NCME
national
council on
measurement
in education

National Council on Measurement in Education

2011 Training Sessions
April 7-8, 2011

2011 Annual Meeting
April 9-11, 2011

New Orleans, Louisiana

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Meeting Location

The 2011 Training Sessions, Annual Meeting and Joint Reception will be held at the Westin New Orleans Canal Place Hotel. The NCME Breakfast, Business Meeting and Presidential Address will be held at the Sheraton New Orleans Hotel.

Future Annual Meetings

2012 Annual Meeting
April 12 - 16
Vancouver, British Columbia, Canada
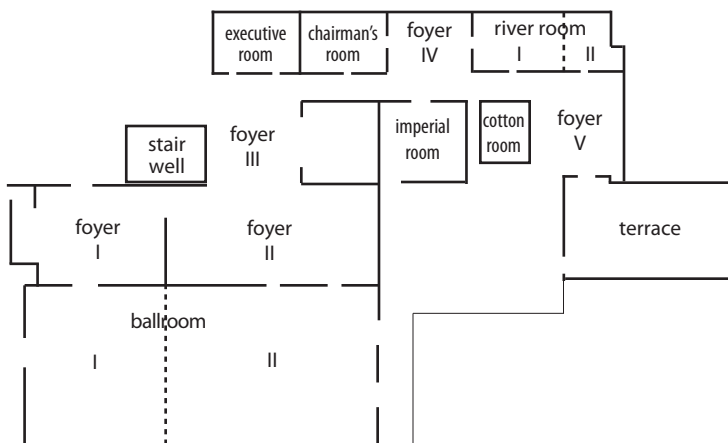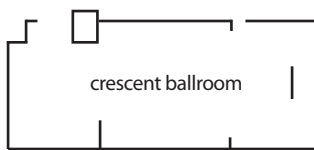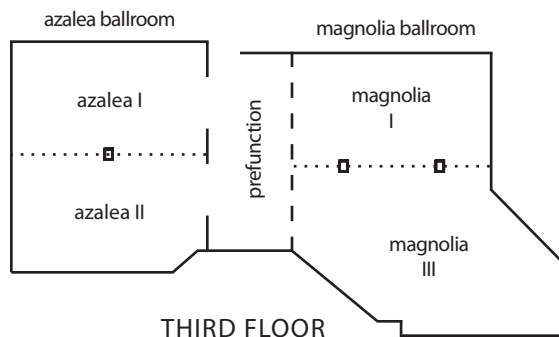
2013 Annual Meeting
April 10 - 14
Atlanta, Georgia

2014 Annual Meeting
April 2 - 6
Philadelphia, Pennsylvania

Westin New Orleans Canal Place Floor Plan

azalea ballroom

magnolia ballroom

azalea I

magnolia I

prefunction

azalea II

magnolia III

THIRD FLOOR

crescent ballroom

ELEVENTH FLOOR

executive room

chairman's room

foyer IV

river room

I

II

stair well

foyer III

imperial room

cotton room

foyer V

foyer I

foyer II

terrace

ballroom

I

II

TWELFTH FLOOR

PRE-CONFERENCE TRAINING SESSIONS

The 2011 NCME pre-conference training sessions will be held at the Westin New Orleans Canal Place on Thursday, April 7 and Friday, April 8, 2011. All full-day sessions will be held from 8:00 a.m. to 5:00 p.m. All half-day morning sessions will be held from 8:00 a.m. to 12:00 noon. All half-day afternoon sessions will run from 1:00 p.m. to 5:00 p.m. There will be one pre-conference training session offered on Saturday, April 9.

On-site registration for the pre-conference training sessions will be available at the Westin New Orleans Canal Place Hotel for those workshops that still have availability.

Four of our training sessions will be webcast live to over 25 sites around the world. Several sessions were webcasted last year and were very well received. We are happy to be able to try to improve and expand on this NCME initiative.

Thursday, April 7, 2011

Thursday, 8:00 a.m. - 12:00 noon, Azalea Ballroom I, AA
Using R for Everyday Research
 Brian Habing, University of South Carolina; Jessalyn Smith, CTB/McGraw-Hill

The free statistics package R has become a favorite of statisticians over the past decade – and it offers a large number of benefits to quantitative researchers in all areas of educational research. With you working along through each step on your own laptop computer, this training course will cover some of the most useful aspects of R for any researcher, including: making fully customized graphs (including color, axes, and labels); manipulating data sets in an intuitive way to quickly get the precise subset of subjects and variables that you want; and performing statistical analyses with a single command. The course will end with examples of how R can be used to simulate data sets (with an example perfect for classroom use) and how it can be easily customized to perform functions that aren't built in.

This course is designed for those who have had a two-course sequence in quantitative methods but have no previous experience with R. Participants must bring their own (windows compatible) laptop computer; all required software will be provided.

Intended Audience: Educational researchers who have to produce graphs, manipulate data, and/or perform basic statistical analyses. The course assumes they have completed a basic sequence in quantitative methods, but have no previous experience with R.

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Thursday, 8:00 a.m. - 12:00 noon, Azalea Ballroom II, BB
Application of Evidence-Centered Design (ECD) in Large-Scale Assessment
  Kristen Huff, Regents Research Fund; Meryl Bertenthal, Indiana University Bloomington; Maureen Ewing, The College Board; Sheryl Packman, The College Board; Jim Pellegrino, University of Illinois-Chicago

The cornerstone of evidence-centered design (ECD) is an evidentiary argument that requires that each target of measurement (e.g., learning goal) for an assessment be expressed as a claim about an examinee that is relevant to the specific purpose and audience(s) for the assessment. The observable evidence required to warrant each claim is also articulated. The claims and evidence shape the design of assessment opportunities for students to demonstrate what they have learned, whether that opportunity is a classroom activity or a multiple-choice item on a high-stakes assessment. Once identified, the characteristics of these assessment opportunities are referred to as task models, each capable of generating multiple assessment tasks. Taken together, the claims, evidence, and task models constitute the evidentiary argument.

The objectives of the session are to provide participants (1) clear and detailed examples of the processes and outcomes of ECD and (2) an evaluation of the benefits and challenges of using ECD in a large-scale assessment program using examples from The College Board's Advanced Placement. Participants will engage in hands-on work by approximating the development of a hypothetical exam using ECD.

Intended Audience: Measurement professionals and graduate students interested in test design, item writing, and/or design-based validation argument.

Thursday, 8:00 a.m. - 5:00 p.m., 12th Floor Ballroom I, CC
Bayesian Analysis of Item Response Models: Theory and Methods
  Yanyan Sheng, Southern Illinois University, Carbondale; Sun-Joo Cho, Vanderbilt University

Theory and methods of fully Bayesian inference and computation for item response models are discussed. The session will consist of two parts. The first part introduces Bayesian inferences of dichotomous item response models using a Markov chain Monte Carlo (MCMC) simulation technique. Topics include fully Bayesian vs. marginal Bayes estimation, Gibbs sampling procedures for the one , two-, and three-parameter normal ogive models, and their likelihoods, prior distributions and posterior distributions. Gibb sampling procedures will be illustrated using MATLAB. The second part illustrates the use of WinBUGS for the implementation of MCMC algorithms. Topics include the basic programming routine (e.g., indexing and looping), the model and prior specification, the initial value setting, the monitoring

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convergence, and the output analyses in WinBUGS. Implementation of WinBUGS will be demonstrated for simple and complex item response models and Bayesian estimates will be compared and discussed with maximum likelihood estimates.

Prerequisites include knowledge equivalent to one graduate course in theoretical educational measurement and familiarity with differential and integral calculus treated in undergraduate mathematics courses. Course materials will be distributed as handouts to participants and used as a principle reference in the training session. Participants are encouraged to bring their own laptop computers.

Intended Audience: Upper-level graduate students and new measurement professionals who are interested in learning about Bayesian analysis for item response theory models.

Thursday, 8:00 a.m. - 5:00 p.m., Magnolia Ballroom I, DD
Generalizability Theory and Applications
Robert Brennan, University of Iowa, CASMA; Won-Chan Lee, University of Iowa, CASMA

This training session on Generalizability Theory and Applications will be given by Robert L. Brennan (Director) and Won-Chan Lee (Co-Director) who are both faculty members at the University of Iowa and colleagues at the Center for Advanced Studies in Measurement and Assessment (CASMA).

The primary goals of this training session are: (a) to enable participants to understand the basic principles, terminology, and notational conventions of generalizability theory; (b) to conduct relatively straightforward generalizability analyses; and (c) to interpret and use the results of such analyses. Mathematical and statistical foundations will be treated only minimally. Major emphasis will be placed upon quickly enabling participants to conduct and interpret relatively straightforward generalizability analyses, then somewhat more complicated ones. Both synthetic data and real data examples will be used.

Topics to be covered include: (a) an introduction to univariate generalizability theory; (b) single-facet universes and designs; (c) multifacet universes of admissible observations and G study designs; (d) multifacet universes of generalization and D study designs; (e) some applications (e.g., performance assessments); and (f) other topics, if time permits (e.g., an introduction to multivariate generalizability theory; conditional standard errors of measurement; unbalanced designs; variability of statistics in generalizability theory; etc.)

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The GENOVA suite of computer programs (GENOVA, urGENOVA, and mGENOVA) for performing generalizability analyses will be discussed. GENOVA will be illustrated in some detail. These programs are available free of charge on the CASMA website: www.education.uiowa.edu/casma.

Prerequisites for this training session include knowledge equivalent to one course in educational measurement and familiarity with ANOVA at the level treated in introductory graduate courses in education and psychology. A book written by the director, titled *Generalizability Theory*, will be distributed to participants and used as a principle reference in the training session. Participants may wish to bring laptops, but they are not required.

Intended Audience: Upper-level graduate students and new Ph.D.'s with interest in learning about and applying generalizability theory in practical contexts; participants should have one course in measurement and some familiarity with analysis of variance.

Thursday, 8:00 a.m. - 5:00 p.m., Magnolia Ballroom III, EE

An Introduction to Student Growth Percentiles: Concepts, Calculation, and Use
  Damian Betebenner, National Center for the Improvement of Educational Assessment; Adam Van Iwaarden, University of Colorado

The proliferation of annual student testing during the last decade has left states and testing organizations with vast amounts of longitudinal assessment data. As a consequence, use of growth analyses to inform discussions about student growth and its relationship to education quality has become much more commonplace. In this training session, participants will be introduced to student growth percentiles (SGPs) and shown how to use the open source R software package together with the SGP package to calculate SGPs and percentile growth trajectories with large (e.g., state-level) longitudinal datasets. Student growth percentiles are currently at various stages of adoption in nearly 20 states. Topics covered will include a conceptual overview of student growth percentiles, data preparation, student growth percentile calculation, percentile growth trajectory calculation and their use with growth standard setting. The session will incorporate real-world examples of how the results of such analyses can be used as part of state and federal accountability systems to inform discussions about educational quality.

Intended Audience: State, District Assessment Coordinators, and graduate students.

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Thursday, 1:00 p.m. - 5:00 p.m., Azalea Ballroom I, FF
Managing Simulation Studies with R
Jessalyn Smith, CTB/McGraw-Hill; Brian Habing, University of South Carolina

Simulation studies to validate various procedures' effectiveness are a major part of quantitative and psychometric research. The R statistical package can be used to easily run and manage simulation studies, including those that need to call pre-existing programs such as BILOG, MPlus, NOHARM, PARSCALE, POLYEQUATE, and TESTFACT. This course will demonstrate how R can be used to easily generate a wide variety of data sets, create the command files and data sets required by other software, run the other software, and read in the output for further analysis

This course assumes that the participants have at least some familiarity with R – programming experience is not assumed. Participants are encouraged to bring their own (windows compatible) laptop computer and any executables that they need to integrate into their own simulation studies.

Intended Audience: Educational researchers who have some familiarity with R and run (or would like to run) their own simulation studies.

Thursday, 1:00 p.m. - 5:00 p.m., 12th Floor Ballroom II, GG - Webcast
A Practitioner's Introduction to Linking and Equating
Joseph Ryan, Arizona State University
Webcast Moderator: Luz Bay, Measured Progress

A variety of activities related to accountability compliance, assessment, validity, and transitions to tests or item banks developed by consortia are substantially supported or challenged by how test forms are linked or equated to each other and to appropriate content and performance standards. The intended audience for the workshop includes policy makers and practitioners whose decisions and activities can be facilitated with a conceptual understanding of linking and equating and also will be useful as a conceptual basis for those pursuing more technical psychometric studies.

The workshop objectives are to provide participants a practical understanding of:
1) The basic terms and concepts of equating;
2) Common designs used to collect data for equating;
3) The procedures applied to perform equating;
4) Common and emerging equating issues and challenges; and
5) Suggestions for managing assessment RFP's, technical documentation, and linking/equating evaluation criteria.

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The workshop emphasizes the importance of developing items and constructing tests to be parallel if the intent is to equate them. The presentation begins with a brief overview of assessment, validity, linking, and equating concepts. Major components of classical test theory and item response theory as they relate to linking and equating are presented. Equating designs and procedures are presented with examples and illustrations. Throughout the workshop, suggestions are offered for managing the linking and equating aspects of RFP's, contracted work, and technical documentation.

The workshop is presented using non-technical language, figures, and diagrams. Hard copies of the PowerPoint slides will be provided. The workshop follows the basic scope and sequence of A Practitioner's Introduction to Equating with Primers on Classical Test Theory and Item Response Theory (Council of Chief State School Officers, 2009). Participants are encouraged to ask questions through the session.

Intended Audience: Measurement practitioners and measurement graduate students.

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Friday, 8:00 a.m. - 12:00 noon, 12th Floor Ballroom II, HH - Webcast
Vertical Scaling Methodologies, Applications, and Research
Michael J. Kolen, University of Iowa; Ye Tong, Pearson

The potential need for constructing a vertical scale arises whenever a testing program has multiple grade levels and wishes to have a common scale to compare test scores across these grade levels. Vertical scaling uses statistical process to place test scores that measure similar content domain but at different educational levels onto a common scale. The goals of the session are for attendees to be able to understand the principles of vertical scaling, to conduct vertical scaling and to interpret the results of vertical scaling in reasonable ways. Vertical scaling will be contrasted with related equating and linking processes. Traditional and IRT vertical linking methodologies will be described and practical issues will be discussed.

The focus is on developing a conceptual understanding of vertical scaling through numerical examples and discussion of practical issues. Importance and challenges related to vertical scaling will be included. The text for the session is a chapter in the second edition of Kolen and Brennan's (2004) *Test Equating, Scaling, and Linking: Methods and Practices* (Second Edition).

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Intended Audience: Upper-level graduate students, new Ph.D.'s, testing professionals with operational or oversight responsibility for vertical scaling, and others with interest in learning about methods and practices. Participants should have taken at least two graduate course in measurement and two graduate courses in statistics.

Friday, 8:00 a.m. - 12:00 noon, Azalea Ballroom I, II
Tips for Graduate Students: Advice for Finishing School, Obtaining a Job, and Starting a Career
> *Deborah Harris, ACT, Inc.; Julio Sanclemente, CTB/McGraw-Hill; Andrew Ho, Harvard Graduate School of Education*

This training session is targeted toward graduate students in measurement who are unsure about what they should do as students to get ready for the job market, including questions about internships, courses to take, and dissertation topics, as well as those who want to know where measurement jobs are available beyond testing companies and universities, what types of things employers look for in application materials, what types of questions might be asked of an interviewee, what types of questions an interviewee might ask, what are good job talk strategies, and so on. This session will address practical topics graduate students in measurement are concerned about, targeting information to the particular group of attendees to ensure their needs are addressed. The format of the training session is a combination of lecture/discussion, with basic concepts introduced in a lecture format, with discussion and questions actively encouraged. Examples/activities will be used to demonstrate concepts and to provide participants with experience, such as providing participants with several job postings along with two or more sample resumes to illustrate tailoring the resume to a specific job listing, and looking at different styles of letters of recommendation to see which appear most effective. The session is informal, with the presenters interacting with each other, as well as the attendees, to ensure both a comfortable environment for asking questions, and to provide advice from a range of perspectives. Each participant will receive a packet of materials, including hard copy of materials to be used in the session, and a CD of full of reference materials ranging from advice from the presenters to career web sites and helpful articles.

Intended Audience: Graduate students.

Friday, 8:00 a.m. - 12:00 noon, Azalea Ballroom II, JJ
An Introduction to the Application of BMIRT and LinkMIRT: Bayesian Multivariate Item Response Theory Software
> *Lihua Yao, Defense Manpower Data Center; Ying Cheng, University of Notre Dame; Yuan Hong, American Institutes for Research*

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This training session is intended to support new users of BMIRT and LinkMIRT. BMIRT (Yao, 2003) is a computer program that uses the Markov Chain Monte Carlo method to estimate item and ability parameters in the multidimensional multi-group IRT framework; exploratory and confirmatory approaches are supported. LinkMIRT (Yao, 2004) is a linking software that links two sets of item parameters onto the same scale in the MIRT frame work.

This session is intended for researchers interested in working with dichotomous or polytomous data that is multidimensional in nature. BMIRTII, the second version of BMIRT, has more enhanced features such as computing test response function, higher-order IRT for domain scores and overall scores, overall scores by the maximum information method, MLE and MAP ability estimates, Classification accuracy and consistency, and DIF, to name a few. The focus of the workshop will be on application as opposed to theory; no programming skills are required.

Participants should bring laptop computers and any data they would like to use; java run time environment should be installed on the computer prior to the workshop. Software and samples should be downloaded prior to the workshop; they are available at www.BMIRT.com.

