



AEA-Europe 10th Annual Conference

PRE-CONFERENCE WORKSHOPS

The Corinthia Palace Hotel & Spa, Malta

November 4, 2009

9.30-16.30

1. Item Response Theory and Predictive Systems

**Frans Kleintjes, Cito, Arnhem, The Netherlands and Eduardo Cascallar,
Assessment Group International, Belgium**

Abstract:

Item Response Theory (IRT) is used to analyse test data on item level, IRT provides a statistical process for estimating characteristics of items and examinees and defining how these characteristics interact in describing item and test performance. When used properly IRT can increase the efficiency of the testing process, enhance the information provided by that process and make detailed predictions about unobserved testing situations.

IRT is used for many measurement applications including item banking, test construction, adaptive test administration, scaling, linking and equating, standard setting, test scoring and score reporting. In the workshop, the emphasis will be on using IRT in examinations.

The workshop starts with some theory on IRT, including a comparison with classical test theory. Major properties of IRT will be highlighted using illustrative examples. IRT output will be explained, discussed and interpreted based on materials that will be provided. Several concepts used in IRT will be explained using examples from the test construction experience of the presenters and if available from participants.

Part of the workshop will focus on the use of predictive systems in predicting educational outcomes. After a short introduction in predictive systems, the relationship with IRT and

its use in evaluating educational outcomes will be presented. Emphasis will be on methods of pruning input data to maximize the accuracy and effectiveness of automated intelligent systems in educational applications which involve classification tasks.

We intend to deal with application of IRT in:

- Content related interpretation of the ability scale.
- Standard-setting and maintaining standards in examinations.
- Predictive systems and the prediction of educational outcomes

2. Assessment for Learning

Gordon Stobart, Institute of Education, University of London, UK

Abstract:

This session will be led by Gordon Stobart, who is a member of the Assessment Reform Group, a group which has helped to shape formative assessment practices in the UK.

This session will look at current international understandings of formative assessment and how it is being used in the classroom. We will consider how practices may vary across different cultural contexts, particularly in relation to summative assessment.

Some of the key understandings of AfL were developed a decade ago – what changes might we expect from ‘second generation’ Assessment for Learning?

At a practical level we will look at classroom developments in making clear what is being learned, of finding out where learners are in their learning, and in giving effective feedback. We will also consider ways in which formative assessment can best be presented to classroom teachers

3. Learning Progressions: Assembly and Assessment

W. James Popham, University of California, Los Angeles
H. Margaret Heritage, National Center for Research on Evaluation, Standards and Student Testing, University of California, Los Angeles

Abstract:

By its very nature, learning involves progression. To assist in its emergence, teachers need to understand the pathways along which students are expected to progress. These pathways, or progressions, because they undergird both instruction and assessment, act as a touchstone for formative assessment.

In formative assessment, teachers elicit evidence of student learning so they can adjust instruction to keep learning moving forward. With the clear en route learning goals outlined in a progression, teachers can match formative assessment opportunities to those goals and thus monitor learning based on the trajectory represented in the progression. The information from the progression-based assessments helps teachers identify where students are in their learning and, therefore, decide what to do next in instruction.

Recently, learning progressions have received increased attention in the United States. This is due, in part, to limitations in the current descriptions of curricular outcomes identified in state-approved content standards and in school curricula.

Ideally, learning progressions should be developed from a strong research base that represents the structure of knowledge—and how learning occurs—in a discipline. Yet, the research base in many content areas is not as robust as it might be. So how can learning progressions be constructed to provide teachers with descriptions of students' status that best support formative assessment practices?

In this session, the two presenters will consider the relationship between learning progressions and formative assessment, describe the challenges inherent in various ways of constructing learning progressions, and consider methods by which progressions can be validated. There will be numerous opportunities for participants to react to the ideas presented.

4. Grading and scaling

Anton Beguin & Theo Eggen, Cito/University of Twente, The Netherlands

Abstract:

In this workshop on grading and scaling we focus on the transformation of a performance on a test or assessment into grades or scales. The main topics that will be addressed are: scoring and marking of items, setting of cut scores, transformation of scores into scales and the development of grades in time. Next to this the test construction process is described and it is evaluated what aspects of test construction are essential in designing tests and assessments that are suitable for the intended use (distinguishing between the different grades or reporting on the intended scale). In this the following topics are addressed: steps of test construction, quality indicators of items, standard error of measurement, accuracy of decisions, standard setting, linking of test forms, vertical equating, adaptive and multistage testing.