



National Council on Measurement in Education

2010 Training Sessions
April 29-30, 2010

2010 Annual Meeting
May 1-3, 2010

Denver, Colorado

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Oranje, Andreas	Smith, Wendy	Wu, Meng
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Pak, Seohong	Sudweeks, Richard	Xu, Xueli
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Romero, Sonia	Walker, Cindy	Zhu, Xiaowen
Rubright, Jonathan	Walker, Michael	
Rupp, André	Wang, Aijun	

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Meeting Locations

The 2010 Training Sessions and Annual Meeting will be held at the Sheraton Denver Downtown Hotel. The Joint Reception and NCME Breakfast, Business Meeting, and Presidential Address will be held at the Hyatt Regency Denver.

Future Annual Meetings

2011 Annual Meeting

April 7 - 11

New Orleans, Louisiana

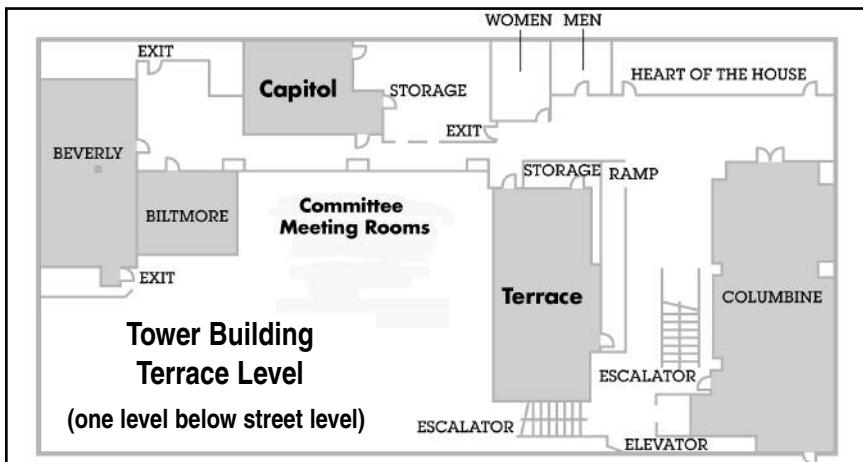
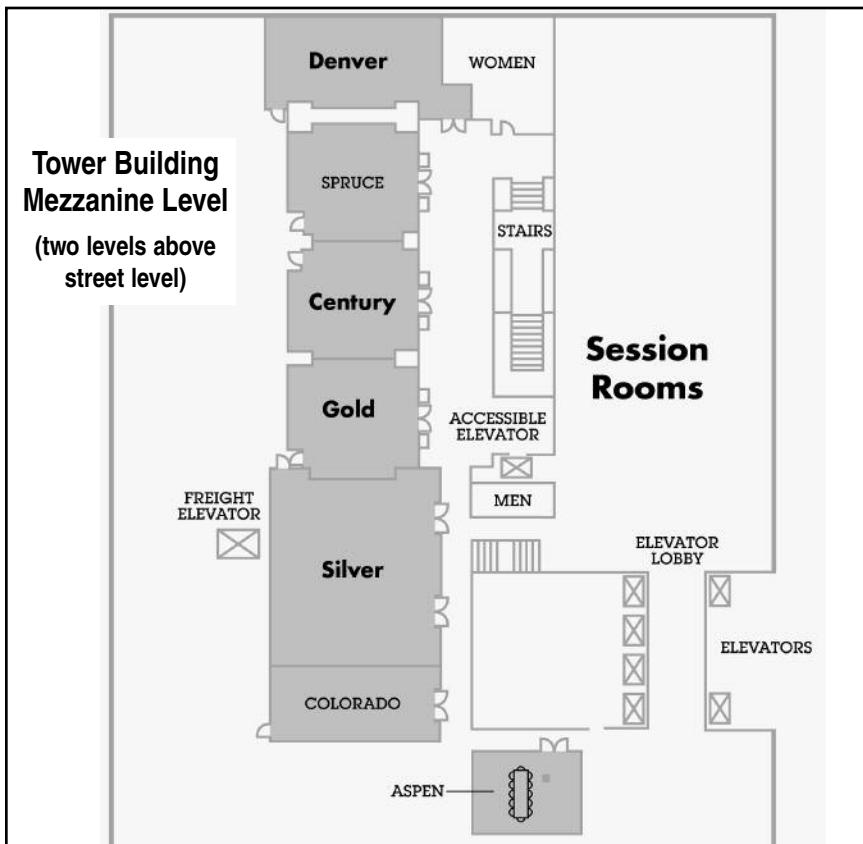
2012 Annual Meeting

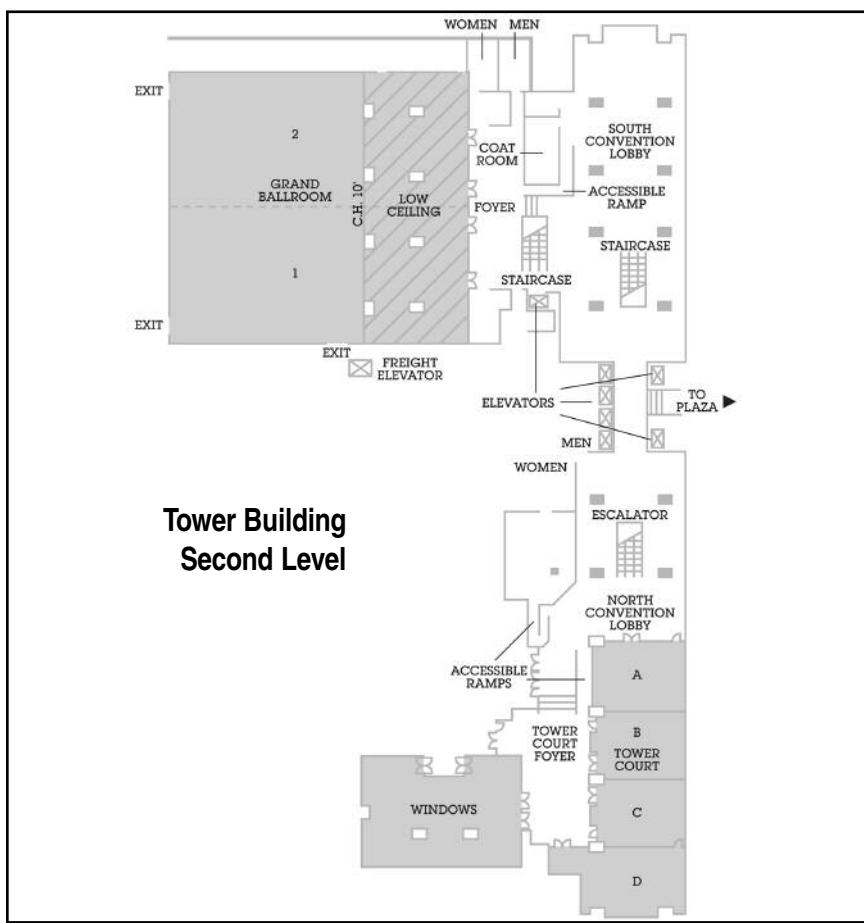
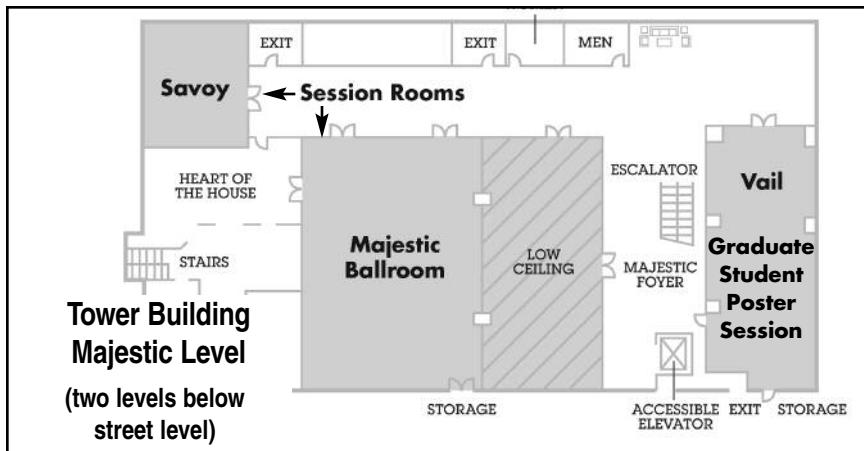
April 12 - 16

Vancouver, British Columbia, Canada

Denver, Colorado

Sheraton Denver Downtown Hotel





Denver, Colorado

PRE-CONFERENCE TRAINING SESSIONS

The 2010 NCME pre-conference training sessions will be held at the Sheraton Denver Downtown Hotel on Thursday, April 29 and Friday, April 30, 2010. 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.

Onsite registration for the pre-conference training sessions will be available at the Sheraton Denver Downtown Hotel for workshops that still have availability.

Thursday, April 29, 2010

Thursday, 8:00 a.m. – 12:00 noon, Century Room, AA

Quality Control in Test Development, Scoring and Reporting of Test Scores

Presenters: Avi Allalouf, National Institute for Testing and Evaluation, Ruth Fortus, National Institute for Testing and Evaluation

Quality control procedures are required in order to monitor the testing process and to keep mistakes to a minimum. Failure to establish and implement such procedures can have serious consequences: mistakes in test items can have an adverse impact on test reliability and validity; mistakes in scoring can prevent a qualified candidate from gaining acceptance to a particular program; and mistakes in score reporting can lead to legal action taken against the testing agency.