The participants will (a) understand appropriate uses of BMIRT and LinkMIRT, (b) understand BMIRT and LinkMIRT data input requirements and formats, (c) be proficient in the application of BMIRT and LinkMIRT, and (d) understand and be able to interpret BMIRT and LinkMIRT output files.

Intended Audience: Researchers who are interested in using software for multidimensional Item Response Theory model.

Friday, 8:00 a.m. - 5:00 p.m., 12th Floor Ballroom I, KK
A Flexible Software Tool for a Generalized Linear Mixed Model Approach to IRT
> *Paul De Boeck, University of Amsterdam; Sun-Joo Cho, Peabody College of Vanderbilt University*

Generalized linear mixed models (GLMM) provide a broad framework for modelling binary data and under certain assumptions also polytomous data. The lmer function of the lme4 package in R (http://cran.r-project.org/web/packages/lme4/) is a general purpose tool for the estimation of GLMMs, and therefore also for the estimation of a large class of item response models. Possible modelling features are person and item covariate effects and person-by-item effects (fixed and random), nested (multilevel) and crossed random effects (e.g., for random item effects), and multidimensionality. Also models for differential item functioning (DIF) and local dependence are instantiations of this framework. Learning to use lmer gives a deeper insight in item

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response theory (IRT) and its relationships with classical types of analysis (analysis of variance, regression analysis, factor analysis), as well as with approaches such as multilevel analysis and structural equation modelling.

The training session has two explicit objectives: (1) learning to use the general purpose software, and (2) learning to formulate item response models as generalized linear mixed models, so that one's view on possible item response models is extended and one is no longer limited to model-based software.

The whole session consists of exercises using the lmer function for an example dataset included in the lme4 package in R. The models, their structure, and relationships with other models are explained through estimation exercises.

Participants must bring a laptop with R downloaded, so that the lme4 library can be used. Advance knowledge of R is not required. A manuscript to be published in the Journal of Statistical Software is available as a guide and will be sent to the participants.

Intended Audience: Graduate students and other psychometricians interested in software tools for IRT and/or more generally in the structure of item response models.

Friday, 8:00 a.m. - 5:00 p.m., Magnolia Ballroom I, LL
Bayesian Networks in Educational Assessment
> *Duanli Yan, Educational Testing Service; Robert J. Mislevy, Educational Testing Service; Russell G. Almond, Florida State University; David M. Williamson, Educational Testing Service*

The Bayesian paradigm provides a convenient mathematical system for reasoning about evidence. Bayesian networks provide a graphical language for describing complex systems, and reasoning about evidence in complex models. This allows assessment designers to build scoring that have fidelity to cognitive theories about the domain and yet are mathematically tractable and can be refined with observational data. Topics covered in this tutorial are evidence-centered assessment design, basic Bayesian network representations and computations, available software for manipulating Bayesian networks, refining Bayesian networks using data, and example systems using Bayesian networks. It is recommended that participants bring a laptop to run sample exercises using the student version of Netica (http://www.norsys.com/).

Intended Audience: People interested in educational measurement.

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Friday, 8:00 a.m. - 5:00 p.m., Magnolia Ballroom III, MM
Assessing 21st Century Skills

Patrick Kyllonen, Educational Testing Service; Richard Roberts, Educational Testing Service; Jonas Bertling, Muenster University; Jeremy Burrus, Educational Testing Service

21st century skills are increasingly recognized as important determinants and reflections of success in education from K-12 through graduate and professional school. 21st century skills include critical thinking communication skills, collaborative problem solving, creativity, leadership, work ethic, cultural sensitivity, lifelong learning orientation, and others. In this training session we will review the process of developing and evaluating new assessments of 21st century skills. The training session will provide background theory and frameworks for developing 21st century skills assessments, and will provide hands-on experience in developing and evaluating such assessments.

We will cover the following topics:

- 21st century skills frameworks, models, and theories
- Developing assessments from construct definitions and item pools
- Various methods for assessing 21st century skills (e.g., self-assessments, others' ratings, situational judgment tests, anchoring vignettes, constructed response, simulations)
- Item writing
- The problem of coaching, faking, and miscalibrating on self- (and other-) assessments (preventing, detecting, and correcting for it)
- Delivery platforms (online and paper-and-pencil)
- Exploratory and confirmatory factor analysis and other data structure exploration methods
- Advanced methods (e.g., IRT, latent class models, unfolding, measurement invariance, multilevel analyses)
- Special topics (rating scale issues, creativity assessment, team assessment, cross-cultural assessment issues)
- Secondary analysis with large-scale assessments
- Example 21st century skills assessments (personal skills development for community college; open-ended collaborative problem solving for large-scale assessments, institutional reporting for K-12; higher education admissions)

Each of these topics will be organized as 10- to 30-minute sessions, with empirical examples provided, Q&A, and some hands-on exercises where appropriate.

Intended Audience: Researchers and practitioners who are interested in developing or using assessments of 21st century skills.

Friday, April 8, 2011

Friday, 1:00 p.m. - 5:00 p.m., 12th Floor Ballroom II, NN - Webcast
Linking and Aligning Scores and Scales

> *Jinghua Liu, Educational Testing Service; Neil J. Dorans, Educational Testing Service; Michael E. Walker, Educational Testing Service; Mary Pommerich, Defense Manpower Data Center*
> *Webcast Moderator: Ted Blew, Educational Testing Service*

The communication of linking issues to test score users is a critical component to ensuring the validity of a linkage. This training session seeks to facilitate communication about the appropriate use and interpretation of linked scores by emphasizing the different meanings that can be attached to different linkages, and the necessary requirements to achieve solid linkages. A foundations portion will present a historical perspective on score linking, provide definitions and distinctions between types of linkages, discuss relevant data collection designs, and give an overview of linking methodology and assumptions. A linking scenarios portion will make expanded distinctions between types of linkages and discuss practical issues in equating, tests in transition, concordance, vertical scaling, and linking group assessments to individual assessments. Results of recent studies as well as interactive computer simulations will illustrate the differences among types of linkages. A tools portion will discuss indices that can be used to choose an appropriate linkage type and methods that can be used to evaluate linkage quality. A score interpretation portion will focus on the appropriate usage and interpretation of linked scores, comparing and contrasting across the different linking scenarios.

Intended Audience: Testing professionals who conduct linkages and/or convey the results of linkages to non-practitioners and test score users with a measurement background.

Friday, 1:00 p.m. - 5:00 p.m., Azalea Ballroom I, OO
A Graduate Student's Guide to the Presentation and Publication Process

> *Ashleigh Crabtree, University of Iowa; Steven Wise, Northwest Evaluation Association; André Rupp, University of Maryland; Randy Bennett, Educational Testing Service; Susan Brookhart, Duquesne University*

This training session has four main components:
 1) Choosing the topic, including how to choose research topics that are relevant to the field, aligned with student interests, and likely to contribute to a larger body of research.
 2) Writing the conference proposal, including tips on how to get proposals accepted and dos and don'ts of the writing process.
 3) Planning and delivering the presentation, including how to create and give effective presentations.

Friday, April 8, 2011

4) Converting the conference paper into a publication, including how to revise the conference paper in order to target a new audience and tips from an experienced journal editor.

Intended Audience: Graduate students in the measurement field.

Friday, 1:00 p.m. - 5:00 p.m., Azalea Ballroom II, PP
Comprehensive Approaches to Validate Construct Invariance and Test Comparability for Federal and School Accountability Reporting Purposes
> *Huynh Huynh, University of South Carolina; Do-Hong Kim, University of North Carolina at Charlotte; Meagan Karvonen (guest instructor for qualitative methods), Western Carolina University*

Large-scale assessment programs oftentimes administer their tests under different modes of test administration. These modes include computer-based testing, paper-and-pencil testing, and oral administration. Under these situations, questions often arise on invariance of the construct being measured and comparability of the test scores. Technical advisory committees, testing agencies, and their contractors use different approaches to handle these issues. These approaches deal with data at the item, subtest, and overall test score levels. At the item level and with emphasis on the correct response, IRT (including Rasch) and DIF (such as MH) can be used. Also at the item level but with emphasis on type of content errors, loglinear models might be appropriate. At the subtest level, structural equation modeling (SEM) is often used. As for comparability of total test scores, procedures based on ANCOVA and HLM might be suitable. This course provides a demonstration of these approaches. Each approach answers a different type of question. As a result of attending the course, the participant is expected to be able to: (a) identify his/her type of invariance study, (b) collect the relevant data, and (c) use appropriate techniques to analyze the data in the light of the research questions. A short discussion about use of qualitative methods for small samples will be provided by the guest instructor at the conclusion of the course. The course is geared to an audience of advanced graduate students, professionals at testing organizations, and practitioners at the state or school district level. Participants are expected to be familiar with basic knowledge of applied statistics and technical aspects of assessment, and a level of awareness of operational and legal issues relating to school accountability and "No-Child-Left-Behind" legislation. Some familiarity with software such as SAS, MPLUS, LISREL, WINSTEPS, and PARSCALE is preferred but not required.

Intended Audience: Advanced graduate students, professionals at testing organizations, and practitioners at the state or school district level.

Saturday, April 9, 2011

Saturday, 8:00 a.m. - 12:00 noon, Terrace Room, QQ - Webcast
An Introduction to jMetrik: A Free and Open-Source Software Program for Comprehensive Psychometric Analysis
Patrick Meyer, University of Virginia; Emily Hailey, University of Virginia
*   Webcast Moderator: Christine Hutchinson, University of Virginia*

jMetrik is an innovative tool that combines a variety of psychometric procedures into a single software program with a user-friendly point-and-click interface. It features an integrated database for managing large numbers of data files, a simple graphical user interface, and a variety of statistical methods. Psychometric procedures include classical item analysis; reliability and decision consistency analysis; DIF analysis; nonparametric item characteristic curve estimation; JMLE estimation of Rasch, rating scale, and partial credit model parameters; IRT equating by mean/mean, mean/sigma, Haebara, and Stocking-lord; basic confirmatory factor analysis, and test scaling. As a pure Java application, it runs on windows, Linux, or Mac OSX operating systems using either 32- or 64-bit processors.

Participants will learn to use jMetrik for conducting a comprehensive psychometric analysis. All psychometric procedures will be reviewed and details of their implementation in jMetrik will be described. Participants should bring a laptop computer. Data files will be available but participants are encouraged to bring their own data in a comma delimited format. Software may be downloaded and installed prior to the session. jMetrik is available for free from www.ItemAnalysis.com.

Participants will learn how to:
1) Manage data: Import, export, and organize data
2) Graph data: Bar charts, pie charts, histograms, line plots, scatter plots, and kernel density estimates
3) Analyze data: Descriptive statistics, classical, and modern psychometric methods

Participants will receive a fully licensed and free copy of jMetrik (it is free software). Participants will receive practice data files, a copy of the presentation slides, and a software user manual draft.

Intended Audience: Measurement practitioners, professors teaching measurement, graduate students, and K-12 teachers.

Friday, 4:00 p.m. – 7:00 p.m., River Room

NCME Board of Directors Meeting

Members of NCME are invited to attend as observers.

Saturday, 8:15 a.m. - 10:15 a.m., Azalea Ballroom I, A1

Interpreting Growth on State Assessments – Paper Session

Moderator

Ye Tong, Pearson

Presenters

Anne Davidson, Nevada Department of Education, Chad Buckendahl, Alpine Testing Solutions, Damian Betebenner, National Center for the Improvement of Educational Assessment
Developing a Validity Framework for Establishing Expectations for Annual Student Growth

Derek Briggs, University of Colorado, Nathan Dadey, University of Colorado
Making Sense of Growth Trends in Academic Achievement among States with Vertically Scaled Assessments

Yun Xiang, Northwest Evaluation Association, Marty McCall, Northwest Evaluation Association, John Cronin, Northwest Evaluation Association
An Application of the Cross-Classified Growth Model: How Have High-Achieving Learners Performed and Grown in High-Poverty and Highly Segregated School Settings?

Adam Wyse, Michigan Department of Education, Ji Zeng, Michigan Department of Education, Joseph Martineau, Michigan Department of Education
A Graphical Transition Table for Communicating Status and Growth

Pamela Paek, National Center for the Improvement of Educational Assessment, Chris Domaleski, National Center for the Improvement of Educational Assessment
Measuring Growth for Students with Disabilities

Dongmei Li, ACT, Inc., Michael Kolen, University of Iowa
Relationships between Status, Simple Gain, Residual Gain, and Linear Growth

Saturday, 8:15 a.m. - 10:15 a.m., Azalea Ballroom II, A2

Computerized Adaptive Tests for Classification: Algorithms and Applications – Coordinated Session

Organizer

Hong Jiao, University of Maryland-College Park

Moderator

Robert Lissitz, University of Maryland-College Park

Presenters

G. Gage Kingsbury, Northwest Evaluation Association
Adaptive Testing for State Accountability: Creating Accurate Proficiency Levels and Measuring Student Growth

Nathan Thompson, Assessment Systems Corporation & University of Cincinnati, Shungwon Ro, Prometric
Likelihood Ratio Based Computerized Classification Testing

Robert Smith, Educational Testing Service, Charles Lewis, Fordham University
Computerized Mastery Testing: Using Bayesian Sequential Analysis to Make Multiple Classification Decisions

Hua-Hua Chang, University of Illinois at Urbana-Champaign
Making Computerized Adaptive Testing a Diagnostic Tool

Russell Almond, Florida State University
Utilities and Quasi-Utilities for Classification

Hong Jiao, University of Maryland-College Park, George Macready, University of Maryland-College Park, Junhui Liu, University of Maryland-College Park, Youngmi Cho, University of Maryland-College Park
A Mixture Rasch Model Based Computerized Classification Test

Discussant

Robert Mislevy, University of Maryland-College Park

Saturday, 8:15 a.m. - 10:15 a.m., Magnolia Ballroom I, A3

Factors Affecting the Quality of Equating – Paper Session

Moderator

Rochelle Michel, Educational Testing Service

Presenters

Liru Zhang, Delaware Department of Education, Allen Lau, Pearson
Examine the Effect of Policy Change on Equating

Sonya Powers, Pearson
Impact of Group Differences on Equating Accuracy and the Adequacy of Equating Assumptions

Chunxin Wang, ACT, Inc., Chunyan Liu, University of Iowa, Timothy Ansley, University of Iowa, Won-Chan Lee, University of Iowa
The Effect of Bootstrap Numbers on Estimating Standard Errors of Equating

Hua Wei, Pearson, Jie Lin, Pearson
Equating to the Item Bank or to the Previous Form: Does it Matter?

Hyeonjoo Oh, Educational Testing Service, Xiaoyu Qian, University of Delaware, Hongwen Guo, Educational Testing Service
Effects of Group Ability Differences and Group Variability on Equating Accuracy

YoungWoo Cho, ACT, Inc., Tawnya Knupp, ACT, Inc., Won-Chan Lee, University of Iowa, Deborah Harris, ACT, Inc.
Effects of Test Score Reliability on Linking

Discussant

Walter Way, Pearson

Saturday, 8:15 a.m. - 10:15 a.m., Magnolia Ballroom III, A4

New IRT Models – Paper Session

Moderator

Su Baldwin, National Board of Medical Examiners

Presenters

Laine Bradshaw, University of Georgia, Jonathan Templin, University of Georgia
A Nominal Response Model for Scaling Ability and Diagnosing Misconceptions

Hung-Yu Huang, Hsuan Chuang University, Wen-Chung Wang, The Hong Kong
Institute of Education
Testlet Response Models with Hierarchical Latent Traits

Nuo Xi, The Ohio State University, Michael Browne, The Ohio State University
The Underlying Bivariate Normal Approach for Fitting Factor Analysis Model to Ordinal Data

Yuan Hong, American Institutes for Research, Jimmy de la Torre, Rutgers, The State
University of New Jersey
Improving the Item Parameter Estimation Using a More General Multidimensional Item Response Theory Method

Aijun Wang, University of Georgia, Allan Cohen, University of Georgia
A Cross-Classified Multidimensional IRT Model

Discussant

Anton Beguin, CITO

Saturday, 8:15 a.m. - 10:15 a.m., 12th Floor Ballroom I, A5

Applications of Generalizability Theory in the Measurement of Instructional Practice – Coordinated Session

Organizer/Moderator

Jose Felipe Martinez, University of California, Los Angeles

Presenters

Charalambos Charalambous, Harvard Graduate School of Education, Matt Kraft, Harvard Graduate School of Education, Heather Hill, Harvard Graduate School of Education
Using Generalizability Theory to Develop Reliable and Cost-Effective Measures of Instructional Quality: Insights from the Mathematical Quality of Instruction Instrument (MQI)

Andres Martinez, University of Michigan, Andrew Mashburn, University of Virginia, Jason Downer, University of Virginia, Susan Rivers, Yale University, Marc Brackett, Yale University
Applying Generalizability Theory to Estimate Variance in Setting-Level Measures

Jose Felipe Martinez, University of California, Los Angeles, Hilda Borko, Stanford University, Brian Stecher, The RAND Corporation, Rebecca Luskin, University of California, Los Angeles, Matt Kloser, Stanford University
A Generalizability Study of an Artifact-Based Instrument for Measuring Quality Assessment Practice

Steven Raudenbush, University of Chicago, Andres Martinez, University of Michigan, Howard Bloom, MDRC, Pei Zhu, MDRC, Fen Lin, City University of Hong Kong
Studying the Reliability of Group-Level Measures with Implications for Statistical Power

