.

The intention of the questions would be to test thinking skills rather than knowledge as such, so the material will be generally accessible or will introduce unfamiliar ideas to students. Some of the stimuli will test the skills that underpin learning (literacy, numeracy and reasoning), and some will test the skills typical of very broad subject areas, such as the humanities, social sciences, sciences and mathematics. The overall aim is to consider ways to assess generic skills rather than specific knowledge.

There will be the opportunity to learn from each other by discussing the possibilities that different participants see for assessing higher order skills using each stimulus, the questions they would pose about it, and how they would propose to mark responses to those questions.

While closed items can be written and discussed, there will be a particular emphasis on open-ended questions and how they can be marked in a way that rewards students who meet the intended higher order demands. We will also consider how to make such items accessible to all students and how to credit responses in a way that is fair to all. Open-ended items tend to be less common than closed items in many assessment systems, so improving our understanding of assessing using such items should result in a more equitable spread of items, giving opportunities to all students.

By the end of the workshop, participants will have a set of items (questions and mark schemes) that aim to assess higher order thinking. This experience will give them the tools to apply what they have learned when considering such issues within their own contexts.

Preparation for the workshop:

Participants will be invited to suggest appropriate pieces of stimulus for question writing and discussion, for example, texts, pictures etc. The facilitators will select six pieces of stimulus material which will then be circulated to participants well before the workshop. Participants will be asked to interrogate the stimulus material and to begin to write questions and marking guides for some of them before coming to the workshop. This will allow us to use the workshop time for productive discussion and revision of items.

Schedule

Time	Session	Presenter
09.00	Coffee and registration	
09.30 15	Welcome & introductions Outline of the Workshop	
09.45 75	Some humanities and arts material What is the centre and essence of this stimulus? What does it mean to analyse, understand and interpret it? What questions could be asked about this material? How might one mark different questions about the material?	Ayesha and Doug
11.00	Break	
11.30 90	Some social science, science and mathematics material (Questions as for session 1.)	Ayesha and Doug
13.00	Lunch	
14.00 90	Some public domain and 'real world' material (Questions as for session 1.)	Ayesha and Doug
15.30	Break	
15.45 45	Analysis, synthesis and overview The characteristics of higher-order test items When are items higher-order and why? Principles for marking higher-order test items	Ayesha and Doug
16.30	Workshop close	