Professional practitioners should be aware of mistakes that could occur during the stages of test development, test scoring, test analysis and the reporting of scores. They should act in accordance with up-to-date standards and have a broad knowledge of quality control practices, as these are critical in the constant battle to prevent errors.

This training session deals with quality control procedures for the main stages of the testing process. In the session, mistakes that might occur at each stage will be presented, followed by examples and quality control procedures for avoiding, detecting or correcting these mistakes. Many of the quality control procedures discussed are also relevant for Internet-delivered and Internet-scored testing. The session will provide realworld examples, and participants will be given hands-on practice in detecting various types of errors. Approaches of various professions to the causes, prediction and reduction of human error will also be presented.

Intended Audience: Individuals involved in writing, administering and scoring tests.

Thursday, 8:00 a.m. – 12:00 noon, Silver Room, BB

Data Visualization Using R

Presenter: Damian Betebenner, National Center for the Improvement of Educational Assessment

The proliferation of data, in general, and education related data, in particular, over the last decade has been dramatic. Researchers and analysts across varied organizations now possess vast amounts of education related data ranging from assessment scores to finance data to GIS data. Turning data into useful informa-

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tion requires a transformation turning the raw number into an intelligible “story.” One of the most important ways of accomplishing this transformation is through data visualization. Creating data visualizations capable of communicating the rich stories embedded within the data often requires customization that goes beyond what is available in most point and click statistical graphics applications.

In this training session, participants will be introduced to data visualization using the R software package which is syntax based and geared toward the programmatic visualization of data. Graphics in R are easily made publication quality and are of the highest quality available. Programming one’s drawings (programmatic drawing) opens possibilities for data visualizations not possible with traditional data visualization tools. Through fine tuned customizations using R’s rich palette of drawing tools/packages and data manipulation features, the user is limited by only their imagination as to what is graphically rendered. An online gallery of R figures created by users with source code is available at:
<http://addictedito.free.fr/graphiques/>.

Intended Audience: Those interested in data visualization and tools capable of producing high quality custom visualizations.

Thursday, 8:00 a.m. – 12:00 noon, Denver Room, CC

Skills Diagnosis with Latent Variable Models: Theory and Practice, the Theoretical Component

Presenters: Jimmy de la Torre, Rutgers, The State University of New Jersey, Robert Henson, University of North Carolina at Greensboro, Jonathan Templin, University of Georgia

The primary aim of skills diagnosis is to develop and analyze tests in ways that reveal information with more diagnostic value, when compared with traditional approaches. In the methods for skills diagnosis that we consider mastery of particular skills or states of knowledge can be represented by a list of binary latent variables, indicating mastery of each of a finite set of skills under diagnosis. The main objective of skills diagnosis is to classify examinees according to this list of skills. This training session aims to provide both the theoretical underpinnings and practical experience necessary for participants to use skills diagnosis modeling in applied settings.

The theoretical component of the training session will provide a comprehensive overview of skills diagnosis modeling, and will include the following topics: what is the skills diagnosis modeling paradigm and how it differs from the traditional unidimensional framework, what steps are involved in attribute identification and validation, what is the Q-matrix and what role does it play in skills diagnosis modeling, what are some of the commonly used skills diagnosis models and how are they related to each other, how are model parameters estimated and how is model data fit evaluated, what procedures are involved in constructing an optimally diagnostic assessment, and how are skills diagnosis models compared and selected.

Intended Audience: Anyone interested in cognitive or skills diagnosis modeling who has some familiarity with item response theory or classical test theory.

Denver, Colorado

Thursday, 8:00 a.m. – 12:00 noon, Savoy Room, DD

Bayesian Analysis of Item Response Models: Theory and Methods

Presenters: Sun-Joo Cho, Vanderbilt University, Yanyan Sheng, Southern Illinois University Carbondale

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. Gibbs 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 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 measurement professionals.

Thursday, 8:00 a.m. – 5:00 p.m., Gold Room, EE

Beyond NDE: Understanding and Working with National Assessment of Educational Progress (NAEP) Restricted-Use Data

Presenters: Young Yee Kim, American Institutes for Research, Emmanuel Sikali, National Center for Education Statistics, Andrew Kolstad, National Center for Education Statistics, Linda Hamilton, American Institutes for Research, Alan Vanneman, American Institutes for Research, Burhan Ogut, American Institutes for Research

The National Assessment of Educational Progress (NAEP) is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas. Since NAEP results serve as a common metric for all states and selected urban districts, many researchers are interested in analyzing NAEP data. For this purpose, the NAEP Data Explorer (NDE), the publicly available online NAEP data analysis tool, has served as a convenient tool. With NDE, researchers can create statistical tables, charts, and maps. But there are limitations to the statistical analysis available through NDE. The purpose of this class is to provide researchers interested in more advanced NAEP data analysis with the practical knowledge and tools needed to work with NAEP restricted-use data. This class covers various topics related to restricted-use data analysis, from 'how to obtain a restricted-use data license' to 'writing NAEP data analysis results,' as well as NAEP complex sampling and psychometric design. Participants will

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learn necessary tools to work with NAEP restricted-use data. Participants need to bring their own laptop computer.

Intended Audience: Advanced graduate students and faculty members from colleges and universities and researchers, education practitioners, and policy analysts from state and local education agencies and professional associations.

Thursday, 8:00 a.m. – 5:00 p.m., Majestic Ballroom, FF

Test Equating Methods and Practices

Presenters: Michael Kolen, University of Iowa, Robert L. Brennan, University of Iowa

The need for equating arises whenever a testing program uses multiple forms of a test that are built to the same content and statistical specifications. Equating is used to adjust scores on test forms so that scores can be used interchangeably. The goals of the session are for attendees to be able to understand the principles of equating, to conduct equating, and to interpret the results of equating in reasonable ways. Equating will be contrasted with related linking processes, traditional and IRT equating methodology will be described, and practical issues will be discussed.

The focus is on developing a conceptual understanding of equating through numerical examples and discussion of practical issues. Recent developments in equating and linking performance assessments and computer based tests will be considered. The text for the session will be the co-directors' book, *Test Equating, Scaling, and Linking Methods and Practices* (Second Edition), a copy of which is included as part of the fee for the session. The session is designed for upper level graduate students, new PhD's, testing professionals with operational or oversight responsibility for equating, and others with interest in learning about equating methods and practices. Participants should have at least one graduate course in measurement and two graduate courses in statistics.

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

Thursday, 1:00 p.m. – 5:00 p.m., Century Room, GG

A Practitioner's Introduction to Linking and Equating

Presenter: Joseph Ryan, Arizona State University

A variety of issues related to accountability compliance and assessment validity are substantially supported or corrupted by how test forms are linked or equated to appropriate content and performance standards. The intended audience for the workshop includes educational policy makers and practitioners whose decisions and activities can be better informed through a more thorough understanding of linking and equating.

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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 and the limitations and resource demands of the designs;
- 3) The procedures applied to carry out equating;
- 4) Common issues and challenges faced by practitioners when equating is employed; and
- 5) Tips for what should be included in assessment RFP's, technical documentation, and linking/equating evaluative criteria.

This workshop begins with a brief overview of assessment, linking, and equating concepts. First, the critical distinction between linking scores and actually equating assessments is emphasized, and fundamental classical and IRT measurement terms and concepts are also briefly reviewed. Then, equating designs and procedures are presented and explained. Throughout the workshop, suggestions are provided for managing the linking and equating aspects of RFP's, contracted work, and technical documentation.

Workshop content is delivered through a detailed presentation that follows the basic scope and sequence of material presented in *A Practitioner's Introduction to Equating with Primers on Classical Test Theory and Item Response Theory* (Council of Chief State School Officers, June 2009). Hard copies of this publication and the companion PowerPoint slides will be provided to participants. Non-technical language, figures, and diagrams are used to illustrate major concepts and procedures and participants are encouraged to ask questions throughout the workshop.

Intended Audience: Measurement practitioners and policy makers at the district, state and university levels.

Thursday, 1:00 p.m. – 5:00 p.m., Denver Room, HH

Skills Diagnosis with Latent Variable Models: Theory and Practice, the Practical Component

Presenters: Jimmy de la Torre, Rutgers, The State University of New Jersey, Robert Henson, University of North Carolina at Greensboro, Jonathan Templin, University of Georgia

The primary aim of skills diagnosis is to develop and analyze tests in ways that reveal information with more diagnostic value, when compared with traditional approaches. In the methods for skills diagnosis that we consider mastery of particular skills or states of knowledge can be represented by a list of binary latent variables, indicating mastery of each of a finite set of skills under diagnosis. The main objective of skills diagnosis is to classify examinees according to this list of skills. This training session aims to provide both the theoretical underpinnings and practical experience necessary for participants to use skills diagnosis modeling in applied settings.

The practical component of the training session will provide participants a hands-on experience on the different aspects of skills diagnosis modeling through

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various exercises. Focusing on mixed fraction subtraction, participants will learn how to identify attributes, construct appropriate tasks given some attribute specifications, validate attributes and tasks, run software packages to estimates different skills diagnosis models, evaluate the appropriateness of the models and Q-matrix, and construct a test based on a specific set of constraints and given a pool of calibrated items.

Intended Audience: Anyone who has familiarity with the theory of cognitive or skills diagnosis modeling (i.e., previous or current participants of skills diagnosis training sessions).