Discussant

George Marcoulides, University of California, Riverside

Saturday, 8:15 a.m. - 10:15 a.m., 12th Floor Ballroom II, A6

NCME AND THE COUNCIL OF CHIEF STATE SCHOOL OFFICERS
Implementing Common Core Consortium Assessments with the Existing State Accountability Systems – Invited Symposium

Organizers

Anne Howard, The Council of Chief State School Officers
Wayne J. Camara, The College Board

Moderator

Chris Minnich, The Council of Chief State School Officers

Presenters

Joseph Willhoft, Smarter-Balanced Consortia

Joseph Martineau, Michigan Department of Education

Laura Slover, Achieve

Scott Norton, Louisiana Department of Education

Mark Reckase, Michigan State University

Saturday, 10:35 a.m. - 12:05 p.m., Azalea Ballroom I, B1

Analyzing the Design and Implementation of Scoring Rubrics for Alternate Assessments – Coordinated Session

Organizer/Moderator

Marianne Perie, National Council for the Improvement of Educational Assessment
Presenters

Marianna Quenemoen, National Alternate Assessment Center, Marianne Perie, National Council for the Improvement of Educational Assessment, Jacqui Kearns, University of Kentucky
A Proposed Typology of AA-AAS Scoring Approaches

Arthur Thacker, HumRRO, Andrea Sinclair, HumRRO, Emily Dickinson, HumRRO, Leslie Taylor, HumRRO
An Investigation of Kentucky's Approach to Scoring the Alternate Assessment Portfolio

Andrew Roach, Georgia State University, Melissa Fincher, Georgia Department of Education, Kris Varjas, Georgia State University, Namisi Chilungu, Georgia State University
Exploring Thought Processes Underlying the Scoring of Georgia's Alternate Assessment

Discussant

George Engelhard, Emory University

Saturday, 10:35 a.m. - 12:05 p.m., Azalea Ballroom II, B2

Scale Stability and Scale Drift – Paper Session

Moderator

Robert Smith, Educational Testing Service

Presenters

Ben Babcock, American Registry of Radiologic Technologists, Anthony Albano, University of Minnesota
Rasch Scale Drift Over Time: Examining When to Reset the Scale

Yu Fang, ACT, Inc., Zhongmin Cui, ACT, Inc.
Practical Issues in Maintaining IRT Scales Using Characteristic Curve Scaling Methods

Chien-Ming Chen, National Academy of Educational Research Preparatory, Yanlin Jiang, Educational Testing Service, Deping Li, Educational Testing Service
The Accuracy and Stability of a Chain of IRT Observed Score Equatings Using Various Scale Transformation Methods

Hongwen Guo, Educational Testing Service, Jinghua Liu, Educational Testing Service, Neil J. Dorans, Educational Testing Service, Miriam Feigenbaum, Educational Testing Service
Multiple-Linking Equating and Random Scale Drift

Yanxuan Qu, Educational Testing Service, Lixiong Gu, Educational Testing Service, Bihua Xiang, Educational Testing Service
Comparison of Frequency Estimation Method or Chained Equipercentile Method in Terms of Scale Stability

Discussant

Robert Smith, Educational Testing Service

Saturday, 10:35 a.m. - 12:05 p.m., Magnolia Ballroom I, B3

Upside Down Grade Inflation: Multiple Perspectives on Minimum Grading Policies – Coordinated Session

Organizer

S.E. Phillips, Consultant

Moderator

Michelle Croft, The Brookings Institution

Presenters

S.E. Phillips, Consultant
Presenter: Legal Perspective on Texas Minimum Grading Lawsuit

Joe Willhoft, Washington Office of Superintendent of Public Instruction
Reactor 1: Policy Perspective

Mike Beck, Questar Assessement Inc.
Reactor 2: Psychometric Perspective

Cornelia Orr, National Assessment Governing Board
Reactor 3: School/Student Accountability Perspective

Saturday, 10:35 a.m. - 12:05 p.m., Magnolia Ballroom III, B4

Item Modeling and Item Generation for the Measurement of Quantitative Skills: Recent Advances and Prospects – Coordinated Session

Organizer/Moderator

Isaac Bejar, Educational Testing Service

Presenters

Mark Gierl, University of Alberta, Cecilia Alves, University of Alberta
Using Item Models for Test Development and Item Generation with IGOR

James Fife, Educational Testing Service
Integrating Item Generation and Automated Scoring

Susan Embretson, Georgia Institute of Technology
Item Generation and Psychometrics: Overview of Appropriate Models

Isaac Bejar, Educational Testing Service
Item Generation in the Context of a Validity Argument

Discussants

Paul De Boeck, University of Amsterdam
Mary Pommerich, Defense Manpower Data Center

Saturday, 10:35 a.m. - 12:05 p.m., 12th Floor Ballroom I, B5

Technical Issues and Students with Disabilities – Paper Session

Moderator

Edynn Sato, WestEd

Presenters

Ian Hembry, University of Iowa, Catherine Welch, University of Iowa
A Generalizability Analysis for an Alternate Assessment Based on Modified Achievement Standards

Xia Mao, Pearson, Julie Miles, Pearson, James Ingrisone, Pearson
An Empirical Evaluation of the Technical Adequacy of a Statewide Alternative Assessment Based on Modified Achievement Standards

Minji Lee, University of Massachusetts, Amherst, Craig Wells, University of Massachusetts, Amherst, Stephen Sireci, University of Massachusetts, Amherst
Assessing Measurement Invariance in the Context of Disparate Sample Sizes and Proficiency Distribution

Tammiee Dickenson, University of South Carolina, Heather Bennett, University of South Carolina, Peter Beddow, Vanderbilt University, Ryan Kettler, Vanderbilt University, Grant Morgan, University of South Carolina, Joanna Gilmore, University of South Carolina
Enhancing the Accessibility of High School Science Tests: A Multi-State Experiment on AA-MAS Validity

Yuk Fai Cheong, Emory University, Jennifer Randall, University of Massachusetts, Amherst, George Engelhard, Emory University
Item Analysis by Hierarchical and Cross-Classified Models: An Application to a Statewide Reading Assessment Program

Discussant

Patricia McDivitt, Data Recognition Corporation

Saturday, 10:35 a.m. - 12:05 p.m., 12th Floor Ballroom II, B6

Panel on Innovative Opportunities and Measurement Challenges in Through-Course Summative Assessments: State RTTT Assessment Consortia Development Plans – Invited Symposium

Organizers

Pat Forgione, Center for K-12 Assessment & Performance Management
Nancy Doorey, Center for K-12 Assessment & Performance Management

Moderator

Pat Forgione, Center for K-12 Assessment & Performance Management

Overview Presentation

Nancy Doorey, Center for K-12 Assessment & Performance Management

Panelists

Randy Bennett, Educational Testing Service

Andrew Ho, Harvard Graduate School of Education

Michael Kane, Educational Testing Service

Michael Kolen, University of Iowa

Laurie Wise, Human Resources Research Organization

Rebecca Zwick, Educational Testing Service

Saturday, 12:25 p.m. - 1:55 p.m., Azalea Ballroom I, C1

Learning from Innovation: Refining the Practice of Automated Scoring of Essays – Coordinated Session

Organizer/Moderator

David Williamson, Educational Testing Service

Presenters

Kirk Becker, Pearson, Joshua Goodman, Pearson, Assessment & Information, John de Jong, Pearson/VU University Amsterdam
The Final Score: Constructing Item Scores from Components in an Automated Scoring System

Mo Zhang, Washington State University, David Williamson, Educational Testing Service, Catherine Trapani, Educational Testing Service, Vincent Weng, Educational Testing Service
Comparison of Scoring Model Calibration Methods Based on Distributional Targets

Catherine Trapani, Educational Testing Service, Brent Bridgeman, Educational Testing Service
Using Automated Scoring as a Trend Score: The Implications of Score Separation Over Time

Brent Bridgeman, Educational Testing Service
The Question of Validity and Differentially Valued Evidence

Chaitanya Ramineni, Educational Testing Service
Implications of Subgroup Differences in Agreement Between Automated and Human Scores

Discussants

Mark Shermis, The University of Akron
Walter Way, Pearson

Saturday, 12:25 p.m. - 1:55 p.m., Azalea Ballroom II, C2

Methodological Issues in the Analysis of Personality in Education – Coordinated Session

Organizer

Patrick Kyllonen, Educational Testing Service

Moderator

Richard Roberts, Educational Testing Service

Presenters

Matthias von Davier, Educational Testing Service, Bobby Naemi, Educational Testing Service, Richard Roberts, Educational Testing Service
Factorial Versus Typological Models for Data from Personality Tests and Survey Scales

Stephen Stark, University of South Florida, Oleksandr Chernyshenko, Nanyang Technological University Business School, Fritz Drasgow, University of Illinois at Urbana-Champaign
Adaptive Testing with the Multi-Unidimensional Pairwise Preference Model

Carolyn MacCann, The University of Sydney, Richard Roberts, Educational Testing Service
The Structure of Personality at High and Low Levels of Cognitive Ability

Duanli Yan, Educational Testing Service
A New Look at the Structure of Emotional Stability

Discussants

Paul De Boeck, University of Amsterdam
Patrick Kyllonen, Educational Testing Service

Saturday, 12:25 p.m. - 1:55 p.m., Magnolia Ballroom I, C3

To Break Trend or Not, That is the Question – Coordinated Session

Organizers

Young Yee Kim, American Institutes For Research
George Bohrnstedt, American Institutes for Research

Moderator

George Bohrnstedt, American Institutes for Research

Presenters

Jeffrey Nellhaus, Achieve, Peter Behuniak, University of Connecticut, Frances Stancavage, American Institutes for Research
Principles and Research Studies to Guide Decisions About Whether to Maintain or Break Trend When a New Assessment Framework is Introduced

Kim Gattis, American Institutes for Research, Young Yee Kim, American Institutes for Research, George Bohrnstedt, American Institutes for Research, Peter Ward, Windwalker/American Institutes for Research
To Break or Continue Trend: The Role of Content Comparisons of Old and New Assessment Frameworks

Rebecca Moran, Educational Testing Service, Meng Wu, Educational Testing Service
To Break or Continue Trend: The Role of Psychometric Studies of Old and New Items

Young Yee Kim, American Institutes for Research, Sharyn Rosenberg, American Institutes for Research, Teresa Neidorf, American Institutes for Research
To Break or Continue Trend: The Role of Cross-Assessment Item Pool Variation

Discussants

Peggy Carr, National Center for Education Statistics
Lorrie Shepard, University of Colorado at Boulder

Saturday, 12:25 p.m. - 1:55 p.m., Magnolia Ballroom III, C4

Innovations in Measurement 1 – Paper Session

Moderator

Tia Sukin, Measured Progress

Presenters

Matthew Johnson, Teachers College, Columbia University
A Bayesian Approach to Equivalent Groups Equating

Eduardo Cascallar, Catholic University Leuven, Mariel Musso, Catholic University Leuven / CONICET, Eva Kyndt, Catholic University Leuven, Monique Boekaerts, Leiden University
Assessment Without Testing: A Neural Networks Approach

Mark Raymond, National Board of Medical Examiners, Irina Grabovsky, National Board of Medical Examiners
Conditional Standard Errors of Measurement for Performance Ratings from Least Squares Regression

Rianne Janssen, University of Leuven
General Framework for Modeling Item-Order Effects

Lingling Ma, Northwest Evaluation Association, Steven Wise, Northwest Evaluation Association, Yeow Meng Thum, Northwest Evaluation Association, Gage Kingsbury, Northwest Evaluation Association
An Innovative Method of Detecting Item Response Time Threshold

Discussant

Hariharan Swaminathan, University of Connecticut

Saturday, 12:25 p.m. - 1:55 p.m., 12th Floor Ballroom I, C5

Assessing the Fit of Item Response Theory Models – Paper Session

Moderator

Venessa Lall, Educational Testing Service

Presenters

Kyong Hee Chon, Western Kentucky University
The Effect of Model-Data Misfit on IRT Equating in Constructed-Response Tests

Ying Li, University of Maryland-College Park, André Rupp, University of Maryland-College Park
Performance of the S-X2 Statistic for Full-Information Bifactor Models

Lei Wan, Pearson, Hua Wei, Pearson
An Empirical Examination of Two Item Model-Fit Indices Using Real Data

Su Zhang, Ontario Educational Quality & Accountability Office, Kathryn Cowles, University of Iowa, Steve Dunbar, University of Iowa
Prior Predictive Checking of Item Response Theory Models

Discussant

Roy Levy, Arizona State University

Saturday, 12:25 p.m. - 1:55 p.m., 12th Floor Ballroom II, C6

NATIONAL ASSOCIATION OF TEST DIRECTORS
Measuring Teacher Effectiveness in a Comprehensive Teacher Evaluation System: Accurate, Equitable, and Legally Defensible? – Invited Symposium

Organizer/Moderator

Vickie Cartwright, Orange County Public Schools

Presenters

Daniel McCaffrey, The RAND Corporation

Damian Betebenner, National Center for the Improvement of Educational Assessment

Peter Goldschmidt, University of California, Los Angeles

Discussants

Margaret Heritage, University of California, Los Angeles
Steve Cantrell, Bill & Melinda Gates Foundation

Saturday, 2:15 p.m. - 3:45 p.m., Azalea Ballroom I, D1

A Look at Our Psychometric History: Contributions of Cronbach, Lord, Novick, and Tucker – Invited Symposium

Organizers

Ronald Hambleton, University of Massachusetts, Amherst
Sandip Sinharay, Educational Testing Service

Moderator

Linda Cook, Educational Testing Service

Presenters

Robert Linn, University of Colorado
Contributions of Ledyard Tucker

Ronald Hambleton, University of Massachusetts, Amherst
Contributions of Frederic Lord

Robert Brennan, University of Iowa
Contributions of Lee Cronbach

Nancy Petersen, ACT, Inc.
Contributions of Melvin Novick

Saturday, 2:15 p.m. - 3:45 p.m., Azalea Ballroom II, D2

College Readiness, Career Readiness: Same or Different? – Coordinated Session

Organizer/Moderator

David Conley, University of Oregon

Presenters

David Conley, Educational Policy Improvement Center
Mapping the Domains of College Readiness and Career Readiness

Susan Loomis, National Assessment Governing Board
Overview of NAGB Studies Designed to Compare Workplace and College Preparedness

Richard Brown, University of Southern California
Aligning College Readiness and Career Readiness Standards: Technical Issues

Discussant

Wayne J. Camara, The College Board

Saturday, 2:15 p.m. - 3:45 p.m., Magnolia Ballroom I, D3

Recent Advances in Equating – Paper Session

Moderator

Qing Yi, Pearson

Presenters

Anne Huggins, University of Miami, Randall Penfield, University of Miami, Karina Gattamorta, University of Miami
Test Accommodations and Equating Invariance on a Fifth Grade Science Exam

Peng Lin, Educational Testing Service, Neil J. Dorans, Educational Testing Service
Assessing Invariance of Vertical Linking Functions

Zhan Shu, University of North Carolina at Greensboro, Robert Henson, University of North Carolina at Greensboro, Devdass Sunnassee, University of North Carolina at Greensboro, Andrew Dallas, University of North Carolina at Greensboro
Ellipse-Arc Equating Method for Small Sample Size Tests

Jinghua Liu, Educational Testing Service, Paul Holland, Paul Holland Consulting Corporation, Edward Curley, Educational Testing Service, Miriam Feigenbaum, Educational Testing Service
Test Score Equating Using a Mini-Version Anchor and an Anchor with Less Spread of Difficulty: A Case Study Using Operational Data

Discussant

Ourania Rotou, Educational Testing Service

Saturday, 2:15 p.m. - 3:45 p.m., Magnolia Ballroom III, D4

Application of Bayesian Methods to Item Response Theory – Paper Session

Moderator

Jonathan Templin, University of Georgia

Presenters

Yanyan Sheng, Southern Illinois University
A Gibbs Sampler for the Compensatory Multidimensional Model

Yue Liu, Beijing Normal University, Hongyun Liu, Beijing Normal University, Meijuan Li, Beijing Normal University
When Should we Use Testlet Model? A Comparison Study of Bayesian Testlet Model and Standard Bayesian Model

Leslie Hendrix, University of South Carolina, Brian Habing, University of South Carolina
Comparison of EM+E Method to MCMC Including PPMC Checks

Hye-Jeong Choi, University of Georgia, Karen Samuelsen, University of Georgia
On Sensitivity of Bayesian Estimator to the Priors in Mixture 3-PL Models

Discussant

Russell Almond, Florida State University

Saturday, 2:15 p.m. - 3:45 p.m., Terrace Room, D5

Computerized Adaptive Testing for Accountability – Invited Debate

Recently there has been a move towards exploring and implementing adaptive testing options for K12 accountability assessments. This debate will examine the pros and cons (from policy, psychometric, and logistical perspectives) of moving from linear-based assessments to item level adaptive assessments.

Organizer/Moderator

Cara Cahalan Laitusis, Educational Testing Service

Presenters

Tony Alpert, Oregon Department of Education

Stanley Rabinowitz, WestEd

vs.

