WORKSHOP TITLE:

How to assess higher order thinking skills? Theory and practice for paper based and computer based item formats.

Presenters:

Caroline Jongkamp (1966) is a senior consultant for international projects at Cito, the Netherlands. She is experienced as a professional test developer in economics, financial accounting, and ICT. At Cito, she was responsible for the implementation of computer-based testing in the Dutch secondary leaving exams. She is an experienced change manager involved in change processes on item banking and computer-based testing.

She holds an MSc in Econometrics with specialization in Operations Research.

Nico Dieteren (1960) is a senior consultant for international projects at Cito, the Netherlands. He is experienced as a professional test developer in economics, geography and social sciences. At Cito he was one of the leading test experts in first experiments with the use of computers in high-stakes final exams for secondary education. He is experienced as department manager for final examinations secondary education in social sciences and arts.

Mr Dieteren holds an MA in Economics and in Geography, with specialization in Economic Geography and holds first degree teacher licences in both subjects. Since 2014 he is accredited as Practitioner by the Association for educational Assessment Europe (AEA-E).

Why IAEA members should attend this workshop:

The workshop will offer an introduction into Item construction for higher order thinking skills and applications for paper based and computer based testing. Participants will gain insight in the do's and don'ts when developing good open and closed test items and will receive practical exercises with checklists for item properties and for the selection of good contexts. The use of taxonomies for developing an item bank will be shown, starting from the well-known classification by Bloom (revised). Participants will then be introduced to the specific Scalise taxonomy, that shows special features and opportunities when developing items for computer based testing. This introduction will be followed by some practical exercises. Participants will experience that this taxonomy is not just another classification, but also offers item writers useful 'templates' for innovative item development for computer based testing. We will encourage participants to do practical work in small groups, as this will also stimulate the learning by exchanging experiences, views and opinions with other experts.

Who this Workshop is for:

The workshop is aimed at those who want to learn more about the development of good test items that assess higher thinking skills in high-stakes tests. Participants might be novice or more experienced users. No prior knowledge is required to attend the workshop, although we aim specifically to invite practitioners who are actively involved in and or responsible for test- and item development projects in their own professional environment.

Participants are invited to bring their own laptops for practicing (Windows and Chrome browser).

Overview:

The workshop starts with an introduction to the general framework for item development and for the steps in the test development cycle, from the perspective of the test developer.

The first session of the workshop will cover some practical do's and don'ts when constructing closed or open test items. Based on commonly accepted rules and prescriptions, the participants will screen some example items and learn to make distinction between 'the good' and 'the bad' items. We make use of handouts and checklists. For some this will be a refreshment of what they already (should) know, for others this might be quite new.

In the second session participants will learn about the main features of item development for higher order thinking skills in combination with the theoretical background of assessing productive skills in realistic contexts. First we will do this for standard paper based assessments and the use of the standard taxonomy of the revised Bloom.

In the third session participants will be informed about some special features of a specific taxonomy that can be used for assessing higher order thinking skills in computer based formats. This taxonomy will proof to be not only a useful classification toll, but also can serve as a practical guide for item developers when looking for specific item types that can be offered in computer based testing platforms.

Preparation for the workshop:

No special preparation is required, the workshop format will be interactive allowing participants to discuss their own experience and/or problems. If available, participants are encouraged to bring some examples of their own items for paper based or computer based format. It is the belief of the workshop leaders that sharing experience in item and tes development will stimulate and enable participants in solving educational measurement problems that they encounter in their practice or anticipate encountering.

Workshop program

Time	Session
09.00	Coffee and registration
09.15	Welcome & introductions General framework for test- and item development
10.00	Do's and dont's in constructing closed and open items Practical exercise 1
11.00	Break
11.15	Development of items for HOTS and taxonomies Practical exercise 2
12.00	Item types for computer based testing and specific taxonomy Practical exercise 3
12.50	Workshop close and evaluation
13.00	Lunch