Thursday, 1:00 p.m. – 5:00 p.m., Silver Room, II

Developing and Sustaining a Campus-Wide Commitment to Assessment of Student Learning in Higher Education

Presenters: Jeremy Penn, Oklahoma State University, Jessica L. Jonson, University of Nebraska-Lincoln

The purpose of this session is to provide faculty members, assessment coordinators, and administrators the philosophical foundations and tools needed to develop, implement, and sustain a campus-wide commitment to assessment in higher education.

Using Huba and Freed's (2000) book *Learner-Centered Assessment on College Campuses* as a guide, presenters will first examine the philosophical underpinnings of the modern assessment movement in higher education. Structures and processes for applying these concepts to a variety of different types of campuses will be described based on Peggy Maki's book (2004) *Assessing for Learning* (or 2010 version, if available). Finally, participants will explore measurement issues as relevant to assessment in higher education through examination of the *Standards for Educational and Psychological Testing* (1999).

- Participants will be given a copy of Peggy Maki's book (2004) *Assessing for Learning* (2010 version if available).
- Participants are encouraged to purchase copies of *Learner-Centered Assessment on College Campuses* (2000) and the *Standards for Educational and Psychological Testing* (1999).
- Participants are encouraged to bring current copies of their institution's assessment activities for discussion and sharing.

Intended Audience: This session targets all faculty members, assessment coordinators, and administrators interested in student outcomes assessment in higher education.

Thursday, 1:00 p.m. – 5:00 p.m., Savoy Room, JJ

State Assessment for Students with Disabilities: Getting it Right

Presenters: Susan Izard, Measured Progress, Sherry Rose-Bond, Columbus City Schools, Rebecca Walk, Measured Progress

The training session State Assessment for Students with Disabilities: Getting it Right is geared for practitioners involved in the support and guidance of special

Denver, Colorado

educators at the school, district, university, and state levels. This session will be a practical, interactive coverage of four major components of state assessment for students with disabilities: making the right decisions for participation in assessment, preparing students and teachers for assessment, participating in assessment, and applying assessment results in a meaningful way to inform instruction. Discussions and activities will include the four levels of state assessment in which students with disabilities participate: general assessment without accommodations, general assessment with accommodations, modified assessment and alternate assessment.

Intended Audience: Practitioners involved with supporting and guiding special educators at a school, district, university, or state level.

Friday, April 30, 2010

Friday, 8:00 a.m. – 12:00 noon, Century Room, KK

Tips for Graduate Students: Advice for Finishing School, Obtaining a Job, and Starting a Career

Presenters: Deborah Harris, ACT, Inc., Julio Sanclemente, CTB/McGraw-Hill, Andrew Ho, Harvard Graduate School of Education, Brenda Jacobs, CTB/McGraw-Hill

The training session has three main components:

- (1) Finishing up the PhD including finding a dissertation topic and how to maximize experiences while still a student (classes, internships, work experiences, networking, professional associations);
- (2) Obtaining a job including how to locate where jobs are available (universities, testing companies, school districts, state departments, professional/licensing organizations, etc.), how to apply for jobs (including targeting cover letters, references, and resumes) and the interview process; and
- (3) Beginning a career including job politics, adjusting to the environment, career path, publishing, professional service, being a mentor/finding a mentor, balancing work and life, and what if I hate my job.

Intended Audience: Graduate students in the measurement field.

Friday, 8:00 a.m. – 12:00 noon, Gold Room, LL

A Brief Introduction to IRT Parameter Estimation Techniques

Presenter: Seock-Ho Kim, University of Georgia

Theory and methods for the educational and psychological measurement of latent variables using item response theory methodology are discussed. The one-parameter logistic or Rasch, the two-parameter logistic, and the Birnbaum's three-parameter models for dichotomously scored item response data will be reviewed from a theoretical viewpoint with an emphasis on the various estimation techniques of the model parameters. Applications of these models to practical measurement situations will be studied using item response theory computer

NCME • 2010 Annual Meeting & Training Sessions

programs. Topics of the course consist of item calibration, scoring, information, and some applications to instrument construction. Models for polytomously scored items are briefly discussed.

Prerequisites include knowledge equivalent to one graduate course in theoretical educational measurement and familiarity with differential and integral calculus treated in undergraduate mathematics courses. A book coauthored by the director with Frank B. Baker titled *Item Response Theory: Parameter Estimation Techniques* will be distributed to participants and used as a principle reference in the training session. Computer programs for performing item response theory analyses will be discussed and illustrated. Participants are encouraged to bring their own laptop computers.

Intended Audience: Upper-level graduate students and new measurement professionals.

Friday, 8:00 a.m. – 5:00 p.m., Silver Room, MM

Assessing New Constructs Using New Measures

Presenters: Patrick C. Kyllonen, Educational Testing Service, Richard D. Roberts, Educational Testing Service

Personal attributes or non-cognitive factors are increasingly recognized as important determinants and reflections of success in education from K-12 through graduate and professional school. In this training session we will review the process of developing and evaluating new assessments of new constructs.

We will cover the following topics:

- New construct frameworks, models, and theories (personality, attitudes, values, beliefs, and other constructs)
- Developing assessments from construct definitions and item pools, including the international personality item pool (IPIP)
- Various methods for assessing new constructs (self-assessments, others' ratings, situational judgment tests, conditional reasoning, implicit association tests)
- Item writing do's and dont's
- The problem of taking on self-assessments (preventing, detecting and correcting for it)
- Delivery platforms (web and paper-and-pencil)
- Exploratory factor analysis and other data structure exploration methods
- Confirmatory factor analysis
- Advanced methods (IRT, latent class models, unfolding models)
- Special topics (rating scale issues [optimal number of points; presence of neutral point, "do not know"], reverse key items)
- Indirect measures (e.g., from school records)
- Example new constructs assessments (self-help for community college; institutional reporting for K-12; high stakes for graduate school)

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

Intended Audience: Researchers and practitioners interested in non-cognitive assessment.

Friday, 8:00 a.m. – 5:00 p.m., Denver Room, NN

Score Drift: Why District and State Achievement Results Unexpectedly Bounce Up and Down from Year to Year

Presenters: Douglas Rindone, Council of Chief State School Officers, Gary Phillips, American Institutes for Research, Gilbert Andrada, Connecticut State Department of Education, Dianne Henderson-Montero, Educational Testing Service

Every year many School Districts and State Departments of Education are confronted with reporting annual results that are unexpectedly high or low. When they are high they take credit for success and when they are low they look to find who is at fault. When the results spike up or down the department usually hires consultants to try to find out what happened. Often, the results of the evaluation are inconclusive and it is never really understood what went wrong. In this training session it will be argued that these unexpected results are caused by school districts and state departments underestimating the error in their annual data. This underestimation of error occurs when reporting mean results as well as when reporting Adequate Yearly Progress (AYP). The net effect of this is misinterpreting random fluctuations as statistically significant increases and decreases in achievement. The two main sources of error that are almost always at play are related to design effects and equating error. The training session will show how ignoring these sources of error can give a completely misleading picture of district and state educational progress. The training session will suggest ways to minimize these unexpected bouncing up and down of annual results.

Intended Audience: School district and state department of education testing staff, technical staff from testing vendors, and professors of tests and measurement at the university level.

Friday, 8:00 a.m. – 5:00 p.m., Majestic Ballroom, OO

Moving from Art to Science: An Item-Writing Course for Test Developers, Researchers and Teachers

Presenters: Michael C. Rodriguez, University of Minnesota, Thomas Haladyna, Measurement Consultant, Anthony Albano, University of Minnesota

This course will introduce/review item-writing guidelines and principles of universal design, including lecture format, and individual, small and whole-group work. Participants will review and suggest revisions to a variety of sample items. Participants will be expected to generate and critique their own items during the session. Challenges and quality criteria in developing and selecting items to measure various constructs will be addressed. Principles of item accessibility for students with disabilities and English language learners will also be addressed. Given recent efforts to create modified assessments for students with disabilities

NCME • 2010 Annual Meeting & Training Sessions

(the 2% group), principles of item modification for this population will be addressed. The focus will be on multiple choice items, but principles related to constructed-response and essay items will be included. If time permits, we will extend some of the core item writing principles to other areas, including survey research.

Intended Audience: Item writers, teachers, assessment developers/researchers.

Friday, 8:00 a.m. – 5:00 p.m., Savoy Room, PP

Bayesian Networks in Educational Assessment

Presenters: Duanli Yan, Education Testing Service, Russell G. Almond, Educational Testing Service, Robert J. Mislevy, University of Maryland, David M. Williamson, Educational Testing Service

This course will provide the background information on Bayesian networks, Graphical Models and related inference and representation methods and provide examples of their use in educational assessment. Although the course will review the Evidence Centered Design framework for representing measurement models in educational assessments using graphs, the primary goal is to review the work done in other communities for psychometricians and psychologists. Then, after a brief overview of the most commonly used Bayesian network tools, it will provide a well-received interactive hands-on session on using Bayesian network tool on small examples for Bayesian inference, manipulating graphical models and applications in educational assessment. It will also review the existing body of literature on graphical models from other disciplines (in particular, the Uncertainty in Artificial Intelligence literature).

Intended Audience: People interested in educational measurement.

Friday, 1:00 p.m. – 5:00 p.m., Century Room, QQ

Comprehensive Approaches to Validate Construct Invariance and Test Comparability for Federal and School Accountability Reporting Purposes

Presenters: Huynh Huynh, University of South Carolina, Do Hong Kim, University of North Carolina at Charlotte

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 under measurement 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 and with emphasis on the correct response, IRT (including Rasch) and DIF (MH) can be used. Also at the item level but with emphasis on type of errors, log-linear models might be appropriate. At the subtest level, of course, 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

Denver, Colorado

a demonstration of these approaches. Data from a large-scale state assessment program are be used as a case study. Participants are expected to be familiar with standard software such as SAS, M-Plus, LISREL, WINSTEPS, and PARSCALE.