Rachel Quenemoen, National Center on Educational Outcomes

Brian Gong, The National Center for the Improvement of Educational Assessment

Saturday, 2:15 p.m. - 3:45 p.m., River Room, D6

Modeling and Estimation with Multistage Testing – Paper Session

Moderator

Michael Jodoin, National Board of Medical Examiners

Presenters

Duanli Yan, Educational Testing Service
A Tree-Based Approach for Multi-Stage Testing

Lynn Chen, University of Texas at Austin, Barbara Dodd, University of Texas at Austin *The Effects of Test Structure, Routing Testing Length, and Total Test Length on Multistage Testing Using the Generalized Partial Credit Model*

Ru Lu, Educational Testing Service, Hong Jiao, University of Maryland-College Park
Modeling the Local Item Dependence with Multistage Tests

Steffi Pohl, Otto-Friedrich-University Bamberg, NEPS, Norman Rose, Friedrich-Schiller-University Jena, Claus Carstensen, Otto-Friedrich-University Bamberg
Multi-Stage Testing in Longitudinal Designs – Estimation of Item Parameters, Person Parameters, and Change Scores

Discussant

Jerry Gorham, Pearson

Saturday, 4:05 p.m. - 6:05 p.m., Azalea Ballroom I, E1

Policy and Performance Assessments – Paper Session

Moderator

James Ingrisone, Pearson

Presenters

William Roberts, National Board of Osteopathic Medical Examiners, Inc., Caitlin Dyer, National Board of Osteopathic Medical Examiners, Inc., Erik Langenau, National Board of Osteopathic Medical Examiners, Inc.
Multivariate Generalizability Analysis of a High-Stakes Medical Licensure Clinical Skills Examination

Ross Brown, Measurement Incorporated, Carol Myford, University of Illinois, Chicago
Investigating Method Effects in Performance Assessments

David Carless, University of Hong Kong
Formative Assessment as a Continuum of Enacted Practices

Susan Davis-Becker, Alpine Testing Solutions, Chad Buckendahl, Alpine Testing Solutions
An Empirical Evaluation of Using Domain Critical Errors in a Performance Assessment

Aminah F. Perkins, Emory University, Tawnya Knupp, ACT, Inc., Yi Cao, ACT, Inc.
The Effect of Weighting on Decision Consistency Indices for Mixed Format Assessments

Brett Foley, Alpine Testing Solutions
Realistic Expectations: State-Level Changes in the Percentage of Proficient Students, 2002-2008

Saturday, 4:05 p.m. - 6:05 p.m., Azalea Ballroom II, E2

DIVERSITY ISSUES AND TESTING COMMITTEE
Opportunities and Challenges to Meeting Diverse Needs Through Technology-Based Testing – Invited Symposium

Organizer/Moderator

Edynn Sato, WestEd

Presenters

Bob Dolan, Pearson
How Not to be Overly Accommodating: Supporting Diversity Through Inherent Flexibility

Michael Russell, Measured Progress
The Accessible Portable Item Profile Standards: What They Mean for Students with Disabilities and Special Needs

Rebecca Kopriva, Wisconsin Center for Education Research
The Promise of Computer-Interactive Test Task Environments for English Learners and Others with Language Challenges

Holly Spurlock, U.S. Department of Education, National Center for Education Statistics
Reaching Diverse Learners Using Technology-Based Assessment: A National Perspective

Tony Alpert, Oregon Department of Education
Universal Design via Embedding Accommodations into Computer-Based Testing Applications

Saturday, 4:05 p.m. - 6:05 p.m., Magnolia Ballroom I, E3

Item Parameter Drift – Paper Session

Moderator

Anthony Albano, University of Minnesota

Presenters

Alvaro Arce-Ferrer, Pearson, C. Allen Lau, Pearson
Statistical Properties of 3PL Robust Z: An Investigation with Real and Simulated Data Sets

Robert Cook, University of Massachusetts, Robert Keller, Measured Progress, Lisa Keller, University of Massachusetts, Amherst
An Investigation into the Long-Term Consequences of Pre-Equating Under Item Response Scaling Techniques

Tammy Trierweiler, Educational Testing Service, Jaime Cid, Educational Testing Service
The Effect of B-Parameter Drift and C-Parameter on Test Score Equating Over Multiple Testing Administrations

Yanmei Li, Educational Testing Service
Examining the Impact of Drifted Polytomous Anchor Items on TCC Linking

Patrick Meyer, University of Virginia
The Influence of Model Misspecification on Item Parameter Drift Statistics

Craig Wells, University of Massachusetts, Amherst, Kyung Han, Graduate Management Admission Council, Lisa Keller, University of Massachusetts, Amherst
Minimizing the Effect of Model Misfit on the Invariance Property for the Three-Parameter Logistic Model

Discussant

Deping Li, Educational Testing Service

Saturday, 4:05 p.m. - 6:05 p.m., Magnolia Ballroom III, E4

GRADUATE STUDENT ISSUES COMMITTEE
Translating Technical Material for Lay Audiences – Invited Symposium

Organizer

Chad Gotch, Washington State University

Moderator

Todd Rogers, University of Alberta

Presenters

Mary Pommerich, Defense Manpower Data Center

Leslie Lukin, Lincoln (NE) Public Schools

Roy Levy, Arizona State University

Damian Betebenner, National Center for the Improvement of Educational Assessment

Saturday, 4:05 p.m. - 6:05 p.m., Terrace Room, E5

Test Security Issues in the Modern Era of Assessment – Coordinated Session

Organizers

Karla Egan, CTB/McGraw-Hill
William Skorupski, University of Kansas

Moderator

Karla Egan, CTB/McGraw-Hill

Presenters

Marc Julian, CTB/McGraw-Hill, Gary Schaeffer, CTB/McGraw-Hill, Steve Ferrara, CTB/McGraw-Hill, Wim van der Linden, CTB/McGraw-Hill
Using Erasure Analyses to Address Potential Cheating

Zhan Shu, University of North Carolina at Greensboro, Ric Luecht, University of North Carolina at Greensboro, Robert Henson, University of North Carolina at Greensboro
Using the Deterministic, Gated IRT Model to Monitor Item Over-Exposure

Jessalyn Smith, CTB/McGraw-Hill, Zhan Shu, University of North Carolina at Greensboro
The Comparison Between the Deterministic, Gated IRT model with the lz Index ECI4 Indices

William Skorupski, University of Kansas, Karla Egan, CTB/McGraw-Hill
The Detection of Cheating through Hierarchical Growth Models

Wim van der Linden, CTB/McGraw-Hill, Charles Lewis, Fordham University
Bayesian Checks on Cheating on Tests

Discussants

James Wollack, University of Wisconsin-Madison
Bernard Veldkamp, University of Twente

Saturday, 4:05 p.m. - 6:05 p.m., River Room, E6

Item Selection and Item Calibration in Computer-Based Testing– Paper Session

Moderator

Usama Ali, University of Illinois at Urbana-Champaign

Presenters

Andreas Frey, Leibniz Institute for Science and Mathematics Education (IPN), Ying Cheng, University of Notre Dame, Nicki Seitz, Leibniz Institute for Science and Mathematics Education (IPN)
Content Control with the Maximum Priority Index Method in Multidimensional Adaptive Testing

Haiyan Lin, University of Illinois at Urbana-Champaign, Feiming Li, National Board of Osteopathic Medical Examiners, Inc., Linjun Shen, National Board of Osteopathic Medical Examiners, Inc., Hua-Hua Chang, University of Illinois at Urbana-Champaign
Adaptive Pretest Approaches and Online Calibration Methods For Linear Fixed-Length Computer-Based Tests

Lihua Yao, Defense Manpower Data Center
Multidimensional CAT Item Selection Methods for Domain Scores and Composite Scores

Tsung-Han Ho, Educational Testing Service
Item and Testlet Selection Procedures for Mixed-Format CAT Based on the Testlet Response Theory Model

Wei He, Northwest Evaluation Association, Marty McCall, Northwest Evaluation Association, Yeow Meng Thum, Northwest Evaluation Association, Carl Hauser, Northwest Evaluation Association
Pretest Item Calibration for Computerized Adaptive Test

Yuling Feng, University of South Carolina, Alan Huebner, ACT, Inc., Bruce Williams, ACT, Inc.
Online Pretest Item Calibration for Cognitive Diagnostic Computer Adaptive Testing

Discussant

Kirk Becker, Pearson VUE

Saturday, 6:15 p.m. – 7:30 p.m., Westin New Orleans Canal Place, 12th Floor Ballroom

NCME and AERA Division D Joint Welcome Reception for Current and New Members

Members of NCME and AERA Division D are invited to attend the NCME and AERA Division D Joint Welcome Reception for Current and New Members. Hors d'oeuvres and a cash bar will be available.

One free drink ticket for graduate students and new members of AERA Division D and NCME will be available at the desk near the entrance to the room. New members will wear blue ribbons on their conference badges. Please extend a welcome to them.

The reception is sponsored by:

> **ACT, Inc.**
> **American Institutes for Research**
> **Applied Measurement Professionals, Inc.**
> **Buros**
> **CTB/McGraw-Hill**
> **Educational Testing Service**
> **Graduate Management Admission Council**
> **HumRRO**
> **Law School Admission Council**
> **Measured Progress Inc.**
> **MetaMetrics**
> **National Council of State Boards of Nursing, Inc.**
> **Pacific Metrics**
> **Pearson**
> **Pearson VUE**
> **Riverside Publishing**
> **The College Board**
> **Westat**

Sunday, 8:00 a.m. – 9:30 a.m., Sheraton New Orleans Hotel, Armstrong Ballroom

NCME Breakfast and Business Meeting

Theater style seating will be available for those who did not purchase a breakfast ticket.

Sunday, 9:30 a.m. – 10:15 a.m., Sheraton Hotel, Armstrong Ballroom

NCME Presidential Address: Uncovering Educational Measurement and Assessment Professionals: Demographics, Education, Expertise, and Engagement

Presenter

Wayne J. Camara, The College Board

Sunday, 10:35 a.m. - 12:05 p.m., Azalea Ballroom I, F1

What's New from the "Educational Measurement: Issues and Practice" - A Sample of Recently Published Papers – Invited Symposium

Organizer/Moderator

Jacqueline Leighton, University of Alberta

Presenters

Susan Brookhart, Duquesne University
Educational Assessment Knowledge and Skills for Teachers

Xin Wei, SRI International, Edward Haertel, Stanford University
The Effect of Ignoring Classroom-Level Variance in Estimating the Generalizability of School Mean Scores

Lynne Hollingshead, Ontario Institute for Studies in Education, University of Toronto, Ruth Childs, Ontario Institute for Studies in Education, University of Toronto
Reporting the Percentage of Students Above a Cut Score: The Effect of Group Size

Gautam Puhan, Educational Testing Service, Longjuan Liang, Educational Testing Service
Equating Subscores Under the Non Equivalent Anchor Test (NEAT) Design

Discussant

Jacqueline Leighton, University of Alberta

Sunday, 10:35 a.m. - 12:05 p.m., Azalea Ballroom II, F2

Best Practices in Common Core Assessments: Psychometric Challenges for Mixed Format Tests – Coordinated Session

Organizer

J.P. Kim, ACT, Inc.

Moderator

Deborah Harris, ACT, Inc.

Presenters

Yi Cao, ACT, Inc., Tawnya Knupp, ACT, Inc.
The Effect of Weighting on Reliability and Classification for Mixed Format Tests

J.P. Kim, ACT, Inc., YoungWoo Cho, ACT, Inc.
Comparative Study of Concurrent and Separate Equipercentile Equating Methods for Mixed Formats under the Random Groups Design

Tianli Li, ACT, Inc., J.P. Kim, ACT, Inc.
Investigation of IRT Parameter Estimation and Scale Transformation Methods for Linking a Mixed Format Test to a Multiple Choice Item Test

Nathan Wall, University of Iowa, Tawnya Knupp, ACT, Inc.
The Effects of Multidimensionality Due to Item Format on IRT True and Observed Score Equating

Discussants

Mark Reckase, Michigan State University
Michael Kolen, University of Iowa

Sunday, 10:35 a.m. - 12:05 p.m., Magnolia Ballroom I, F3

Rater Issues – Paper Session

Moderator

Jilliam Joe, Educational Testing Service

Presenters

Mayuko Simon, Data Recognition Corporation, Xiaowen Zhu, Data Recognition Corporation, N. Scott Bishop, Data Recognition Corporation, Adisack Nhouyvanisvong, Naiku
An Empirical Comparison of Different Rater-Effects Adjustment Methods when Equating Mixed-Format Large-Scale State Assessments

Lawrence DeCarlo, Teachers College, Columbia University
Implications of a Signal Detection Rater Model for the Study of Rater Drift

YoungKoung Kim, The College Board, Lawrence DeCarlo, Teachers College, Columbia University, Won-Chan Lee, University of Iowa
On Implications of a Hierarchical Rater/Signal Detection Model for Linking with Constructed Response Items

Lihshing Leigh Wang, University of Cincinnati, Shuyan Sun, University of Cincinnati
Multi-Faceted Rasch Modeling of Rater-Mediated Evaluation Data for Dichotomous Classification Decisions

Zhen (Jane) Wang, Educational Testing Service, Lihua Yao, Defense Manpower Data Center
The Effects of Scoring Designs and Rater Severity on Students' Ability Estimation for Constructed Response Items

Discussant

Jilliam Joe, Educational Testing Service

Sunday, 10:35 a.m. - 12:05 p.m., Magnolia Ballroom III, F4

Multidimensional Item Response Theory Models – Paper Session

Moderator

Saba Rizavi, Consultant

Presenters

Tan Li, University of South Carolina, Brian Habing, University of South Carolina
The Influence of the Variable Compensation IRT Model on Conditional Covariances

Yang Lu, ACT, Inc., Mark Reckase, Michigan State University
The Comparison of Common Item Selection Methods in Vertical Scaling Under Multidimensional Item Response Theory

Ting Zhang, University of Maryland-College Park, Matthias von Davier, Educational Testing Service, Xueli Xu, Educational Testing Service
Examine Consistency of MIRT Ability Distribution Estimates in an International Large-Scale Assessment

Youngsoon So, University of California
The Usefulness of the Bifactor Model in a Second-Language Reading Comprehension Assessment

Tawnya Knupp, ACT, Inc., Won-Chan Lee, CASMA/University of Iowa
An Investigation into the Behavior of Estimated Decision Indices Based on the Multidimensional IRT Method of Estimation

Discussant

Paul De Boeck, University of Amsterdam

Sunday, 10:35 a.m. - 12:05 p.m., 12th Floor Ballroom II, F5

Career Award Address: The Contestant Perspective on Taking Tests

Moderator

Paul Holland, Paul Holland Consulting Corporation

Presenter

Neil J. Dorans, Educational Testing Service

Discussant

Mary Pommerich, Defense Manpower Data Center

Sunday, 10:35 a.m. - 12:05 p.m., 12th Floor Ballroom I, F6

Four Studies on the Use of Performance Data in Angoff-Style Standard Setting: Impact, Procedural Considerations and a Possible Alternative – Coordinated Session

Organizer/Moderator

Brian Clauser, National Board of Medical Examiners

Presenters

Melissa Margolis, National Board of Medical Examiners
The Impact of Examinee Performance Data on Angoff Study Outcomes

Janet Mee, National Board of Medical Examiners, Brian Clauser, National Board of Medical Examiners, Melissa Margolis, National Board of Medical Examiners
The Impact of Process Instructions on Judges' Use of Examinee Performance Data

Brian Clauser, National Board of Medical Examiners, Janet Mee, National Board of Medical Examiners, Melissa Margolis, National Board of Medical Examiners
The Effect of Data Format on Integration of Performance Data into Angoff Judgments

Jerome Clauser, University of Massachusetts, Amherst, Ronald Hambleton, University of Massachusetts, Amherst, Brian Clauser, National Board of Medical Examiners
An Investigation of Judge Variability in Making Angoff Judgments

Discussants

Michael Kane, Educational Testing Service
Stephen Sireci, University of Massachusetts, Amherst

Sunday, 12:25 p.m. - 1:55 p.m., Azalea Ballroom I, G1

Innovations in Test and Item Design Using Item Difficulty Modeling – Coordinated Session

Organizer/Moderator

Maria Martiniello, Educational Testing Service

Presenters

Kristen Huff, Regents Research Fund, Steve Ferrara, CTB/McGraw-Hill, Cynthia Hamen, The College Board, Christopher Lazzaro, The College Board
Identifying Sources of Cognitive Complexity in Science Assessment: A Case Study

Kathleen Sheehan, Educational Testing Service, Irene Kostin, Educational Testing Service, Yoko Futagi, Educational Testing Service
An Automated Approach for Modeling the Passage Complexity Component of Reading Item Difficulty

Maria Martiniello, Educational Testing Service, Paula Elosua, Universidad del Pais Vasco
Examining Sources of DIF for Language-Minority Groups in K-12 Mathematics Assessments

Joanna Gorin, Arizona State University
Novel IDM Applications: Special Test Populations and Uses

Discussants

André Rupp, University of Maryland-College Park
Jacqueline Leighton, University of Alberta

Sunday, 12:25 p.m. - 1:55 p.m., Azalea Ballroom II, G2

Innovations in Measurement 2 – Paper Session

Moderator

Irina Grabovsky, National Board of Medical Examiners

Presenters

William Schafer, University of Maryland, Bradley Coverdale, University of Maryland, Harlan Luxenberg, University of Maryland, Ying Jin, American Institutes for Research
Quality Control Charts in Large-Scale Assessment Programs

Matthew Burke, University of North Carolina at Greensboro, Zhan Shu, University of North Carolina at Greensboro
A Modification of the CUSUM Technique to Assess Convergence in MCMC Estimation

Kristen Burmester, University of California, Berkeley
Triangulating Validity Evidence: Classroom Discussions, Written Assessments, and Cognitive Interviews

Ping Chen, Beijing Normal University, Tao Xin, Beijing Normal University, Shu-Liang Ding, Jiangxi Normal University, Hua-Hua Chang, University of Illinois at Urbana-Champaign
Item Replenishing in Cognitive Diagnostic Computerized Adaptive Testing