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

Friday, 1:00 p.m. – 5:00 p.m., Gold Room, RR

Impacting Learning Through the Use of Formative Assessment

*Presenters: Julia Payne-Lewis, Measured Progress, Stuart R. Kahl,
Measured Progress*

During this half-day research-based workshop you will:

- View formative assessment within the larger framework of a comprehensive assessment system.
- Take a look at the research about formative assessment from a practical vantage point.
- Learn to transform theory into real-world practice.
- Work with professionals who will model formative assessment in order to strengthen your formative assessment skills.
- Augment your skills in transforming common classroom practices into powerful tools for maximizing student achievement.
- Investigate the relationship between the standards and formative assessment.
- Prepare to take these skills and ideas back to schools and districts, in order to further discussions about how to put them into practice, and share them with colleagues.

Intended Audience: Teachers and administrators.

NCME • 2010 Annual Meeting & Training Sessions

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

NCME Board of Directors Meeting

Members of NCME are invited to attend as observers.

Denver, Colorado

Saturday, 8:15 a.m. – 10:15 a.m., Denver Room, A1

The Influence and Impact of Technology on Educational Measurement (Graduate Student Issues Committee) – Invited Symposium

Organizer

Mary Roduta Roberts, University of Alberta

Moderator

Kimberly Swygert, National Board of Medical Examiners

Presenters

Lisa Harris, Winthrop University

Richard Luecht, The University of North Carolina at Greensboro

Kathleen Scalise, University of Oregon

*Joe Willhoft, Office of the Superintendent of Public Instruction,
State of Washington*

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 8:15 a.m. – 10:15 a.m., Century Room, A2

Bayesian Modeling Approaches – Paper Session

Moderator

Richard Sudweeks, Brigham Young University

Presenters

Chi-Ming Su, National Chung Cheng University, Wen-Chung Wang, Hong Kong Institute of Education

Item Response Models with Hierarchical Multidimensionality

Xiaowen Zhu, Data Recognition Corporation, Clement Stone, University of Pittsburgh

Bayesian Comparison of Alternative Graded Response (GR) Models for Performance Assessments

Na Yang, University of South Carolina, Brian Habing, University of South Carolina

Bayesian MML for Estimating Mixed Unfolding/Monotone Item Exams

Leslie Hendrix, University of South Carolina, Brian Habing, University of South Carolina

Using PPMC Methodology without MCMC to Assess Model Fit in IRT

Junhui Liu, University of Maryland

Applications of Skewed Item Response Models in a Science Assessment Data Using Bayesian Estimation

Discussant

Sandip Sinharay, Educational Testing Service

Denver, Colorado

Saturday, 8:15 a.m. – 10:15 a.m., Gold Room, A3

Technical Issues in Benchmark Assessment – Coordinated Session

Organizer/Moderator

Daniel Lewis, CTB/McGraw-Hill

Presenters

Lou DiBello, University of Illinois at Chicago, William Stout, University of Illinois at Chicago

An Overview of Technical Issues in Benchmark Assessment

Keith Boughton, CTB/McGraw-Hill, Furong Gao, CTB/McGraw-Hill, Daniel Lewis, CTB/McGraw-Hill, Dong-In Kim, CTB/McGraw-Hill

Technical Issues in the Vertical Scaling of Benchmark Assessments

Dong-In Kim, CTB/McGraw-Hill, Furong Gao, CTB/McGraw-Hill, Daniel Lewis, CTB/McGraw-Hill, Keith Boughton, CTB/McGraw-Hill

A Comparison of Prediction Methods for Benchmark Assessments

Matthew Grady, University of Texas at Austin, Daniel Lewis, CTB/McGraw-Hill, Furong Gao, CTB/McGraw-Hill

The Effect of Sample Size on Student Growth Percentiles

Discussants

Jonathan Dings, Boulder Valley School District

Liru Zhang, Delaware Department of Education

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 8:15 a.m. – 10:15 a.m., Silver Room, A4

Large Scale Assessments in China: Challenges and Practices – Invited Symposium

Organizers/Moderators

*Hua-Hua Chang, University of Illinois
Ying Cheng, University of Notre Dame*

Presenters

Xin-Yong Lei, Shanghai Municipal Educational Examinations Authority, Qun Zhou, Shanghai Municipal Educational Examinations Authority

An Anchoring-Test-Developers Based Method for Estimating Item Difficulty Parameters for Geographic Tests of the University Entrance Examination in Shanghai

Hong-Yun Liu, Beijing Normal University, Xiao-Feng You, Foreign Language Teaching and Research Press, Wen-Yi Wang, Jiangxi Normal University, Shu-Liang Ding, Jiangxi Normal University, Hua-Hua Chang, University of Illinois
Large-Scale Applications of Cognitive Diagnostic Computerized Adaptive Testing in China

Kit-Tai Hau, The Chinese University of Hong Kong

High-Stake Examinations in Hong Kong: Issues and Practices

Shu-Liang Ding, Jiangxi Normal University, Qing Chen, Jiangxi Normal University, Long-Yin Zhu, Gannan Normal College, Zhi-Yong Xu, Tianjin Educational Examinations Authority

A Three-Parameter Graded Response Model and Its Applications in Large Scale Assessments in China

Bo Wang, The College Board

College Entrance Examinations in China: History, System, Culture and People

Discussant

Terry A. Ackerman, University of North Carolina at Greensboro

Denver, Colorado

Saturday, 8:15 a.m. – 10:15 a.m., Savoy Room, A5

A Partnership Waiting to Happen? SEA Measurement Challenges and NCME Expertise – Invited Symposium

Moderator

Robert (Bob) M. Olsen, Council of Chief School Officers

Presenters

Joe Willhoft, Washington Superintendent of Public Instruction Office

Pat Roschewski, Nebraska Department of Education

Joseph Martineau, Michigan Department of Education

Wendy Picket, Delaware Department of Education

Discussants

Douglas Rindone, Council of Chief State School Officers

Duncan MacQuarrie, Council of Chief State School Officers

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 8:15 a.m. – 10:15 a.m., Majestic Ballroom, A6

Exhibition on Testing and Measurement – Coordinated Session

Organizers

Avi Allalouf, National Institute for Testing and Evaluation

Diana Alderoqui Pinus, Bloomfield Science Museum Jerusalem

Moderators

Avi Allalouf, National Institute for Testing and Evaluation

Yoav Cohen, National Institute for Testing and Evaluation

Randy Bennett, Educational Testing Service

Presenters

Yoav Cohen, National Institute for Testing and Evaluation

Participant 1

Randy Bennett, Educational Testing Service

Participant 2

Henry Braun, Boston College

Participant 3

Ronald Hambleton, University of Massachusetts

Participant 4

Thanos Patelis, The College Board

Participant 5

Wim van der Linden, CTB/McGraw-Hill

Participant 6

Denver, Colorado

Saturday, 10:35 a.m. – 12:05 p.m., Denver Room, B1

Performance or Alternate Assessment – Paper Session

Moderator

Chad Buckendahl, Alpine Testing Solutions

Presenters

Ou Lydia Liu, Educational Testing Service, Hee-Sun Lee, Tufts University, Marcia Linn, University of California–Berkeley

A Comparison among Multiple-Choice, Constructed-Response and Explanation Multiple-Choice Items

Melinda Taylor, North Carolina Department of Public Instruction, Dena Pastor, James Madison University

An Application of Generalizability Theory to Evaluate the Technical Quality of an Alternate Assessment

Stacy Sculthorp, Capella University, Jeff Grann, Capella University

Leveraging the Assessment Triangle to Measure Learning Outcomes in Higher Education

Meagan Karvonen, Western Carolina University, Patricia Almond, University of Oregon, Shawnee Wakeman, University of North Carolina at Charlotte, Sue Bechard, Measured Progress

A Synthesis of Ten Alignment Studies of Alternate Assessment Systems Based on Alternate Achievement Standards (1%): Implications for Assessment System Design and Policy

Discussant

Ellen Forte, edCount, LLC

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 10:35 a.m. – 12:05 p.m., Century Room, B2

An Application of Assessment Engineering to Multidimensional Diagnostic Testing in an Educational Setting – Invited Symposium

Organizer/Moderator

Richard Luecht, The University of North Carolina at Greensboro

Presenters

Mark Gierl, University of Alberta, Jacqueline Leighton, University of Alberta
Developing Cognitive Models and Constructed Maps to Promote Assessment Engineering

Richard Luecht, University of North Carolina at Greensboro, Andrew Dallas, University of North Carolina at Greensboro, Teneka Steed, University of North Carolina at Greensboro

Developing Assessment Engineering Task Models: A New Way to Develop Test Specifications

Hollis Lai, University of Alberta, Mark Gierl, University of Alberta
Using Item Templates and Automated Item Generation Principles for Assessment Engineering

Zhan Shu, University of North Carolina at Greensboro, Matthew Burke, University of North Carolina at Greensboro, Richard Luecht, University of North Carolina at Greensboro

Some Quality Control Results of Using a Hierarchical Bayesian Calibration System for Assessment Engineering Task Models, Templates, and Items

Discussants

*Steve Ferrara, CTB/McGraw-Hill
Kristen Huff, The College Board*

Denver, Colorado

Saturday, 10:35 a.m. – 12:05 p.m., Gold Room, B3

Bayesian Estimation in Measurement – Paper Session

Moderator

Jodi Casabianca, Fordham University

Presenters

Sun-Joo Cho, Vanderbilt University

A Hierarchical Bayesian Analysis of 2-Parameter IRT Model: Effect of Prior Specification on Item Discrimination Parameters

Su Baldwin, National Board of Medical Examiners, Peter Baldwin, National Board of Medical Examiners, Lisa Keller, University of Massachusetts

The Impact of Sample Size on Coverage Properties of Posterior Distributions When using Fully Bayesian IRT Models

Matthew Burke, University of North Carolina at Greensboro, Zhan Shu, University of North Carolina at Greensboro

An Investigation of the Usefulness of the Cumulative Sum Procedure to Assess Convergence in Posterior Distributions Attained Using MCMC Estimation

Tsz Cheung Lam, Rutgers, The State University of New Jersey, Yuan Hong, Rutgers, The State University of New Jersey, Jimmy de la Torre, Rutgers, The State University of New Jersey

Ancillary Variables and Multidimensional Scoring of Polytomous Responses

Discussant

Seock-Ho Kim, The University of Georgia

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 10:35 a.m. – 12:05 p.m., Silver Room, B4

Updating the ACT/SAT Concordances – Coordinated Session

Organizer

Tim Moses, Educational Testing Service

Moderator

Neil Dorans, Educational Testing Service

Presenters

Neil Dorans, Educational Testing Service, Nancy Petersen, ACT, Inc.

Distinguishing Concordances from Equatings

Tim Moses, Educational Testing Service, Jill Crouse, ACT, Inc., Jim Sconing, ACT, Inc.

Selection Decisions for the Sample Data used in the ACT-SAT Concordances

Neil Dorans, Educational Testing Service, Jim Sconing, ACT, Inc., Jill Crouse, ACT, Inc.

Selection Decisions for the ACT and SAT Scores used to Produce the ACT-SAT Concordances

Jinghua Liu, Educational Testing Service, Neil Dorans, Educational Testing Service, Tim Moses, Educational Testing Service

Evaluating the Subpopulation Sensitivity of the ACT-SAT Concordances

Discussants

Michael Kolen, The University of Iowa

Mary Pommerich, Defense Manpower Data Center

Denver, Colorado

Saturday, 10:35 a.m. – 12:05 p.m., Savoy Room, B5

Multidimensionality in Computer Adaptive Testing – Paper Session

Moderator

Joseph Betts, Renaissance Learning

Presenters

Chun Wang, University of Illinois, Hua-Hua Chang, University of Illinois
Restrictive Stochastic Item Selection Methods in Cognitive Diagnostic Computerized Adaptive Testing

Hung-Yu Huang, Hsuan Chuang University, Po-Hsi Chen, National Taiwan Normal University, Wen-Chung Wang, The Hong Kong Institute of Education
Computerized Adaptive Testing under Item Response Model with Hierarchical Latent Traits

Kevin Kalinowski, University of North Texas, Robin Henson, University of North Texas

Stratified Item Selection and Exposure Control in Unidimensional Adaptive Testing in the Presence of Two-Dimensional Data

Ru Lu, University of Maryland–College Park, Jiao Hong, University of Maryland–College Park

Impacts of Local Item Dependence of Testlet Items with the Multistage Tests

Discussant

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

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 10:35 a.m. – 12:05 p.m., Majestic Ballroom, B6

Influences on Linking and Equating – Paper Session

Moderator

Terran Brown, Educational Testing Service

Presenters

Yanming Jiang, Educational Testing Service, Shudong Wang, Northwest Evaluation Association

A Longitudinal Study of the Effects of Cohorts' Variance and Covariance Structures on Vertical Scales

Stephen Murphy, Pearson, Ian Little, Pearson, Robert Kirkpatrick, Pearson, Meichu Fan, Pearson, Chow-Hong Lin, Pearson

The Impact of Different Anchor Stability Methods on Equating Results and Student Performance

Seohong Pak, Yonsei University, Guemin Lee, Yonsei University

An Investigation of the Effects of Sample Size, Anchor Test Length, and Group Equivalency on Kernel and Traditional Equating Methods under NEAT Design

Kyong Hee Chon, Western Kentucky University, Won-Chan Lee, University of Iowa

The Effect of Model-Data Misfit on IRT Equating for Mixed Format Tests

Discussant

Deborah Harris, ACT, Inc.

Denver, Colorado

Saturday, 12:25 p.m. – 1:55 p.m., Denver Room, C1

Tests and Time – Coordinated Session

Organizer/Moderator

Neal Kingston, University of Kansas

Presenters

Pui Chi Chiu, University of Kansas, Patrick Irwin, University of Kansas, Neal Kingston, University of Kansas

How Much Time does a Test-Taker Take if a Test-Taker does Take Time?

Amanda Wolkowitz, Assessment Technologies Institute, Jonathan Templin, University of Georgia, Neal Kingston, University of Kansas

An Analysis of the Time and Day of the Week that Students Perform Best on Assessments

Stephen Wise, Northwest Evaluation Association, G. Kingsbury, Northwest Evaluation Association, Carl Hauser, Northwest Evaluation Association, Lingling Ma, Northwest Evaluation Association

An Investigation of the Relationship between Time of Testing and Test-Taking Effort

David Scrams, Alpine Testing Solutions, Russell W. Smith, Alpine Testing Solutions

A Practical Approach to Balancing Time Demands across Test Forms

Discussant

Peter Pashley, Law School Admissions Council

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 12:25 p.m. – 1:55 p.m., Century Room, C2

Issues in Equating – Paper Session

Moderator

Michael Jodoin, National Board of Medical Examiners

Presenters

Chunyan Liu, University of Iowa, Michael Kolen, University of Iowa
Standard Error of IRT Equating: Parametric versus Nonparametric

Youngsuk Suh, University of Texas at Austin, Daniel Bolt, University of Wisconsin–Madison

Using a Nested Logit Model to Improve 2PL Linking in a Common-Item Design

Robert Smith, Educational Testing Service, Charles Lewis, Fordham University
Finding an Equating Function to Achieve (Approximate) First Order Equity

Peter Baldwin, National Board of Medical Examiners

Developing a Common Metric in Item Response Theory when Parameter Posterior Distributions are Known

Discussant

Ye Tong, Pearson Educational Measurement

Denver, Colorado

Saturday, 12:25 p.m. – 1:55 p.m., Gold Room, C3

Research Methodologies and Theoretical Foundations to Support Alternate Assessment Based on Modified Achievement Standards (AA-MAS) – Coordinated Session

Organizer/Moderator

Sue Bechard, Measured Progress

Presenters

Caroline Parker, Education Development Center

Design Features for Enhanced Reading Comprehension Assessment: Evidence from Cognitive Interviews

Joanna Gorin, Arizona State University

Enhanced Assessment Item Development: An Item Difficulty Modeling Approach

Wendy McLaughlin Stoica, Ohio Department of Education

Recommendations for AA-MAS Item Modifications: Utilizing Information from Focus Groups and Surveys with Special Educators

Patricia McDivitt, Data Recognition Corporation

Determining AA-MAS Test Enhancements: Qualitative Reviews by Content Experts of Existing Grade-Level Assessments, Test Items, and Student Performance

Sue Bechard, Measured Progress

Toward the Development of a Theoretical Foundation for Alternate Assessment Based on Modified Achievement Standards

Discussant

Stanley Rabinowitz, WestEd

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 12:25 p.m. – 1:55 p.m., Silver Room, C4

Threats to Validity – Paper Session

Moderator

Jeremy Penn, Oklahoma State University

Presenters

Hyewon Chung, John Jay College/CUNY, Jiseon Kim, University of Texas–Austin
The Effects of Non-Normality on Differential Item Functioning Using Multi-Group Confirmatory Factor Analysis

Anthony Fina, The University of Iowa, Pedro Sánchez, Universidad Autónoma de Yucatán, Liz Hollingworth, The University of Iowa

Adaptation of the WISC-4 for Use in Mexico: Cultural Considerations

Maria Martinello, Educational Testing Service, Irene Kostin, Educational Testing Service

Comparing the Impact of Language Load on Differential Item Functioning in Mathematics Assessments for English Language Learners (ELLs) and Former ELLs

Jennifer Randall, University of Massachusetts, Leah Kaira, University of Massachusetts, Stephen G. Sireci, University of Massachusetts–Amherst

Evaluating the Comparability of Paper and Computer-Based Tests: A Confirmatory Factor Analysis

Discussant

Patrick Kyllonen, Educational Testing Service

Denver, Colorado

Saturday, 12:25 p.m. – 1:55 p.m., Savoy Room, C5

Item Response Models and Estimation – Paper Session

Moderator

Stephen Murphy, Pearson

Presenters

Younyoung Choi, University of Maryland, Andre Rupp, University of Maryland, Matthew Gushta, University of Maryland

An Investigation of a Novel Analytic Method for Learning Progressions in Epistemic Games

Jian Tao, Northeast Normal University, Ning-Zhong Shi, Northeast Normal University, Hua-Hua Chang, University of Illinois

Optimal Item-Weighted WLE Methods for Ability Estimation

Ting-Wei Chiu, Rutgers, The State University of New Jersey, Gregory Camilli, Rutgers, The State University of New Jersey