Minjeong Jeon, University of California, Berkeley, Frank Rijmen, Educational Testing Service
Variational Approximate Inference for Item Response Models with Crossed Random Effects

Discussant

Irina Grabovsky, National Board of Medical Examiners

Sunday, 12:25 p.m. - 1:55 p.m., Magnolia Ballroom I, G3

Linking and Equating – Paper Session

Moderator

Jonathan Weeks, University of Colorado at Boulder

Presenters

Won-Chan Lee, University of Iowa, Robert Brennan, University of Iowa, Eunjung Lee, University of Iowa
Measurement Error and Equating Error: A Synthesis

Jiyun Zu, Educational Testing Service
Standard Error of Linear Equating for the NEAT Design with Nonnormality Distributed Data

Yi He, University of Iowa, Michael Kolen, University of Iowa
A Comparison of Mixed-Format Equating Methods Using Equating Properties

Judit Antal, The College Board, YoungKoung Kim, The College Board, Won-Chan Lee, University of Iowa
A Comparison of Presmoothing and Postsmoothing Methods for the Nonequivalent Groups with Anchor Test (NEAT) Design

Discussant

Dan Eignor, Educational Testing Service

Sunday, 12:25 p.m. - 1:55 p.m., Magnolia Ballroom III, G4

Estimating Parameters of Multidimensional Item Response Theory Models – Paper Session

Moderator

Zhushan Li, Boston College

Presenters

Chanho Park, ACT, Inc., Won-Chan Lee, University of Iowa
Fixed Parameter Calibration for Multidimensional IRT

Meng Wu, Educational Testing Service, Adrienne Sgammato, Educational Testing Service, Yue Jia, Educational Testing Service
Unidimensional and Composite Scaling Comparisons for NAEP

Shudong Wang, Northwest Evaluation Association, Hong Jiao, University of Maryland
Incorporating Person Covariates and Response Times as Collateral Information to Improve Person and Item Parameter Estimations

Junhui Liu, University of Maryland, Hong Jiao, University of Maryland
A Comparison of Estimation Methods for an Explanatory IRT Model with Person Covariates in Generalized (Non)Linear Mixed Model Framework

Litong Zhang, CTB/McGraw Hill, Jessalyn Smith, CTB/McGraw Hill, Craig Wheatley, University of South Carolina
Comparing the Accuracy of Parameter Estimates for Multidimensional Item Response Theory Models with SAS, Mplus, and NOHARM

Discussant

Mark Davison, University of Minnesota

Sunday, 12:25 p.m. - 1:55 p.m., 12th Floor Ballroom I, G5

Improving Assessment with Item Response Time Data – Coordinated Session

Organizer/Moderator

Brad Ching-Chao Wu, Pearson

Presenters

Xin Li, Pearson
Assessing Drift in Item Parameters and Item Response Times in CAT

Brad Ching-Chao Wu, Pearson
Incorporating Response Time to Improve Computer-Based Test Form Construction

Ming Lei, The College Board
How Much can Effect-Moderated IRT Model Improve Model Fit and Parameter Estimation in a Highly Speeded Test?

Hui-Juan Meng, Pearson
Detecting Aberrant Responses in Computer-Based Testing

Discussants

Kathleen Gialluca, Pearson
Steven Wise, Northwest Evaluation Association

Sunday, 12:25 p.m. - 1:55 p.m., 12th Floor Ballroom II, G6

Advanced Psychometric Models – Paper Session

Moderator

Mark Albanese, National Conference of Bar Examiners

Presenters

Alan Socha, Western Carolina University, Ellen Sigler, Western Carolina University
Profile Analysis via Multidimensional Scaling for the Revised Two-Factor Learning Process Questionnaire

Dong Gi Seo, University of Minnesota, David Weiss, University of Minnesota
The Bifactor Model and Its Application to Multidimensional Computerized Adaptive Test

Discussant

William Skorupski, University of Kansas

Sunday, 12:25 p.m. - 1:55 p.m., Terrace Room, G7

Mixture Item Response Theory Models – Paper Session

Moderator

Krista Breithaupt, Medical Council of Canada

Presenters

John Willse, University of North Carolina at Greensboro
Confirmatory Mixture Rasch Models for Diagnostic Classification

Yi-Hsin Chen, University of South Florida, Douglas Lunsford, University of South Florida
Latent Class Analysis of Test Anxiety Inventory: A Mixed Rasch Model

Natalia Alexeev, University of Georgia, Allan Cohen, University of Georgia, Noel Gregg, University of Georgia, Christy Jenkins, University of Georgia
Factors Affecting the Formation of Latent Classes in Mixture IRT Models

Daniel Van Nijlen, Katholieke Universiteit Leuven, Rianne Janssen, Katholieke Universiteit Leuven
Detecting Examinee Non-Effort with Mixture IRT Models

Yoon Soo Park, Teachers College, Columbia University, Young-Sun Lee, Teachers College, Columbia University
Investigating Item Parameter Drift Using Mixture IRT: An Application from TIMSS

Discussant

Matthias von Davier, Educational Testing Service

Sunday, 2:15 p.m. - 3:45 p.m., Azalea Ballroom I, H1

Possibilities and Limitations in Drawing Inferences from Large Scale Survey Assessments – Coordinated Session

Organizer/Moderator

Patrick Kyllonen, Educational Testing Service

Presenters

Eckhard Klieme, German Institute for International Educational Research (DIPF), Jan Hochweber, German Institute for International Educational Research (DIPF), Johannes Hartig, German Institute for International Educational Research (DIPF)
Measuring Efficacy, Efficiency, and Equity in Educational Systems and Institutions: The Case of PISA

Svenja Vieluf, German Institute for International Educational Research (DIPF)
Higher Order Measurement Invariance in PISA Questionnaires

David Kaplan, University of Wisconsin-Madison, Sarah Depaoli, University of Wisconsin-Madison
Bayesian Multilevel SEM for Predicting Student Achievement: An Application to PISA

Discussant

Andreas Oranje, Educational Testing Service

Sunday, 2:15 p.m. - 3:45 p.m., Azalea Ballroom II, H2

Modeling Growth – Paper Session

Moderator

Anne Davidson, Nevada Department of Education

Presenters

Feifei Ye, University of Pittsburgh, Wenyi You, Pearson
Multilevel Two-Parameter Item Response Model for Assessing the Effect of Student- and School-Level Predictors on Student Growth

Heather Buzick, Educational Testing Service
A Comparison of Regression-Based Growth Models for Students with Disabilities Taking a State General Accountability Assessment

Ye Tong, Pearson, Sz-Shyan Wu, New York State Education Department, Kimberly O'Malley, Pearson, Ming Xu, New York State Education Department
Growth Models and Their Extension

Katherine Furgol, University of Iowa
Contrasting OLS and Quantile Regression Approaches to Student Growth Percentiles

Maciej Jakubowski, OECD / WNE UW, Artur Pokropek, IFiS PAN / IBE
Assessing Achievement Growth Across Countries (International Value-Added)

Discussant

Shu Jing Yen, Center for Applied Linguistics

Sunday, 2:15 p.m. - 3:45 p.m., Magnolia Ballroom I, H3

**Estimating Parameters of Unidimensional Item Response Theory Models –
Paper Session**

Moderator

Matthew Burke, University of North Carolina at Greensboro

Presenters

James Gambrell, University of Iowa, Chunyan Liu, University of Iowa
WinBUGS vs. BILOG-MG for 3PL IRT Parameter Estimation

Tianshu Pan, Pearson
*Estimating the Rasch Model as a Logistic Regression Model to Reduce Bias of Maximum
Likelihood Estimate*

Edward Wolfe, Pearson Measurement
Investigation of Precision in Rasch Ability Estimation

Youngsuk Suh, University of Texas at Austin, Sun-Joo Cho, Vanderbilt University,
James Wollack, University of Wisconsin-Madison
A Comparison of Item Calibration Procedures in the Presence of Test Speededness

Discussant

H. Jane Rogers, University of Connecticut

Sunday, 2:15 p.m. - 3:45 p.m., Magnolia Ballroom III, H4

DIF Methodology – Paper Session

Moderator

Jill van den Heuvel, CTB/McGraw-Hill

Presenters

Hueying Tzou, National University of Tainan, Pei-Ming Chiang, National University of Tainan, Yuan-Sung Wang, National University of Tainan
The Effect of Linking Procedures on the Detection of Multidimensional Differential Item Functioning

Daniel Bowen, Measurement Incorporated, Kevin Joldersma, Measurement Incorporated
The Effects of Controlling for Distributional Differences on the Mantel-Haenszel Procedure in DIF Studies for Test Translations

Guo-Wei Sun, National Sun Yat-sen University, Graduate Institute of Education, Ching-Lin Shih, National Sun Yat-sen University, Graduate Institute of Education, Wen-Chung Wang, The Hong Kong Institute of Education, Assessment Research Centre
The Effect of DIF-free-then-DIF Strategy on Likelihood Ratio Test Method in Assessing Differential Item Functioning

Jyun-Hong Chen, National Chung Cheng University, Cheng-Te Chen, National Tsing Hua University, Ching-Lin Shih, National Sun Yat-sen University
Applying DIF-free-then-DIF Strategy on Hierarchical Generalized Linear Models for Differential Item Functioning Assessment

Rebecca Zwick, Educational Testing Service, Lei Ye, Educational Testing Service, Steven Isham, Educational Testing Service
Improving Mantel-Haenszel DIF Estimation Through Bayesian Updating

Discussant

Randall Penfield, University of Miami

Sunday, 2:15 p.m. - 3:45 p.m., 12th Floor Ballroom I, H5

**Perspectives on the History of Testing in the United States –
Coordinated Session**

Organizer/Moderator

Thanos Patelis, The College Board

Presenters

H.D. Hoover, University of Iowa
The Iowa Testing Programs

Richard Sawyer, ACT, Inc.
ACT: Fifty Years of Growth

Kurt Geisinger, The Buros Center for Testing
History of the Buros Center for Testing

Ida Lawrence, Educational Testing Service, Ed Shea, Educational Testing Service
A Brief History of Educational Testing Service as a Scientific Organization

Thanos Patelis, The College Board
The Formation of The College Board and the Context of Today

Discussant

Suzanne Lane, University of Pittsburgh

Sunday, 2:15 p.m. - 3:45 p.m., 12th Floor Ballroom II, H6

Invited Open Hearing for NCME Members: Comments on the Revision of the Standards for Educational and Psychological Testing

Organizer

Wayne J. Camara, The College Board

Moderators

David Frisbie, University of Iowa
Wayne J. Camara, The College Board

Panelists

Steve Ferrara, CTB/McGraw-Hill
Amanda Ferster, University of Georgia

Sunday, 2:15 p.m. - 3:45 p.m., Terrace Room, H7

Test Design and Assembly – Paper Session

Moderator

William Schafer, University of Maryland

Presenters

Michael Walker, Educational Testing Service, Sooyeon Kim, Educational Testing Service
Evaluating the Psychometric Properties of a Redesigned Test Without a Field Trial

Siang Chee Chuah, American Institute of Certified Public Accountants, Matthew Burke, American Institute of Certified Public Accountants
Predicting Item Difficulty: An Attempt to Simplify the Process

Changjiang Wang, Pearson, Luis Perea, Pearson
Automated Passage Selection for Reading Assessment

Pui Chi Chiu, University of Kansas, Patrick Irwin, University of Kansas
Chronological Item Ordering: Does It Make a Difference on a State History and Government Assessment?

Robert Lissitz, University of Maryland, Xiaodong Hou, University of Maryland, Sharon Slater, Educational Testing Service
The Contribution of Constructed Response Items to Large Scale Assessment: Measuring and Understanding Their Impact

Discussant

Cathy Wendler, Educational Testing Service

Sunday, 4:05 p.m. - 6:05 p.m., Azalea Ballroom I, l1

Standard Setting in an International Context: Issues and Practice – Coordinated Session

Organizer

Chad Buckendahl, Alpine Testing Solutions

Moderator

Yoonsun Lee, Seoul Women's University, South Korea

Presenters

Michael Rodriguez, University of Minnesota
Standard Setting Issues and Practice in Latin America

Abdullah Ferdous, American Institutes for Research, Chad Buckendahl, Alpine Testing Solutions
Evaluating Panelists Standard Setting Perceptions in Developing Nations

Mary Pitoniak, Educational Testing Service, Nan Yeld, University of Cape Town
Standard Setting Lessons Learned in the South African Context

Ardeshir Geranpayeh, University of Cambridge ESOL Examinations, Gad Lim, University of Cambridge ESOL Examinations
Post hoc Standard Setting to an International Language Framework: Findings and Challenges

Susan Davis-Becker, Alpine Testing Solutions, Chad Buckendahl, Alpine Testing Solutions
Using the Results of Multiple Standard Setting Methods to Inform Policy

Discussant

Greg J. Cizek, University of North Carolina at Chapel Hill

Sunday, 4:05 p.m. - 6:05 p.m., Azalea Ballroom II, I2

Scoring and Score Reporting – Paper Session

Moderator

Alvaro Arce-Ferrer, Pearson

Presenters

Adrienne Sgammato, Educational Testing Service
Performance of Reliability Measures for NAEP

Neil J. Dorans, Educational Testing Service, Jinghua Liu, Educational Testing Service
Assessing the Practical Equivalence of Conversions

Jisung Cha, Teachers College, Columbia University, Matthew S. Johnson, Teachers College, Columbia University
Application of Ordered Latent Class Regression Models in Educational Assessment Applied to TIMSS

John Denbleyker, Minnesota Department of Education, Shuqin Tao, Data Recognition Corporation
Diagnostic Item Analysis Using the Beta-Binomial Model and Common Language Effect Size

Youhua Wei, Educational Testing Service, Chi-Wen Liao, Educational Testing Service
A Study on Different Weighting Methods for Tests with Constructed Response Items

Discussant

Peter Baldwin, National Board of Medical Examiners

Sunday, 4:05 p.m. - 6:05 p.m., Magnolia Ballroom I, I3

Innovations in Standard Setting: Externally Benchmarked Performance Standards and the Uses of Achievement Level Descriptors – Coordinated Session

Organizers

Christina Schneider, CTB/McGraw-Hill
Kristen Huff, Regents Research Fund

Moderator

Karla Egan, CTB/McGraw-Hill

Presenters

Pamela Kaliski, The College Board, Kristen Huff, Regents Research Fund, Carol Barry, The College Board
Aligning Items and Achievement Levels: A Study Comparing Expert Judgments

Christina Schneider, CTB/McGraw-Hill, Karla Egan, CTB/McGraw-Hill, Kristen Huff, Regents Research Fund, Margie Tully, CTB/McGraw-Hill
Developing and Validating Range ALDs for Item Development: A Prediction Study

Steve Ferrara, CTB/McGraw-Hill, Dan Lewis, CTB/McGraw-Hill, Rick Mercado, CTB/McGraw-Hill, Juan D'Brot, West Virginia Department of Education, Jan Barth, CTB/McGraw-Hill, Karla Egan, CTB/McGraw-Hill
A Method for Setting Benchmarked Performance Standards: Workshop Procedures, Panelist Judgments, and Empirical Results

Wayne J. Camara, The College Board
Integrating Empirical Evidence in Standard Setting

Discussants

Barbara Plake, University of Nebraska Emeritus
Paul Nichols, National Center for the Improvement of Educational Assessment

Sunday, 4:05 p.m. - 6:05 p.m., Magnolia Ballroom III, I4

Validity and Fidelity: Assessing Practice Skills of Physicians – Coordinated Session

Organizers

Krista Breithaupt, Medical Council of Canada
Timothy Wood, Medical Council of Canada

Moderator

Krista Breithaupt, Medical Council of Canada

Presenters

Ilona Bartman, Medical Council of Canada, Sydney Smee, Medical Council of Canada, Marguerite Roy, Medical Council of Canada
Catching the Hawks and the Doves – Physician Examiner Leniency on Objective Structured Clinical Examinations

Krista Breithaupt, Medical Council of Canada, Timothy Wood, Medical Council of Canada
National Standards for International Medical Graduates – Evidence of the Validity of Clinical Skill Assessment Results

Marc Gessaroli, National Board of Medical Examiners
Using Structural Equation Modeling to Account for Rater Differences in a Standardized Patient Examination

Claire Touchie, University of Ottawa, Marty Friedlich, University of Ottawa
Direct Observations of Procedural Skills in an Objective Structured Clinical Exam (OSCE) Format

Discussant

John Boulet, FAIMER

Sunday, 4:05 p.m. - 6:05 p.m., 12th Floor Ballroom I, I5

Choice of the Anchor Test in Equating – Paper Session

Moderator

Michael Walker, Educational Testing Service

Presenters

Shuqin Tao, Data Recognition Corporation, Yi Du, Data Recognition Corporation, Christie Plackner, Data Recognition Corporation
The Effects of Anchor Characteristics on Equating for Multidimensional Tests with Mixed Formats

Lin Wang, Educational Testing Service, Jiahe Qian, Educational Testing Service, Yi-Hsuan Lee, Educational Testing Service
Exploring Alternative Designs Using Reduced Equating Samples and Anchors

Ourania Rotou, Educational Testing Service, Michael Walker, Educational Testing Service, Neil J. Dorans, Educational Testing Service
The Impact of Non-Representative Anchor Sets on the comparability of Test Scores for Mixed-Format Exams

Sarah Hagge, National Council of State Boards of Nursing, Michael Kolen, University of Iowa
The Impact of Equating Method and Format Representation of Common Items on the Adequacy of Mixed-Format Test Equating Using Nonequivalent Groups

Sooyeon Kim, Educational Testing Service, Michael Walker, Educational Testing Service
Does Linking Mixed-Format Tests Using a Multiple-Choice Anchor Produce Comparable Results for Male and Female Subgroups

Yuki Nozawa, ACT, Inc.
A Study on the Selection of an Old Form for Linear Equating Under the Common-Item Nonequivalent Groups Design

Discussant

Anne Fitzpatrick, Willow Farm

Sunday, 4:05 p.m. - 6:05 p.m., 12th Floor Ballroom II, I6

Will Common Core State Standards and Assessment Consortia Ensure Comparability of Assessment Results Across Students, Schools, Districts, and States? – Invited Symposium

Organizers/Moderators

Scott Marion, The National Center for the Improvement of Educational Assessment
Kristen Huff, Regents Research Fund

Presenters

Michael Kolen, University of Iowa

Suzanne Lane, University of Pittsburgh

Joseph Martineau, Michigan Department of Education

Discussants

Robert Brennan, University of Iowa
Deborah Harris, ACT, Inc.