A New IRT 3PL-Based Correction for Guessing Method

Yanyan Sheng, Southern Illinois University

An Empirical Study of Gibbs Sampling for 4PNO IRT Models

Discussant

Chingwei Shin, Pearson Educational Measurement

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 12:25 p.m. – 1:55 p.m., Majestic Ballroom, C6

21st Century Assessment Design: Four Perspectives – Coordinated Session

Organizers

Kristen Huff, The College Board

Jim Pellegrino, University of Illinois at Chicago

Moderator

Kristen Huff, The College Board

Presenters

Jim Pellegrino, University of Illinois at Chicago, Kristen Huff, The College Board
Using Evidence-Centered Assessment Design to Bridge the Gap between Summative Assessments and Classroom Practice

Kathleen Sheehan, Educational Testing Service

The CBAL Reading Assessment: An Approach for Balancing Measurement and Learning Goals

Caroline Wylie, Educational Testing Service

Designing Quality Formative Assessment

Geneva Haertel, SRI International

An Application of ECD in Large-Scale State Science Assessment

Discussants

Robert Brennan, University of Iowa

Robert Mislevy, University of Maryland

Denver, Colorado

Saturday, 2:15 p.m. – 3:45 p.m., Denver Room, D1

Licensure and Certification – Paper Session

Moderator

Julie Miles, Pearson

Presenters

Neil Dorans, Educational Testing Service, Longjuan Liang, Educational Testing Service, Gautam Puhan, Educational Testing Service

Aligning Scales of Certification Tests

Barbara Badgett, Alpine Testing Solutions, Alice Corkill, University of Nevada–Las Vegas

Toward The Development of a Model to Estimate the Readability of Credentialing-Examination Materials

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

Determining Acceptable Reductions in Test Form Length for a National Licensure Examination

Chad Buckendahl, Alpine Testing Solutions, Susan Davis, Alpine Testing Solutions

Evaluating the Appropriateness and use of Domain Critical Errors

Discussant

Gregory Cizek, University of North Carolina at Chapel Hill

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 2:15 p.m. – 3:45 p.m., Century Room, D2

Mixture IRT – Paper Session

Moderator

Brett Foley, Buros Center for Testing/University of Nebraska-Lincoln

Presenters

Insu Paek, Educational Testing Service, Cho Sun-Joo, Vanderbilt University, Allan Cohen, University of Georgia

A Comment on Scale Linking in Mixture IRT Modeling

Youn-Jeng Choi, University of Georgia, Natalia Alexeev, University of Georgia, Allan Cohen, University of Georgia

A Mixture 3PL Model Analysis of DIF on the TIMSS 2007 Mathematics Test

Yoon Soo Park, Teachers College–Columbia University, Young-Sun Lee, Teachers College–Columbia University

Mixture IRT Model Comparison Using Bayesian Methods: An Empirical Analysis via Cognitive Diagnosis Interview Data

Abigail Lau, James Madison University, Dena Pastor, James Madison University
Application of a Mixture IRT Model to Improve Parameter Estimates when Some Examinees are Amotivated

Discussant

Werner Wothke, American Institutes for Research

Denver, Colorado

Saturday, 2:15 p.m. – 3:45 p.m., Gold Room, D3

Issues with DIF – Paper Session

Moderator

Randall Penfield, University of Miami

Presenters

Kevin Joldersma, Measurement Incorporated, Daniel Bowen, Measurement Incorporated

Application of Propensity Models in DIF Studies to Compensate for Unequal Ability Distributions

Cheng-Te Chen, National Chung Cheng University, Wen-Chung Wang, The Hong Kong Institute of Education

Assessment of Differential Rater Functioning

Yoonsun Lee, Seoul Women's University, Catherine Taylor, University of Washington

Impact of DIF Purification Procedures on Measured Constructs

Kadriye Ercikan, University of British Columbia

Application of Think Aloud Protocols for Identifying and Examining Sources of Differential Item Functioning

Discussant

Ida Lawrence, Educational Testing Service

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 2:15 p.m. – 3:45 p.m., Silver Room, D4

Ensuring Equitable Representation of English Language Learners in NAEP: Reactions to the Technical Advisory Panel Report to NAGB on Uniform National Rules for Including and Accommodating ELLs in NAEP (Diversity Issues in Testing Committee) – Invited Symposium

Organizer/Moderator

Charlene Rivera, The George Washington University Center for Equity and Excellence in Education

Presenters

Cornelia Orr, National Assessment Governing Board

Sharif Shakrani, Michigan State University

Jo O'Brien, Colorado Department of Education

Deb V.H. Sigman, California Department of Education

Katherine A. Viator, Massachusetts Department of Elementary and Secondary Education

Discussant

Carlos Martinez, US Department of Education

Denver, Colorado

Saturday, 2:15 p.m. – 3:45 p.m., Savoy Room, D5

Calibration in IRT – Paper Session

Moderator

Eugene Gonzalez, Educational Testing Service

Presenters

Pui-Wa Lei, The Pennsylvania State University, Yu Zhao, The Pennsylvania State University

Effects of Vertical Scaling Methods on Linear Growth Estimation

Christine DeMars, James Madison University

A Comparison of Limited-Information and Full-Information Methods for Estimating IRT Parameters for Non-Normal Populations

Jodi Casabianca, Fordham University, Xueli Xu, Educational Testing Service, Yue Jia, Educational Testing Service, Charles Lewis, Fordham University/Educational Testing Service

Item Parameter Recovery in Marginal Maximum Likelihood Estimation with Non-Normal Ability

Nina Deng, University of Massachusetts–Amherst

A Simulation Study on Sequential Item Calibration in Multi-Stage Testing

Discussant

Yasuo Miyazaki, Virginia Polytechnic Institute and State University

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 2:15 p.m. – 3:45 p.m., Majestic Ballroom, D6

Differential Item Functioning – Paper Session

Moderator

Lilly Zhang, Educational Testing Service

Presenters

Hequn Wang, Michigan State University

Creating a DIF Index — A Combination of DIF Measure, DIF Direction, and DIF Impact on People

Huynh Huynh, University of South Carolina, Kim Do Hong, University of North Carolina–Charlotte

Ethnicity Differences in Responses to Paper-and-Pencil and Computer-Based Testing: A Content Analysis for a Literacy Test

Minhee Seo, University of North Carolina at Greensboro, Yiming Jin, University of Illinois at Urbana-Champaign, Chia-Yi Chiu, Rutgers, The State University of New Jersey

Impact of DIF on Ability Estimation in CAT

Mary Roduta Roberts, University of Alberta, Andrea Gotzmann, University of Alberta, Andrew Lejeune, University of Alberta

A Comparison of Type I Error and Power Rates for the SIBTEST and Mantel-Haenszel Procedures with Large Group Differences and Different Standard Deviations

Discussant

Rebecca Zwick, Educational Testing Service and University of California–Santa Barbara

Denver, Colorado

Saturday, 4:05 p.m. – 6:05 p.m., Denver Room, E1

Update on the Revisions to the Standards for Educational and Psychological Testing – Invited Symposium

Organizer

Barbara S. Plake, University of Nebraska

Moderator

Michael Kolen, University of Iowa

Presenters

Joan Herman, UCLA Center for Research on Evaluation, Standards, and Student Testing
Access and Fairness

Laura Hamilton, RAND Corporation
Accountability and Educational Policy

Denny Way, Pearson
Technology

Lauress Wise, Human Resources Research Organization
Workplace and Certification

Barbara S. Plake, University of Nebraska
Format and Publication Options

Discussant

Steve Ferrara, CTB/McGraw-Hill

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 4:05 p.m. – 6:05 p.m., Century Room, E2

Measurement of Growth – Paper Session

Moderator

Shu Jing Yen, Institute of Education Sciences

Presenters

Joseph Betts, Renaissance Learning

Measuring Academic Growth with Growth Norms: A Method for Response-to-Intervention Models

Chueh-An Hsieh, Michigan State University

A Unified Model for the Analysis of Change: Using a Multivariate Multilevel Polytomous Item Response Theory Model to Study the Parallel Process of Change

Katherine Furgol, University of Iowa

Growth on an Aggregate Level: Properties and Policy Implications of Competing Group Growth Metrics

Linette McJunkin, University of Kansas, John Poggio, University of Kansas, Douglas Glasnapp, University of Kansas

Monitoring Growth with Vertical Scaling or Vertically Moderated Standards Setting: Differentiating the Features, Applications, and Objectives

Seon-Hi Shin, California State University–Long Beach

Robustness of Multilevel Models against Nonnormality

Discussant

Damian Beteabenner, Center For Assessment

Denver, Colorado

Saturday, 4:05 p.m. – 6:05 p.m., Gold Room, E3

Diagnostic Models – Paper Session

Moderator

Hye-Jeong Choi, University of Georgia

Presenters

Xinrui Wang, University of North Carolina at Greensboro, Zhan Shu, University of North Carolina at Greensboro, Devdass Sunnasssee, University of North Carolina at Greensboro

Incorporating the DINO Model in the Artificial Neural Network: An Alternative of Small Sample Diagnostic Classification

Huiyun Tseng, Teachers College–Columbia University, Matthew Johnson, Teachers College–Columbia University, James Corter, Teachers College–Columbia University

A Linear Compensatory Counterpart and Generalization of the DINA Model

Alan Huebner, ACT, Inc.

Comparing Classification Methods for Cognitive Diagnosis

Susan Embretson, Georgia Institute of Technology, John Poggio, University of Kansas

Assessing Cognitive Competencies in Mathematical Achievement with the Multicomponent Latent Trait Model for Diagnosis

Young-Sun Lee, Teachers College–Columbia University, Jimmy de la Torre, Rutgers, The State University of New Jersey

Item-Level Comparison of Saturated and Reduced Cognitive Diagnosis Models

Discussant

André Rupp, University of Maryland

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 4:05 p.m. – 6:05 p.m., Silver Room, E4

Validity Issues for Interim Benchmark Assessment Systems (National Association of Test Directors) – Invited Symposium

Organizer/Moderator

Jack Monpas-Huber, Shoreline Public Schools

Panelists

Judith Arter, Educational Testing Service

Marty McCall, Northwest Evaluation Association

Lorrie Shepard, University of Colorado at Boulder

Discussants

Pamela Moss, University of Michigan

Catherine Taylor, University of Washington

Denver, Colorado

Saturday, 4:05 p.m. – 6:05 p.m., Savoy Room, E5

Developing Tests and Items – Paper Session

Moderator

Adrienne Cadle, *University of South Florida*

Presenters

Rachel Prosser, University of Colorado at Boulder, Guillermo Solano-Flores, University of Colorado at Boulder

Including English Language Learners in the Process of Test Development: A Study on Instrument Linguistic Adaptation for Cognitive Validity

Ian Hembry, The University of Iowa, Catherine Welch, The University of Iowa
Effects of Item Modification on Alternate Assessments Based on Modified Achievement Standards (AA-MAS) Populations

Ying Lu, Educational Testing Service, Hongwen Guo, Educational Testing Service

Establishing IRT Test Targets that Satisfy Classical Difficulty Constraints

Tony Lam, University of Toronto, Gary Allen, University of Toronto, Kathy Green, University of Denver

On A Likert Scale, Is “Neutral” the Same as “Don’t Know” for the Informed and Uninformed Respondents?

Tim Davey, Educational Testing Service, Amy Hendrickson, The College Board
Classical versus IRT Statistical Test Specifications for Building Test Forms

Yi-Hsuan Lee, Educational Testing Service, Tim Davey, Educational Testing Service

An Examination of Context Effects in Linear Test Forms with Items Pretested in a Random Context

Discussant

Kristen Huff, *The College Board*

NCME • 2010 Annual Meeting & Training Sessions

Saturday, 4:05 p.m. – 6:05 p.m., Majestic Ballroom, E6

Common Core Standards and Coordinated State Assessment – Invited Symposium

Organizer/Moderator

Wayne Camara, The College Board

Presenters

Wes Bruce, Indiana Department of Education

Pascal Forgione, Educational Testing Service

Brian Gong, Center for Assessment

Suzanne Lane, University of Pittsburgh

Robert Linn, University of Colorado

John Tanner, Test Sense

Denver, Colorado

Saturday, 6:15 p.m. – 7:30 p.m., Hyatt Regency Denver Hotel,
Centennial Ballroom D

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. This year, besides hors d'oeuvres and drinks, we will have live music from several different bands made up of NCME and AERA members.

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.

Buros Institute – University of Nebraska-Lincoln

The College Board

Educational Testing Service

GED Testing Service/American Council on Education

Graduate Management Admission Council

National Board of Medical Examiners (NBME)

NCME • 2010 Annual Meeting & Training Sessions

Sunday, 8:00 a.m. – 10:15 a.m., Hyatt Regency Denver Hotel,
Centennial Ballroom D

NCME Breakfast, Business Meeting and Presidential Address

Bridging the Gaps Between Theory and Practice

Presenter

Terry A. Ackerman, The University of North Carolina at Greensboro

Denver, Colorado

Sunday, 10:35 a.m. – 12:05 p.m., Denver Room, F1

Invariance and Equating – Paper Session

Moderator

Longjuan Liang, Educational Testing Service

Presenters

Sooyeon Kim, Educational Testing Service, Michael E. Walker, Educational Testing Service

Evaluating Subpopulation Invariance of Linking Functions to Determine the Anchor Composition for a Mixed-Format Test

NooRee Huh, ACT, Inc., Deborah Harris, ACT, Inc.
The Effect of Sampling on the Stability of Concordance

Andrew Dwyer, University of Nebraska–Lincoln, Brett Foley, Buros Center for Testing

Invariance of IRT Equating Across Subpopulations of Different Abilities and Year-To-Year Growth Rates

Yingchen Wang, University of North Carolina at Chapel Hill, Tiese Roxbury, National Collegiate Athletic Association, Fang Chen, University of North Carolina at Greensboro

Bias and Standard Error of Population Invariance Measures

Discussant

Tim Moses, Educational Testing Service

NCME • 2010 Annual Meeting & Training Sessions

Sunday, 10:35 a.m. – 12:05 p.m., Century Room, F2

Issues of Time in Measurement – Paper Session

Moderator

Xiaodong Hou, University of Maryland

Presenters

Aijun Wang, University of Georgia, Allan Cohen, University of Georgia
A Cross-Classified Model for Test Speededness

Frank Goldhammer, DIPF - German Institute for International Educational Research

Application of Response Time Modeling: Speed in Reasoning Tasks and Its Distinctness to Reasoning Ability

Feiming Li, National Board of Osteopathic Medical Examiners, Linjun Shen, National Board of Osteopathic Medical Examiners

Detecting Item Parameter Drift by Item Response and Item Response Time in a Computer-Based Exam

Soo Ingrisone, Pearson, James Ingrisone, Pearson

A Joint Distribution Model Using Item Response and Response Time

Discussant

Neal Kingston, University of Kansas

Denver, Colorado

Sunday, 10:35 a.m. – 12:05 p.m., Gold Room, F3

Reliability in Measurement – Paper Session

Moderator

Alvaro Arce-Ferrer, Pearson

Presenters

Hanwook Yoo, University of Massachusetts–Amherst, N. Scott Bishop, Data Recognition Corporation

Evaluating Proficiency Classification using Testlet Response Theory

Sarah Maughan, National Foundation for Educational Research, UK, Qingping He, Office of the Qualifications and Examinations Regulator, UK

Reliability of Results from National Curriculum Assessment, A UK Perspective

Tawnya Knupp, University of Iowa, Won-Chan Lee, University of Iowa/CASMA, Timothy Ansley, University of Iowa

Estimating Decision Indices for Composite Scores in a Multi-Unidimensional IRT Framework

Lihshing (Leigh) Wang, University of Cincinnati

Impact of Measurement Unreliability on Effect Size Estimation

Discussant

Paul Nichols, Pearson

NCME • 2010 Annual Meeting & Training Sessions

Sunday, 10:35 a.m. – 12:05 p.m., Silver Room, F4

A New Framework and an Old Trend: The Case of NAEP Reading – Coordinated Session

Organizers

*Andreas Oranje, Educational Testing Service
Rebecca Moran, Educational Testing Service*

Moderator

John Mazzeo, Educational Testing Service

Presenters

Patricia Donahue, Educational Testing Service, Nicole Beaulieu, Educational Testing Service

Changes and Challenges: Developing a New Assessment Instrument

Adrienne Sgammato, Educational Testing Service, Rebecca Moran, Educational Testing Service

The Hybrid Assessment Design: A Model for Integrated Bridge Studies

Andreas Oranje, Educational Testing Service, John Mazzeo, Educational Testing Service

A New Assessment and an Old Trend: Analysis Considerations and Challenges

Xueli Xu, Educational Testing Service, Yue Jia, Educational Testing Service, Adrienne Sgammato, Educational Testing Service

To Trend or Not to Trend: Building an Empirical Case Using Observed and Model Based Evidence

Discussant

Lauress Wise, Human Resources Research Organization

Denver, Colorado

Sunday, 10:35 a.m. – 12:05 p.m., Savoy Room, F5

Innovative Considerations in Computer Adaptive Testing – Paper Session

Moderator

Adisack Nhouyvanisvong, Data Recognition Corporation

Presenters

Chen-Wei Liu, National Chung Cheng University, Wen-Chung Wang, The Hong Kong Institute of Education

Computerized Classification Testing under the Generalized Graded Unfolding Model

Kathleen Scalise, University of Oregon

Innovative Item Types: New Results on Intermediate Constraint Questions and Tasks for Computer-Based Testing Using NUI Objects

Susan M. Lottridge, Pacific Metrics Corporation, Alan W. Nicewander, Pacific Metrics Corporation, Howard Mitzel, Pacific Metrics Corporation

A Comparison of Paper and Online Tests Using a Within-Subjects Design and Propensity Score Matching Study

Xin Li, Pearson, Jerry Gorham, Pearson, Ada Woo, National Council of State Boards of Nursing

Evaluating Parameter Drift of Innovative Items in a Computerized Adaptive Test

Discussant

Robert Dolan, Pearson

NCME • 2010 Annual Meeting & Training Sessions

Sunday, 10:35 a.m. – 12:05 p.m., Majestic Ballroom, F6

Career Award Address: Defining and Controlling Errors of Measurement – Invited Symposium

Organizer/Moderator

Michael Kolen, University of Iowa

Presenter

Michael Kane, Educational Testing Service
Defining and Controlling Errors of Measurement

Discussant

Robert Brennan, University of Iowa

Denver, Colorado

Sunday, 12:25 p.m. – 1:55 p.m., Denver Room, G1

Issues with Scoring – Paper Session

Moderator

Lai Kwan Pei, University of Louisiana–Lafayette

Presenters

Michael Chajewski, Fordham University, Rochelle Michel, Educational Testing Service

Assessing the Added Value of Raw and Augmented Subscores in a College-Level Measure of General Education