Sunday, 4:05 p.m. - 6:05 p.m., Terrace Room, I7

Recent Advances in Computer-Based Testing – Paper Session

Moderator

HuiQin Hu, Data Recognition Corporation

Presenters

HuiQin Hu, Data Recognition Corporation, David Chayer, Data Recognition Corporation, Kei Bishop, Data Recognition Corporation, Pamela Hermann, Data Recognition Corporation
Investigation of Mode Effects on a Field Test: A Confirmatory Differential Item Functioning Analysis

Juan R. Barrada, Universidad Autonoma de Barcelona, Francisco J. Abad, Universidad Autonoma de Madrid, Julio Olea, Universidad Autonoma de Madrid
Optimal Number of Strata in the Maximum-Information-Stratified Method in Computerized Adaptive Testing

Leah Kaira, University of Massachusetts, Amherst, Wonsuk Kim, Measured Progress, Robert Keller, Measured Progress
Interpreting Effect Sizes in Comparability Studies: Does One Size Fit All?

Kyung (Chris) T. Han, Graduate Management Admission Council
Item Pocket Approach to Allow Response Review and Change in Computerized Adaptive Testing

Robert Semmes, University of Minnesota, Mark Davison, University of Minnesota, Lan Huang, University of Minnesota, Catherine Close, University of Minnesota
On the Reliability and Validity of a Numerical Reasoning Speed Dimension Derived from Response Times Collected in Computerized Testing

Hsiu-Yi Chao, National Chung Cheng University, Jyun-Hong Chen, National Chung Cheng University
Using New Stratification Strategies with General Test Overlap Control in Computerized Adaptive Testing

Discussant

Hua-Hua Chang, University of Illinois at Urbana-Champaign

Sunday, 4:05 p.m. – 6:05 p.m., Crescent Ballroom, I8

Graduate Student Poster Session

Sponsored by the Graduate Student Issues Committee

Organizers

Chad Gotch, Washington State University
Ying Li, University of Maryland-College Park
George MacDonald, University of South Florida
Aminah Perkins, Emory University
Chia-Lin Tsai, University of Missouri-Columbia
Robert Zwitser, Cito/University of Amsterdam

Presenters

Louise M. Bahry, University of Alberta, Andrea Gotzmann, University of Alberta
The Effect of Levels of Skewness on Item Parameter Recovery

Ying-Fang Chen, University of Maryland-College Park, Hong Jiao, University of Maryland-College Park
Explanation of Latent Differential Item Functioning Based on a Mixture Rasch Model: Characterizing Latent Classes by Linking with Background and Cognitive-Related Variables

Youn-jeng Choi, University of Georgia, Allan S. Cohen, University of Georgia, Seock-Ho Kim, University of Georgia
Detection of Differential Item Functioning in Multiple Groups

Jenna M. Copella, University of Massachusetts, Amherst, Craig S. Wells, University of Massachusetts, Amherst, Lisa A. Keller, University of Massachusetts, Amherst
Considerations for Interpreting Residuals in IRT Analyses

Yuling Feng, University of South Carolina, Brian Habing, University of South Carolina, Alan Huebner, ACT, Inc.
Parameter Estimation of the rRUM Using the E-M Algorithm

Jennifer Frey, Vanderbilt University, Stephen N. Elliott, Arizona State University
Social Skills Intervention Planning for Young Children: An Investigation of Parent and Teacher Social Behavior Importance Ratings

Sunday, 4:05 p.m. – 6:05 p.m., Crescent Ballroom, I8

Diane Gifford, Southern Methodist University
An Analytic Framework for Developing and Operationalizing a Test to Measure Higher-Order Processing of Text in Children

Chad M. Gotch, Washington State University, Brian F. French, Washington State University
Development of and Validity Evidence for the Teacher Educational Measurement Literacy Scale

Claudia Güerere, University of South Florida, Richard Brummer, University of South Florida, Yi-Hsin Chen, University of South Florida
Distinguishing Latent Classes of Mathematics Performance: A Comparison Between the Eastern and Western Countries

Matthew Gushta, University of Maryland-College Park & Wireless Generation
Evaluating Fit of the C-RUM Under Conditions of Q-Matrix Misspecification

Alexandra Henchy, University of Kentucky
An Investigation of Latino Students' Growth in Mathematics Achievement During the Elementary School Years

Maria Ilich, University of Washington
English Language Learners and Differential Item Functioning on Mathematics Items

Karoline Jarr, University of Iowa, Meridith Brand, University of Iowa, Catherine Welch, University of Iowa
Content and Response Process Validity Evidence: Relationships Between Prewriting Strategies and Performance on Timed Writing Assessments

Hyo Jeong Shin, University of California, Berkeley, Jinnie Choi, University of California, Berkeley
Detecting Rater Effects: Comparison of Many-Facet Rasch Model, Rater Bundle Model, and Hierarchical Rater Model

Dane Joseph, Pacific University, Michael S. Trevisan, Washington State University, Brian F. French, Washington State University, Andrew Storfer, Washington State University
A Comparison of Three Methods for Varying the Position of Correct Answers in Classroom Multiple-Choice Tests

Sunday, 4:05 p.m. – 6:05 p.m., Crescent Ballroom, I8

HeaWon Jun, Georgia Institute of Technology, Susan Embretson, Georgia Institute of Technology
Multidimensionality and Diagnosis in Mathematics Test for 8th Grade

Daniel Jurich, James Madison University, James R. Koepfler, James Madison University, Christine DeMars, James Madison University
Applying Missing Data Techniques to the Treatment of Rapid Responding

Jason P. Kopp, James Madison University, Daniel Jurich, James Madison University, Josh T. Goodman, Pearson, Kirk Becker, Pearson
An Application of Assessment Engineering Methods to Item Families

Sohee Kim, Sungshin Women's University, Myung-Yeon Kim, Sungshin Women's University, Taehoon Kang, Sungshin Women's University
A Comparison of MCMC and MMLE/EM Algorithms for Fixed Item Parameter Calibration

Jihye Kim, Georgia State University, Chris T. Oshima, Georgia State University
Controlling Type I Error Rate in Evaluating Differential Item Functioning for Raju's DFIT Framework and Lord's Chi-square Test: Use of Adjustment of Multiple Item Testing

Esra Kocyigit, Florida State University, Faith Orcan, Florida State University
An Application of Growth Mixture Modeling Using Math Achievement Data from a Large-Scale Assessment

Yi Li, Purdue University, Qiu Wang, Purdue University, Brandon Vaughn, Univerity of Texas at Austin
Compare Model Performance of Decision Tree with Logistic Regression, Mantel-Haenszel, IRT Likelihood Ratio, and MIMIC for Detecting DIF with Simulated Dichotomous Data

Yeongyu Lim, Georgia Institute of Technology, Susan Embretson, Georgia Institute of Technology
Relative Diagnosity: The Rule Space Model versus Normative Method

King Luu, Queen's University
A Universal Design Approach to Computer-Based Testing in a Higher Education Context

Juliette Lyons-Thomas, University of British Columbia
Validity Evidence in the Area of Accountability and Value-Added

Sunday, 4:05 p.m. – 6:05 p.m., Crescent Ballroom, I8

George MacDonald, University of South Florida, Thanh Pham, University of South Florida, Yi hsin Chen, University of South Florida, John Ferron, University of South Florida, Chunchua Cao, University of South Florida
Exploring and Validating the Cognitive Load for Mathematics Items: Comparing Canadian, Japanese, Taiwanese, and United States Students

Kimberly R. Marsh, James Madison University, Sara J. Finney, James Madison University, Robin D. Anderson, James Madison University, Anna Zilberberg, James Madison University
The Role of Students' Attitudes on the Validity of Institutional Accountability Test Scores: A Path Model

Youngshil Paek, University of Illinois at Urbana-Champaign
Computerized Adaptive Testing: Item Exposure Control Methods and Item Pool Characteristics

Ryoungsun Park, University of Texas at Austin, Jiseon Kim, University of Washington, Barbara G. Dodd, University of Texas at Austin, Hyewon Chung, John Jay College/CUNY
Automated Test Assembly of Multistage Testing Based on Mixed-Format Tests Using Linear Programming

JungYeon Park, Columbia University, Minsun Cho, Columbia University, Yoon Soo Park, Columbia University
Investigating Polytomous Mixture IRT Models Using the Children's Strengths and Difficulties Questionnaire

Chalie Patarapichayatham, University of Oregon, Akihito Kamata, University of Oregon, Hong Jiao, University of Maryland-College Park
Evaluation of the Ability Estimates Under the Bi-Factor Testlet Model

Jaime Peterson, University of Wisconsin-Milwaukee, Cindy Walker, University of Wisconsin-Milwaukee
An Investigation of Several Plausible Forms of Differential Item Functioning in Polytomous Items Using Poly-SIBTEST

Jongmin Ra, University of Georgia, Jaechul Kim, Hannam Univeristy
Impact of Direct Effect and Estimation Methods on SEM Fit Indices

Sunday, 4:05 p.m. – 6:05 p.m., Crescent Ballroom, I8

Stefano Rainelli, University of Miami, Rebecca J. Bulotsky-Shearer, University of Miami, Randall D. Penfield, University of Miami, Veronica A. Fernandez, University of Miami
Developing an Empirically Derived Cut-Score for the PreLAS 2000 for Low-Income Spanish Speaking Bilingual Children

Qi Guo, University of Alberta, Alex Riedel, University of Alberta
A Comparison of Logistic Regression, CSIBTEST, and Combined Decision Rule for Detection of Uniform and Nonuniform DIF Items Using Real Data

Joseph Rios, University of California, Riverside
Evaluating the Psychometric Properties of a Working Memory Measure for English Language Learners

Jacob Seybert, University of South Florida, Stephen Stark, University of South Florida, Sasha Chernyshenko, Nanyang Technological University, Alan Mead, Illinois Institute of Technology
Generalized Graded Unfolding Model DIF Detection Based on the Differential Functioning of Items and Tests Framework

MinJeong Shin, Yonsei University, Eujin Lim, Yonsei University, Guemin Lee, Yonsei University
Estimating Domain Scores for Mixed-Format Tests Under G-Theory and IRT Approaches

Whitney Smiley, James Madison University, Robin D. Anderson, James Madison University
A Scale Validation Study on a Short Form of the Cognitive Engagement Scale

Yu-Lan Su, University of Iowa/ACT, Inc., Rongchun Zhu, ACT, Inc., Xiaohong Gao, ACT, Inc.
An Empirical Study of the Influence of Different Test Modes on IRT Item Parameter Estimation and IRT Equating: Statistical Control on Samples and Linking Items

Ihui Su, University of Missouri-Columbia, Yong He, University of Missouri-Columbia
Detecting Differential Item Functioning: A Comparison Between Hierarchical Generalized Linear Modeling and Structural Equation Modeling Approaches

Devdass Sunnassee, University of North Carolina at Greensboro, Thomas P. Proctor, The College Board, Kelly E. Godfrey, The College Board
A Method to Detect Answer-Copying from a Test Center Perspective

Sunday, 4:05 p.m. – 6:05 p.m., Crescent Ballroom, I8

Yun Tang, University of Pittsburgh, Clement Stone, University of Pittsburgh
Evaluating Student Achievement from Large-Scale Assessments: A Case Illustration Using Propensity Scoring Methods

Wei Wang, University of Iowa, Chunyan Liu, University of Iowa, Won-Chan Lee, University of Iowa, Michael Kolen, University of Iowa
An Investigation of Item Fit for Large-Scale Mixed Format Tests

Xinrui Wang, University of North Carolina at Greensboro, Robert A. Henson, University of North Carolina at Greensboro
The Attribute Reliability for General CDM Models

Yao Wen, University of Wisconsin-Milwaukee, Bo Zhang, University of Wisconsin-Milwaukee
The Impact of Missing Data on Non-Normal Person Trait Estimation

Seo Young Lee, University of Wisconsin-Madison, Michelle Langer, National Conference of Bar Examiners, Mark Albanese, National Conference of Bar Examiners
Exploring the Structure of the MBE Using Exploratory and Confirmatory Factor Analysis

Hülya Yürekli, Florida State University, Akihito Kamata, University of Oregon
The Relationship Between Parameters From Two Polytomous Item Response Theory Models

Ou Zhang, University of Florida, M. David Miller, University of Florida
A Model Evaluation When Association Exists Between Testlets Under Small Testlet Size Situations

Xuechun Zhou, Michigan State University
Assessing Equating Results of Three IRT Methods

Monday, 5:45 a.m. – 7:30 a.m., Westin New Orleans Canal Place Lobby, 11th Floor

NCME Fitness Run/Walk

Organizers

Brian F. French, Washington State University
Jill van den Heuvel, CTB/McGraw-Hill

Run a 5K or walk a 2.5K course in downtown New Orleans. Meet in the lobby at 5:45 a.m. Pre-registration is required.

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Monday, 8:15 a.m. - 10:15 a.m., Azalea Ballroom I, J1

Maintaining the Stability of the Reported Scale Scores: Issue and Methods – Coordinated Session

Organizer/Moderator

Alina von Davier, Educational Testing Service

Presenters

Alina von Davier, Educational Testing Service, Minh Q. Duong, Michigan State University
Observed Score Equating with a Heterogeneous Target Population

Shelby Haberman, Educational Testing Service, Zhiming Yang, Educational Testing Service
Linking Parameter Estimates Derived From an Item Response Model Through Separate Calibrations

Jiahe Qian, Educational Testing Service, Yanming Jiang, Educational Testing Service, Alina von Davier, Educational Testing Service
Effects of Weighting Examinee Samples in TBLT IRT Linking

Yuming Liu, Educational Testing Service, Rick Morgan, Educational Testing Service, Brad Moulder, Educational Testing Service
Evaluating Equating Results from Uncertain Samples for Reasonableness

Discussants

Mark Reckase, Michigan State University
Bruno Zumbo, University of British Columbia

Monday, 8:15 a.m. - 10:15 a.m., Azalea Ballroom II, J2

Validity Issues – Paper Session

Moderator

Thanos Patelis, The College Board

Presenters

Brent Bridgeman, Educational Testing Service, Catherine Trapani, Educational Testing Service, Jennifer Bivens-Tatum, Educational Testing Service
Comparability of Essay Question Variants

Hsiang-Feng Chen, University of Kansas, John Poggio, University of Kansas, Aaron Gates, University of Kansas, Doug Glasnapp, University of Kansas, Linette McJunkin, University of Kansas
Addressing Issues of Fairness and Validity in the Program for International Student Assessment (PISA): An Examination of Cross-Cultural Patterns of Incorrect Responses to Multiple Choice Items

Katrina Crotts, University of Massachusetts, Amherst, April Zenisky, University of Massachusetts, Amherst
Evaluating Content Validity in a Multistage Adaptive Test

Paula Cunningham, University of Iowa, Anthony Fina, University of Iowa, William Adams, University of Iowa, Catherine Welch, University of Iowa
Impact of End-of-Course Tests on Accountability Decisions in Mathematics and Science

Tamar Kennet-Cohen, National Institute for Testing and Evaluation, Shmuel Bronner, National Institute for Testing and Evaluation, Carmel Oren, National Institute for Testing and Evaluation
The Consequences of Using the Highest Section Scores Across Test Dates for University Admissions

Gregory J. Cizek, University of North Carolina at Chapel Hill
Reconceptualizing Validity and the Place of Consequences

Discussant

Michael Kane, Educational Testing Service

Monday, 8:15 a.m. - 10:15 a.m., Magnolia Ballroom I, J3

Recent Advances in Diagnostic Classification Models – Paper Session

Moderator

André Rupp, University of Maryland-College Park

Presenters

Jimmy de la Torre, Rutgers, The State University of New Jersey, Jinsong Chen, Rutgers, The State University of New Jersey
Estimating Different Reduced Cognitive Diagnosis Models Using a General Framework

Zhimei Gu, Ontario Institute for Studies in Education of the University of Toronto, Eunice Jang, Ontario Institute for Studies in Education of the University of Toronto, Jimmy de la Torre, Rutgers, The State University of New Jersey
Evaluating the Diagnostic Potential of Distractors in Multiple-Choice Test Items Using the MC-DINA Model

Xiaomin Huang, University of Maryland-College Park
Cluster Sampling in the Mixture General Diagnostic Model

Yan Cai, Jiangxi Normal University, Shuliang Ding, Jiangxi Normal University, Dongbo Tu, Jiangxi Normal University
Developing A New Group-Level Cognitive Diagnosis Model

Ying Cui, University of Alberta, Mark Gierl, University of Alberta
Statistical Classification for Cognitive Diagnostic Assessment: An Artificial Neural Network Approach

Chun Wang, University of Illinois at Urbana-Champaign, Bo Wang, The College Board, Hua-Hua Chang, University of Illinois at Urbana-Champaign
An Enhanced Approach to Combine Item Response Theory with Cognitive Diagnosis in Adaptive Tests

Tien-yu Hsieh, Graduate Institute of Educational Measurement and Statistics, National Taichung University, Bor-chen Kuo, Graduate Institute of Educational Measurement and Statistics, National Taichung University, Chia-hua Lin, Graduate Institute of Educational Measurement and Statistics, National Taichung University
The Concurrent Calibration Method of High-Order Item Response Theory

Discussant

André Rupp, University of Maryland-College Park

Monday, 8:15 a.m. - 10:15 a.m., Magnolia Ballroom III, J4

Fairness Across Novel Item Types – Paper Session

Moderator

Carole Gallagher, WestEd

Presenters

Chao Wang, University of Colorado at Boulder, Guillermo Solano-Flores, University of Colorado at Boulder
Illustrations with Graphic Devices in Large-Scale Science Assessments: An Exploratory Cross-Cultural Study on Students, Perception, and Interpretation

Guillermo Solano-Flores, University of Colorado at Boulder, Chao Wang, University of Colorado at Boulder
Conceptual Framework for Analyzing and Designing Illustrations in Science Assessment: Development and Use in the Testing of Linguistically and Culturally Diverse Populations

Joni Lakin, Educational Testing Service
Innovations in Test Directions for Novel Item Formats and Culturally and Linguistically Diverse Students

Timothy Muckle, NBCRNA, Kirk Becker, Pearson VUE, Brad Wu, Pearson VUE
Investigating the Multiple Answer Multiple Choice Item Format

Maureen Kavanaugh, Boston College, Apryl Holder, Boston College
Recommendations for Improving the Accessibility of a Virtual Performance Assessment of Middle School Science Inquiry Skills

Teresa King, Educational Testing Service
Identifying Sources of Construct-Irrelevant Variance of Scenario-Based Computer-Delivered Mathematics Items for Students with Disabilities and English Language Learners

Discussant

Michael Rodriguez, University of Minnesota

Monday, 8:15 a.m. - 10:15 a.m., 12th Floor Ballroom I, J5

Fairness, DIF and Language Impact – Paper Session

Moderator

John W. Young, Educational Testing Service

Presenters

Tia M. Sukin, Measured Progress, Lisa Keller, University of Massachusetts, Amherst
Item Parameter Drift as an Indication of Differential Opportunity to Learn: An Exploration of Item Flagging Methods & Accurate Classification of Examinees

Debra Sandilands, University of British Columbia, Maria Elena Oliveri, University of British Columbia, Bruno D. Zumbo, University of British Columbia, Kadriye Ercikan, University of British Columbia
Investigating Sources of Differential Item Functioning in International Large-Scale Assessments Using a Confirmatory Approach

Daeryong Seo, Pearson, Husein Taherbhai, Pearson, Roger Frantz, Pearson
Exploring Different Item Profiles in English Language Proficiency (ELP) Listening Assessment Using Latent Mixture Distribution Analysis

Jaime Cid, Educational Testing Service, Jiyun Zu, Educational Testing Service, Gautam Puhan, Educational Testing Service
Examining the Effect of Primary Language on Equating Functions in MC and CR Tests

Discussant

John W. Young, Educational Testing Service

Monday, 8:15 a.m. - 10:15 a.m., 12th Floor Ballroom II, J6

Innovations in Scoring - Paper Session

Moderator

John Denbleyker, Minnesota Department of Education

Presenters

Carl Hauser, Northwest Evaluation Association, G. Gage Kingsbury, Northwest Evaluation Association, Ronald Houser, Northwest Evaluation Association
Individual Score Validity: Using the Wariness Index to Identify Test Performance to Treat with Caution

Leah Kaira, University of Massachusetts, Amherst, Stephen Sireci, University of Massachusetts, Amherst
Using Item Mapping to Evaluate Alignment between Curriculum and Assessment

Leslie Keng, Pearson, Laurie Davis, Pearson, Shelley Ragland, Pearson
An Evaluation of the Distributed Performance Scoring Model

Mark Shermis, The University of Akron, Michael S. Finger, American Institute of Certified Public Accountants, Doug Jones, University of Florida, Lindsey Tropf, University of Florida, Krista Breithaupt, Medical Research Council of Canada
e-rater® Feature and Holistic Score Correlates

Hao Song, American Board of Internal Medicine, Timothy Sares, American Board of Internal Medicine, Renbang Zhu, American Board of Internal Medicine, Rebecca Lipner, American Board of Internal Medicine
Assessing Decision Accuracy and Consistency of a Medical Certification Examination

Peter Foltz, Pearson Knowledge Technologies, Karen Lochbaum, Pearson Knowledge Technologies
Automated Scoring of Essays in the K-12 English Language Arts

Yigal Attali, Educational Testing Service
The Use of Automated Essay Scores in Graduate Admissions Putting the Innovation of Automated Essay Scoring into Operational Practice

Discussant

David Williamson, Educational Testing Service

Monday, 8:15 a.m. - 10:15 a.m., Terrace Room, J7

Equating Using Item Response Theory Models – Paper Session

Moderator

Feifei Li, Educational Testing Service

Presenters

Peter Baldwin, National Board of Medical Examiners
On Mean-Sigma Estimators and Bias

Daniel Jurich, James Madison University, Christine DeMars, James Madison
University, Joshua Goodman, Pearson
*Investigating the Impact of Cheating on IRT Equating under the Non-Equivalent
Anchor Test Design*

Wei Tao, ACT, Inc., Yi Cao, ACT, Inc., Ru Lu, Educational Testing Service
The Effect of IRT Model Selection on Testlet-Based Test Equating

Yanming Jiang, Educational Testing Service, Alina Von Davier, Educational Testing
Service, Jiahe Qian, Educational Testing Service
*Effects of Empirical Distributions on the Robustness of IRT Calibration and True Score
Equating*

Robert Smith, Educational Testing Service, Charles Lewis, Fordham University
IRT Median Equating Function to Achieve (Approximate) Median Equity

Teresa Dawber, Educational Testing Service, Liane Patsula, Educational Testing
Service, Feifei Li, Educational Testing Service, Maxwell Wise, Educational Testing
Service
*The Effect of Total Test and Anchor Test Difficulty Differences on IRT Equating under the
Common-Item Nonequivalent Groups Design*

Discussant

Michael Walker, Educational Testing Service

Monday, 10:35 a.m. - 12:05 p.m., Azalea Ballroom I, K1

AWARDS COMMITTEE
Award Winning Research from the NCME 2010 Award Recipients – Invited Symposium

Organizer/Moderator

Kadriye Ercikan, University of British Columbia

Presenters

Chia-Yi Chiu, Rutgers, The State University of New Jersey

Andrew Ho, Harvard Graduate School of Education

Joseph Patrick Meyer, University of Virginia

Damian Betebenner, National Center for the Improvement of Educational Assessment

Richard J. Wenning, Colorado Department of Education

Monday, 10:35 a.m. - 12:05 p.m., Azalea Ballroom II, K2

English Language Learners – Paper Session

Moderator

Teresa King, Educational Testing Service

Presenters

Fang Chen, University of North Carolina at Greensboro, Micheline Chalhoub-Deville, University of North Carolina at Greensboro
Differential Language Impact on Math Achievement: Overcoming the Limitations of Mean Regression Modeling

Maria Martiniello, Educational Testing Service
Exploring a Linguistically Simple Designated Anchor for Estimating IRT DIF for English Language Learners in Mathematics Assessments

Edynn Sato, WestEd, Stanley Rabinowitz, WestEd, Carole Gallagher, WestEd, Chun-Wei Huang, WestEd
Linguistic Modification: Construct Validity and Considerations of Interactions Among Student, Content, and Language Characteristics

Stanley Rabinowitz, WestEd, Edynn Sato, WestEd, Carole Gallagher, WestEd, Chun-Wei Huang, WestEd
Examining the Impact of Linguistic Modification: Implications of Using Different Scoring and Analysis Approaches

Discussant

Jamal Abedi, University of California, Davis

Monday, 10:35 a.m. - 12:05 p.m., Magnolia Ballroom I, K3

Erasure Analysis: Descriptives, Covariates, and Modeling Options from Multiple States – Coordinated Session

Organizer

N. Scott Bishop, Data Recognition Corporation

Moderator

Ronald Mead, Data Recognition Corporation

Presenters

Julie Korts, Data Recognition Corporation, Ronald Mead, Data Recognition Corporation, N. Scott Bishop, Data Recognition Corporation
Introduction and Background

Vincent Primoli, Data Recognition Corporation, Djibril Liassou, Data Recognition Corporation, Adisack Nhouyvanisvong, Naiku, N. Scott Bishop, Data Recognition Corporation
Erasure Descriptive Statistics and Covariates

N. Scott Bishop, Data Recognition Corporation, Djibril Liassou, Data Recognition Corporation, Okan Bulut, University of Minnesota, Dong Gi Seo, Michigan Department of Education, Kyoungwon Bishop, Data Recognition Corporation
Modeling Erasure Behavior

N. Scott Bishop, Data Recognition Corporation, Djibril Liassou, Data Recognition Corporation, Okan Bulut, University of Minnesota, Dong Gi Seo, Michigan Department of Education, Matthew Stearns, Data Recognition Corporation
Application and Comparison of Alternative Procedures

Ronald Mead, Data Recognition Corporation, Katie Andersen, Data Recognition Corporation, Julie Korts, Data Recognition Corporation
Erasure Behavior and Rasch Residuals

N. Scott Bishop, Data Recognition Corporation, Ronald Mead, Data Recognition Corporation
Closing Thoughts

Discussants

Gregory J. Cizek, University of North Carolina at Chapel Hill
James Wollack, University of Wisconsin-Madison

Monday, 10:35 a.m. - 12:05 p.m., Magnolia Ballroom III, K4

Analysis of Missing Data – Paper Session

Moderator

Ting Zhang, University of Maryland-College Park

Presenters

Michael Culbertson, University of Illinois at Urbana-Champaign
Is It Wrong? Handling Missing Responses in IRT

Taehoon Kang, Sungshin Women's University, Troy T. Chen, ACT, Inc.
Effect of Non-Ignorable Missing Data on the Accuracy of IRT Ability Estimation

Amanda Wolkowitz, Assessment Technologies Institute, William Skorupski, University of Kansas
A Method for Imputing Response Options for Missing Data on Multiple-Choice Assessments

Kuan-Yu Jin, The Hong Kong Institute of Education, Xuelan Qiu, The Hong Kong Institute of Education, Lei Wang, National Education Examinations Authority, China
Item Response Models for Examinee-Selected Items

Ben Domingue, University of Colorado at Boulder, Ed Wiley, University of Colorado at Boulder
The Impact of Missing Data in the Colorado Growth Model

Discussant

Holmes Finch, Ball State University

Monday, 10:35 a.m. - 12:05 p.m., 12th Floor Ballroom I, K5

Revising the Standards to Meet our Evolving Conceptions of Student Assessment – Coordinated Session

Organizers

Patricia McDivitt, Data Recognition Corporation
Don Klinger, Queen's University

Moderator

Don Yarbrough, University of Iowa

Presenters

Don Klinger, Queen's University

Don Yarbrough, University of Iowa

Patricia McDivitt, Data Recognition Corporation

Discussant

Todd Rogers, University of Alberta

Monday, 10:35 a.m. - 12:05 p.m., 12th Floor Ballroom II, K6

Understanding Teaching Quality in Algebra Classrooms – Invited Symposium

Organizer

Drew Gitomer, Educational Testing Service

Presenters

Drew Gitomer, Educational Testing Service
How Do We Study Teaching Quality in Algebra Classrooms? An Overview

Daniel McCaffrey, The RAND Corporation
Design Issues in Classroom Observation Studies - Negotiating Design Amidst the Reality of Schools

Courtney Bell, Educational Testing Service
What are We Learning About Teaching Quality?

Monday, 10:35 a.m. - 12:05 p.m., Terrace Room, K7

Item Response Theory – Paper Session

Moderator

Jodi Casabianca, Fordham University

Presenters

Yi-Hung Lin, University of California, Berkeley, Mark Wilson, University of California, Berkeley
Can We Rely Too Much on Testlet? The Influence of Testlet Effect on Parameter Estimation

Jinming Zhang, University of Illinois at Urbana-Champaign, Ting Lu, University of Illinois at Urbana-Champaign
The Role of Standard Errors of Item Parameter Estimators in IRT-Based Data Analysis

Angela Grima, Consultant, Lihua Yao, DoD Data Center, Pentagon
Classification Consistency and Accuracy for Test of Mixed Item Types: Unidimensional Versus Multidimensional IRT Procedures

Shun-Wen Chang, National Taiwan Normal University, Shin Teng, National Yang-Ming University, Chia-Feng Lu, National Yang-Ming University
Effects of Score Transformation on the Composite Scores Under the Multivariate Proficiency Distribution Using IRT

Jodi Casabianca, Fordham University, Charles Lewis, Fordham University
The Impact of IRT Item Parameter Estimation Error on IRT True Score Equating Functions and CSEMs: A Robustness Study

Discussant

Liru Zhang, Delaware Department of Education

Monday, 12:25 p.m. - 1:55 p.m., Azalea Ballroom I, L1

Next Generation Performance Assessments and the Assessment of College Readiness – Coordinated Session

Organizer

Scott Marion, National Center for the Improvement of Educational Assessment

Moderator

Brian Gong, National Center for the Improvement of Educational Assessment

Presenters

Scott Marion, National Center for the Improvement of Educational Assessment
But is it Worth the Time? Addressing the Information Value Concerns of Performance Assessments

Laurie Wise, Human Resources Research Organization (HumRRO)
Situating Generalizability Issues and Concerns of Performance Assessments within a Validity Framework

Derek Briggs, University of Colorado at Boulder
Linking Performance Assessments: Learning from the Past, Looking to the Future

Randy Bennett, Educational Testing Service
The Role of Technology in Performance Assessment

Discussant

Brian Gong, National Center for the Improvement of Educational Assessment

Monday, 12:25 p.m. - 1:55 p.m., Azalea Ballroom II, L2

Issues with Multistage Testing – Paper Session

Moderator

Duanli Yan, Educational Testing Service

Presenters

Xueli Xu, Educational Testing Service, Andreas Oranje, Educational Testing Service, Emmanuel Sikali, National Center for Education Statistics, Ed Kulick, Educational Testing Service
Multi-Stage Testing in Educational Survey Assessments

Yi Zheng, University of Illinois at Urbana-Champaign, Hua-Hua Chang, University of Illinois at Urbana-Champaign
Automatic On-the-Fly Assembly for Computer Adaptive Multistage Testing

Robin Guille, American Board of Internal Medicine, Kirk Becker, Pearson, Renbang Zhu, American Board of Internal Medicine, Yanling Zhang, American Board of Internal Medicine, Hao Song, American Board of Internal Medicine, Linan Sun, Pearson
Comparison of Asymmetric Early Termination Ca-MST with Linear Testing

Elizabeth Stone, Educational Testing Service, Linda Cook, Educational Testing Service
Designing an Adaptive Test of Reading Comprehension for Students with Learning Disabilities: Exploring the Quality of a Routing Test

Discussant

Neal Kingston, University of Kansas

Monday, 12:25 p.m. - 1:55 p.m., Magnolia Ballroom I, L3

Assessing the Quality of Inference from Diagnostic Classification Models – Paper Session

Moderator

Deanna Morgan, The College Board

Presenters

Olga Kunina-Habenicht, J.W. Goethe University Frankfurt, André Rupp, University of Maryland-College Park, Oliver Wilhelm, University of Duisburg-Essen
Detection of Model Misspecification and its Impact on Parameter Estimation Accuracy in Diagnostic Classification Models

Olga Kunina-Habenicht, Max-Planck Institute for Educational Research, André Rupp, University of Maryland-College Park, Oliver Wilhelm, Humboldt University Berlin
A Comprehensive Investigation of the Structure of a Diagnostic Assessment for Mathematics in Elementary School using Multidimensional Measurement Models for Cognitively Diagnostic Inferences

Robert Henson, University of North Carolina at Greensboro
Dimensionality for Diagnostic Classification Models: Computing a "Scree Plot"

Tzu-Yun Chin, Buros, Kurt Geisinger, Buros, Yongwei Yang, Gallup
Classification Accuracy of Diagnostic Methods: A Simulation Study

Jonathan Templin, University of Georgia, Laine Bradshaw, University of Georgia
A Hypothesis Test for Attribute Hierarchies in Diagnostic Classification Models

Discussant

Brian Habing, University of South Carolina

Monday, 12:25 p.m. - 1:55 p.m., Magnolia Ballroom III, L4

Use of Timing Data – Paper Session

Moderator

Jodi Casabianca, Fordham University

Presenters

Nilufer Kahraman, National Board of Medical Examiners, Polina Harik, National Board of Medical Examiners, Monica Cuddy, National Board of Medical Examiners, Brian Clauser, National Board of Medical Examiners
Modeling Response Times and Examinees' Pacing Behavior Using Latent Growth Curve Models

Chi-wen Liao, Educational Testing Service, Yanxuan Qu, Educational Testing Service, Rick Morgan, Educational Testing Service
Differential Speededness and its Impact on the Observed Score Equating of a Reading Test

Eileen Talento-Miller, Graduate Management Admission Council, Fanmin Guo, Graduate Management Admission Council, Kyung Han, Graduate Management Admission Council Examining Test Speededness by Native Language*

Branin Bowe, University of Oregon, G. Gage Kingsbury, Northwest Evaluation Association, Steve Wise, Northwest Evaluation Association, Lingling Ma, Northwest Evaluation Association
The Utility of the Effort-Moderated IRT Model in Reducing Negative Score Bias Associated with Unmotivated Examinees

Discussant

Brent Bridgeman, Educational Testing Service

Monday, 12:25 p.m. - 1:55 p.m., 12th Floor Ballroom I, L5

Measuring a Learning Progression for Data Modeling: Psychometric Modeling and Issues – Coordinated Session

Organizer/Moderator

Elizabeth Ayers, University of California, Berkeley

Presenters

Rich Lehrer, Vanderbilt University, Mark Wilson, University of California, Berkeley
Developing Assessments of Data Modeling: Construct Maps as Boundary Objects

Robert Schwartz, University of California, Berkeley, Shih-Ying Yao, University of California, Berkeley, Elizabeth Ayers, University of California, Berkeley
Mapping a Learning Progression Using Unidimensional and Multidimensional Item Response Modeling

Ronli Diakow, University of California, Berkeley, David Torres Irribarra, University of California, Berkeley
Analyzing the Complex Structure of a Learning Progression: Structural Construct Models

Elizabeth Ayers, University of California, Berkeley, Mark Wilson, University of California, Berkeley
Pre-Post Analysis Using a 2-Dimensional IRT Model

Discussants

Doug Clements, University at Buffalo, The State University of New York
Frank Rijmen, Educational Testing Service

Monday, 12:25 p.m. - 1:55 p.m., 12th Floor Ballroom II, L6

Battling Test Cheaters: How Are We Doing? – Invited Symposium

Organizer

John Fremer, Caveon Test Security

Presenters

John Fremer, Caveon Test Security
Best Practices in Test Security in National and International Testing Programs

Wim J. van der Linden, CTB/McGraw-Hill, Minjeong Jeon, University of California, Berkeley
Detecting Suspicious Erasures on Answer Sheets

James A. Wollack, University of Wisconsin-Madison
Answer Copying Detection: Yesterday, Today, and Tomorrow

Gregory J. Cizek, University of North Carolina at Chapel Hill
Test Security Concerns for K-12 Testing Programs: What Has Changed and What Hasn't

Monday, 12:25 p.m. - 1:55 p.m., Terrace Room, L7

Curriculum Based Measurement and Response to Intervention – Paper Session

Moderator

Cara Cahalan Laitusis, Educational Testing Service

Presenters

Minjung Kim, University of Kansas, Neal Kingston, University of Kansas
The Efficacy of Curriculum-Based Measurement: A Meta-Analysis

Joseph Nese, University of Oregon, Bitnara Park, University of Oregon, Akihito Kamata, University of Oregon, Julie Alonzo, University of Oregon, Gerald Tindal, University of Oregon
The Reliability of CBM Reading Growth Estimates for Different Student Groups

Susan Barnes, James Madison University, Melinda Burchard, James Madison University
Examining Characteristics of the Response to Intervention Self-Efficacy Scale

Discussants

Gerald Tindal, University of Oregon
Susan Loomis, National Assessment Governing Board

Monday, 2:15 p.m. - 3:45 p.m., Azalea Ballroom I, M1

Measuring College and Career Readiness: Validity Evidence and Frameworks for Interpretation and Use – Invited Symposium

Presenters

Paul Nichols, Pearson
The Role of Audience in Validity Arguments for College and Career-Readiness Measures

Catherine Welch, University of Iowa, Stephen Dunbar, University of Iowa
K-12 Assessments and College Readiness: Necessary Validity Evidence for Educators, Teachers, and Parents

Wayne J. Camara, The College Board, Andrew Wiley, The College Board, Jeffrey Wyatt, The College Board
College Readiness and Success: Bridging the Gap Between Judgment and Predictive Evidence

Susan Loomis, National Assessment Governing Board
A Validity Framework for Reporting Preparedness of 12th Graders for Post-Secondary College and Career Courses

Discussant

Barbara Dodd, University of Texas at Austin

Monday, 2:15 p.m. - 3:45 p.m., Azalea Ballroom II, M2

What's New from the *Journal of Educational Measurement*: A Sample of Recently Accepted Papers – Invited Symposium

Organizer/Moderator

Brian Clauser, National Board of Medical Examiners

Presenters

Leslie Rutkowski, Indiana University
The Impact of Missing Background Data on Subpopulation Estimation

Sandip Sinharay, Educational Testing Service, Shelby J. Haberman, Educational Testing Service
Equating of Augmented Subscores

Youngsuk Suh, University of Texas at Austin
A Nested Logit Approach for Investigating Distractors as Causes of Differential Item Functioning

Lisa Keller, University of Massachusetts, Amherst
Considering Criteria: An Investigation of New Criteria Used to Evaluate Equating Methods

Discussant

Brian Clauser, National Board of Medical Examiners

Monday, 2:15 p.m. - 3:45 p.m., Magnolia Ballroom I, M3

Test Scores for Prediction – Paper Session

Moderator

Susan Davis-Becker, Alpine Testing Solutions

Presenters

Hao Ren, Michigan State University, Dong-In Kim, CTB/McGraw-Hill, Furong Gao, CTB/McGraw-Hill
Benchmark Assessment Result as a Performance Predictor on Summative Assessment: Evaluation of Statistical Approaches

Gretchen Anderson, Center for Educational Testing and Evaluation, Neal Kingston, Center for Educational Testing and Evaluation
The Efficacy of Using State Standards-Based Assessments for Predicting Student Success in Community College Classes

Steven Culpepper, University of Colorado at Denver
Is Over-Prediction Real? How Likely Are You to Find Differential Prediction?

Krista D. Mattern, The College Board, Brian F. Patterson, The College Board
Test of Slope and Intercept Bias in College Admissions

Discussant

Kadriye Ercikan, University of British Columbia

Monday, 2:15 p.m. - 3:45 p.m., Magnolia Ballroom III, M4

Standard Setting – Paper Session

Moderator

Leslie Keng, Pearson

Presenters

Ying Lu, Educational Testing Service, Lixiong Gu, Educational Testing Service
The Impact of Scoring Method on Performance Data Using Cutscores from Bookmark Standard Setting

Mary Hansen, Robert Morris University, Peter Heh, University of Pittsburgh, Nancy Harayama, Boston University, Steven Lyon, University of Pittsburgh, Naomi Zigmond, University of Pittsburgh
Informing Test Design through Comparisons of Student Response Data and Performance Level Descriptors (PLDs)

Deanna Morgan, The College Board, Chad Buckendahl, Alpine Testing Solutions
Evaluating a Strategy for Setting Cut Scores on a Computer Adaptive Test

N. Scott Bishop, Data Recognition Corporation, Adisack Nhouyvanisvong, Naiku, Xiaowen Zhu, Data Recognition Corporation, Djibril Liassou, Data Recognition Corporation
Establishing Cut Scores on a Modified Assessment for NCLB Using an Ordered-Item Angoff Standard Setting Methodology

Yeow Meng Thum, Northwest Evaluation Association
Standard Setting as a Scaling Problem: A Compound Likelihood Approach

Discussant

Patricia Baron, Educational Testing Service

Monday, 2:15 p.m. - 3:45 p.m., 12th Floor Ballroom I, M5

Rasch Scaling in an Accountability Context: Consideration for the Accuracy and Consistency of Test Results – Coordinated Session

Organizer

Venessa Lall, Educational Testing Service

Moderator

Dianne Henderson-Montero, Educational Testing Service

Presenters

Lora Monfils, Educational Testing Service, Weiling Deng, Educational Testing Service
The Impact of Anchor Difficulty Distribution on Maintaining Scale Stability over Time

Venessa Lall, Educational Testing Service, Lixiong Gu, Educational Testing Service
Different Methods of Adjusting for Form Difficulty Under the Rasch Model: Impact on Consistency of Assessment Results

Zhiming Yang, Educational Testing Service, Shameem Gaj, Educational Testing Service
The Impact of Different WINSTEPS Control Options on Raw-to-Scale-Score Conversion Tables

Edward Wolfe, Pearson, Mike McGill, Iowa State University
A Comparison of Asymptotic and Bootstrap Item Fit Indices in Identifying Misfit to the Rasch Model

Discussants

Joseph Ryan, Arizona State University
Richard Patz, CTB/McGraw-Hill

Monday, 2:15 p.m. - 3:45 p.m., 12th Floor Ballroom II, M6

Innovations in the Automated Scoring of Spoken Responses – Coordinated Session

Organizer/Moderator

David Williamson, Educational Testing Service

Presenters

Carol Chapelle, Iowa State University
Technological Innovation in Speaking Assessment: Validity Considerations at the Design Stage

Alistair VanMoere, Knowledge Technologies, Pearson
Evaluating the Constructs and Automated Scoring Performance for Speaking Tasks in the Versant Tests and PTE Academic

Xiaoming Xi, Educational Testing Service
Adapting the SpeechRater Capability to the Development of Automated Scoring for Heterogeneous Speaking Tasks

Eva Baker, University of California, Los Angeles/CRESST, Marcus Iseli, University of California, Los Angeles/CRESST
Automated Scoring of Complex Performance

Derrick Higgins, Educational Testing Service
The Impact of Automated Speech Recognition System Accuracy on the Performance of an Automated Scoring Engine for Spoken Responses

Discussants

Craig DeVille, Measurement Incorporated
Lyle Bachman, University of California, Los Angeles

Monday, 2:15 p.m. - 3:45 p.m., Terrace Room, M7

Test Security – Paper Session

Moderator

Michelle Langer, National Board of Medical Examiners

Presenters

Dmitry Belov, Law School Admission Council
Detection of Answer Copying Based on the Structure of a High-Stakes Test

James Wollack, University of Wisconsin-Madison, Dennis Maynes, Caveon Test Security
Detection of Test Collusion Using Item Response Data

Mabel Kung, California State University, Fullerton, Ronald Armstrong, Rutgers, The State University of New Jersey
CUSUM Methods for Polytomous and Continuous Item Response Models

Russell Smith, Alpine Testing, Susan Davis-Becker, Alpine Testing
Detecting Suspect Examinees: An Application of Differential Person Functioning Analysis

Yu Zhang, Federation of State Boards of Physical Therapy, Cynthia Searcy, Federation of State Boards of Physical Therapy, Lindsay Hawkins, Federation of State Boards of Physical Therapy
Mapping Clusters of Aberrant Test Response Patterns

Discussant

Karla Egan, CTB/McGraw-Hill

Monday, 4:05 p.m. - 6:05 p.m., Azalea Ballroom I, N1

**Assessing Dimensionality Using Factor Analysis and Other Techniques –
Paper Session**

Moderator

Jaime Cid, Educational Testing Service

Presenters

Ze Wang, University of Missouri
*Assessing Measurement Invariance of Complex Data with Presence of Ordinal
Indicators*

Brandon Loudermilk, University of South Carolina, Frank Igou, Louisiana Tech
University
Investigation of Multidimensionality in a Statewide Music Assessment

Angela Tombari, University of Kentucky, Michael Toland, University of Kentucky,
Elizabeth Sparks, University of Kentucky
Parallel Analysis with Ordinal Data Under Complex Structure

Hanwook Yoo, University of Massachusetts, Amherst, Jianbin Fu, Educational
Testing Service, Maxwell Wise, Educational Testing Service, Seungchee Chung,
Educational Testing Service
*Dimensionality Analysis of Cognitively Based Assessment of, for, and as Learning
(CBAL) Reading Tests*

Discussant

Edward Wolfe, Pearson

Monday, 4:05 p.m. - 6:05 p.m., Azalea Ballroom II, N2

Comparability Issues with "Common" and Uncommon Assessments – Coordinated Session

Organizer/Moderator

Scott Marion, National Center For the Improvement of Educational Assessment

Presenters

Marianne Perie, National Center for the Improvement of Educational Assessment
What Do We Want to Compare and Why? Policymakers' Interests in Comparing Performance Across States, Consortia, and Nations

Scott Marion, National Center for the Improvement of Educational Assessment
An Overview of Comparability Challenges Faced by the Assessment Consortia

Katie Buckley, Harvard University, Pamela Paek, National Center for the Improvement of Educational Assessment
Approaches for Maintaining and Evaluating Comparability across Assessments: Lessons from England

Discussants

Howard Everson, City University of New York
Phoebe Winter, Pacific Metrics

Monday, 4:05 p.m. - 6:05 p.m., Magnolia Ballroom I, N3

Vertical Equating and Academic Growth – Paper Session

Moderator

Dena Pastor, James Madison University

Presenters

Marc Johnson, Pearson, Qing Yi, Pearson
Investigating Common-Item Screening Procedures in Developing a Vertical Scale

Shu Jing Yen, Center for Applied Linguistics, Litong Zhang, CTB/McGraw-Hill, Joanna Tomkowicz, CTB/McGraw-Hill
The Impact of Vertical Scaling Anchor Sets Decisions on Student Growth

Ou Zhang, University of Florida, Charles Depascale, National Center for the Improvement of Educational Assessment, M. David Miller, University of Florida
How Subgroup Characteristics Effect Equating Methods' Academic Growth Detection?

Assunta Hardy, Brigham Young University, Michael Young, Pearson, Qing Yi, Pearson, Richard Sudweeks, Brigham Young University, Damon Bahr, Brigham Young University
Investigating the Content and Construct Representation of a Common-Item Design when Creating a Vertical Scale

Weiling Deng, Educational Testing Service, Lora Monfils, Educational Testing Service
Long-Term Effects of Valid Case Inclusion Criteria on Capturing Growth Under IRT Equating

Discussant

Lihua Yao, DoD Data Center

Monday, 4:05 p.m. - 6:05 p.m., 12th Floor Ballroom I, N4

Innovations in Measurement in Early Childhood Early Literacy – Coordinated Session

Organizers

Michael Rodriguez, University of Minnesota
Scott McConnell, University of Minnesota

Moderator

Michael Rodriguez, University of Minnesota

Presenters

Alisha Wackerle-Hollman, University of Minnesota
Construct Identification to Support Early Literacy Measurement

Tracy Bradfield, University of Minnesota
Task Development and Item Analyses in Innovative Measures of Early Literacy

Anthony Albano, University of Minnesota
Scaling Individual Growth and Development Indicators: Early Literacy Measurement

Michael Rodriguez, University of Minnesota
Standard Setting with Innovative Measures of Early Literacy

Monday, 4:05 p.m. - 6:05 p.m., Magnolia Ballroom III, N5

Detecting DIF – Paper Session

Moderator

Andrea Gotzmann, University of Alberta

Presenters

Muhammad Naveed Khalid, University of Cambridge, Ardeshir Geranpayeh, University of Cambridge
Detection of Differential Item Functioning and Scale Purification

Brian French, Washington State University, Holmes Finch, Ball State University
The Accuracy of Crossing SIBTEST for Detecting Uniform and Non-Uniform DIF in a Single Analysis

Randall D. Penfield, University of Miami
Can a Single Differential Distractor Functioning Effect Lead to a Large DIF Effect?

Holmes Finch, Ball State University, Brian French, Washington State University
The Impact of Group Pseudo-Guessing Parameter Differences on the Detection of Uniform and Nonuniform DIF

Ronna Turner, University of Arkansas, Wallace Gitchel, West Virginia University
Comparing Type I Error and Power Rates in DIF Analyses when Combining Significance Tests with Effect Size Criteria

Cindy M. Walker, University of Wisconsin-Milwaukee, Bo Zhang, University of Wisconsin-Milwaukee, Kathleen Banks, University of Iowa, Kevin Cappaert, University of Wisconsin-Milwaukee
An New Perspective on Effect Size Guidelines for SIBTEST

Discussant

Kimberly Swygert, National Board of Medical Examiners

Monday, 4:05 p.m. - 6:05 p.m., 12th Floor Ballroom II, N6

Issues with Computer-Based Testing – Paper Session

Moderator

Angela Grima, Consultant

Presenters

Alan Huebner, ACT, Inc., Yuling Feng, University of South Carolina, Chun Wang, University of Illinois at Urbana-Champaign
Strategies for Controlling Item Exposure Rates in Cognitive Diagnostic Computerized Adaptive Testing

Hui Deng, The College Board
The Effects of Item Pool Characteristics on Accuracy of Ability Estimation and Classification in CAT

Joyce Wang, CTB/McGraw-Hill, Bokhee Yoon, American Institute for Research
Comparability Between Computer Adaptive and Paper-and- Pencil Administration of a Norm Referenced Test – Establish Links to Norm Scores in CAT Mode

Tian Song, Pearson, Mark Reckase, Michigan State University
The Effect of Fitting a Unidimensional IRT Model to Multidimensional Data in Content-Balanced Computerized Adaptive Testing

Kyoko Ito, Human Resources Research Organization, Daniel Segall, Defense Manpower Data Center
A Comparison of Four Procedures for Obtaining Information Functions for Scores from Computerized Adaptive Tests Using an Optimally Distributed Item Pool

Shalini Kapoor, University of Iowa, Catherine Welch, University of Iowa
Comparability of Paper and Computer Administrations in Terms of Proficiency Interpretations

Discussant

Michael S. Finger, American Institute of Certified Public Accountants

Monday, 4:00 p.m. – 7:00 p.m., River Room

NCME Board of Directors Meeting

Members of NCME are invited to attend as observers.

Author Index

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