Maria-Elena Oliveri, University of British Columbia, Matthias von Davier, Educational Testing Service

Investigation of Model Fit and Score Scale Comparability in International Assessments

Guangming Ling, Educational Testing Service

Report Subscore or Not? Comparing Two Methods Based on Simulations

Tian Song, Michigan State University, Mark Reckase, Michigan State University
Comparing Two IRT Scale Score Computation Methods Based on Summed Score

Discussant

Judith Koenig, National Research Council

NCME • 2010 Annual Meeting & Training Sessions

Sunday, 12:25 p.m. – 1:55 p.m., Century Room, G2

Issues with Local Item Independence – Paper Session

Moderator

Johannes Hartig, International Institute for International Educational Research (DIPF)

Presenters

Steffen Brandt, CAU Kiel

Local Item Dependence and Its Impact on Likelihood Calculations

Jessica Mislevy, University of Maryland–College Park

Detecting Local Item Dependence in Polytomous Adaptive Data

Kyunghwa Cho, Florida State University, Seung-Jin Lee, Florida State University, Akihito Kamata, Florida State University

The Effect of Testlet Effect Variance on Q3

Discussant

Craig Wells, University of Massachusetts–Amherst

Denver, Colorado

Sunday, 12:25 p.m. – 1:55 p.m., Gold Room, G3

Issues of Fit in Diagnostic Classification Models – Paper Session

Moderator

Daniel Sass, University of Texas at San Antonio

Presenters

Hye-Jeong Choi, The University of Georgia, Jonathan Templin, The University of Georgia, Allan Cohen, The University of Georgia, Charles Atwood, The University of Georgia

The Impact of Model Misspecification on Estimation Accuracy in Diagnostic Classification Models (DCMs)

Jimmy de la Torre, Rutgers, The State University of New Jersey, Chia-Yi Chiu, Rutgers, The State University of New Jersey

A General Empirical Method of Q-Matrix Validation

Sonia Romero, Universidad Autónoma de Madrid, Vicente Ponsoda, Universidad Autónoma de Madrid, Xavier Ordoñez, Universidad Complutense de Madrid

Sensitivity and Specificity of the Least Square Distance Method (LSDM) for the Detection of Misspecifications in the Q-Matrix

Andrew Dallas, University of North Carolina at Greensboro, Davie Store, University of North Carolina at Greensboro

Highly Correlated: The Effects of Attributal Correlations in Diagnostic Classification Models

Discussant

Daniel Bolt, University of Wisconsin–Madison

NCME • 2010 Annual Meeting & Training Sessions

Sunday, 12:25 p.m. – 1:55 p.m., Silver Room, G4

Estimation Issues in IRT – Paper Session

Moderator

Joshua Goodman, James Madison University

Presenters

Hongwen Guo, Educational Testing Service, Sandip Sinharay, Educational Testing Service

When Does Measurement Error Matter in Nonparametric Item Response Curve Estimation?

Ye Tong, Pearson, Michael Kolen, The University of Iowa

IRT Proficiency Estimators and Their Impact

Feifei Li, University of Pennsylvania, Robert Mislevy, University of Maryland, Shu Jing Yen, Institute for Education Sciences

An Information Correction Method for Testlet-Based Test Analysis: From the Perspectives of Item Response Theory and Generalizability Theory

Yasuo Miyazaki, Virginia Tech, Youngyun Chungbaek, Virginia Tech

Comparison of PQL and Laplace Estimates of Rasch Model Implemented as a Hierarchical Generalized Linear Model

Discussant

Alan W. Nicewander, Pacific Metrics

Denver, Colorado

Sunday, 12:25 p.m. – 1:55 p.m., Savoy Room, G5

Testing Accommodations – Paper Session

Moderator

Kooghyang Um, Pearson

Presenters

Saw Lan Ong, Universiti Sains Malaysia

Improving Science Assessment with Dual-Language Test

Guillermo Solano-Flores, University of Colorado at Boulder

Vignette Illustrations as a Form of Testing Accommodation for English Language Learners: A Design Methodology for Use in Large-Scale Science Assessment

Karla Egan, CTB/McGraw-Hill, M. Christina Schneider, CTB/McGraw-Hill, Karen Barton, CTB/McGraw-Hill, Diana Marr, CTB/McGraw-Hill

Exploring the Equivalence of the Test Construct for Various Subgroups Using Residual Analysis

Yi-Chen Wu, National Center on Educational Outcome, Martha Thurlow, National Center on Educational Outcome, Kentaro Kato, National Center on Educational Outcome

A Longitudinal Analysis of State Accommodations Policies on the Participation Rate and the Proficiency Rate for Students with Disabilities

Discussant

Eric Hansen, Educational Testing Service

NCME • 2010 Annual Meeting & Training Sessions

Sunday, 12:25 p.m. – 1:55 p.m., Majestic Ballroom, G6

Are You Being Served? Operational Difficulties in Serving Real and Perceived Needs of State Assessment Clients – Invited Symposium

Organizer/Moderator

Luz Bay, Measured Progress

Presenters

Luz Bay, Measured Progress

Daniel Lewis, CTB/McGraw-Hill

Dianne Henderson-Montero, Educational Testing Service

Paul Nichols, Pearson

Discussant

Robert Brennan, University of Iowa

Denver, Colorado

Sunday, 2:15 p.m. – 3:45 p.m., Denver Room, H1

New Directions for Standard Setting: Using Cognitive Diagnostic Model, Mixture Rasch Model, SALTUS Model, and Synthesized Classification Models – Coordinated Session

Organizers

*Hong Jiao, University of Maryland
Robert Lissitz, University of Maryland
Feifei Li, University of Pennsylvania*

Moderator

Robert Lissitz, University of Maryland

Presenters

*Robert Lissitz, University of Maryland, Feifei Li, University of Pennsylvania
Standard Setting in Complex Performance Assessments: An Approach Aligned with Cognitive Diagnostic Models*

Hong Jiao, University of Maryland, Robert Lissitz, University of Maryland, George Macready, University of Maryland, Shudong Wang, Educational Testing Service

Comparing the Use of Mixture Rasch Model and Judgmental Procedures for Standard Setting

*Karen Draney, University of California–Berkeley
Investigating the Saltus Model as a Tool for Setting Standards*

*Jonathan Templin, University of Georgia
Classification Model Based Standard Setting Methods*

Discussant

Matthias von Davier, Educational Testing Service

NCME • 2010 Annual Meeting & Training Sessions

Sunday, 2:15 p.m. – 3:45 p.m., Century Room, H2

Issues with Computer Adaptive Testing – Paper Session

Moderator

Duanli Yan, Educational Testing Service

Presenters

Brian Bontempo, Mountain Measurement, Inc., Gage Kingsbury, Northwest Evaluation Association, Anthony Zara, Pearson VUE

A Comparison of Hybrid Progressive Item Selection Procedures for Adaptive Tests

Eileen Talento-Miller, Graduate Management Admission Council, Fanmin Guo, Graduate Management Admission Council, Kyung Han, Graduate Management Admission Council

Mythbusters: A Practical Look at the Effect of Position of Correct Responses on a Computerized Adaptive Test

Kyoko Ito, Human Resources Research Organization, Daniel Segall, Defense Manpower Data Center

An Evaluation of a New Procedure for Obtaining Information Functions for Maximum-Likelihood Scores from Computerized Adaptive Tests: Conditional Averaging on Theta

Yasuko Nogami, The Japan Institute for Educational Measurement, Inc.

Effects of Switching IRT Models from 3PL to 2PL in a CAT

Discussant

Juan Barrada, Universidad Autonoma de Barcelona

Denver, Colorado

Sunday, 2:15 p.m. – 3:45 p.m., Gold Room, H3

Research on Reliability – Paper Session

Moderator

Chunyan Liu, University of Iowa

Presenters

Ying Cheng, University of Notre Dame, Ke-Hai Yuan, University of Notre Dame
How to Retain Information in Educational and Psychological Assessments – Relations Among Three Reliability Measures

Lianghua Shu, CTB/McGraw-Hill, Richard Schwarz, Educational Testing Service
IRT Estimated Reliability for Tests Containing Mixed Item Formats

Marc Gessaroli, National Board of Medical Examiners

A Comparison of Reliability Estimates for Random and Fixed Multidimensionality

Gee Hune Kim, Teachers College–Columbia University, Young-Sun Lee, Teachers College–Columbia University, Yoon Soo Park, Teachers College–Columbia University

Multiple Imputation with Fully Conditional Specification Approach: Estimation of Reliability Coefficient with Missing Data

Discussant

Michael Rodriguez, University of Minnesota

NCME • 2010 Annual Meeting & Training Sessions

Sunday, 2:15 p.m. – 3:45 p.m., Silver Room, H4

Vertical Scaling – Paper Session

Moderator

Thakur Karkee, Measurement Incorporated

Presenters

Yuming Liu, Educational Testing Service

Standard Error Estimation Based on the Thurstone Method and Item Response Theory in Vertical Scaling

Joanna Tomkowicz, CTB/McGraw-Hill, Litong Zhang, CTB/McGraw-Hill, Shu Jing Yen, Institute of Education Sciences

Comparison of Vertical Scaling Maintenance Methods and Their Impact on Scale Properties

Shudong Wang, Northwest Evaluation Association, Hong Jiao, University of Maryland, Ying Jin, AIR, Yeow Meng Thum, Northwest Evaluation Association

Investigating Effect of Ignoring Hierarchical Data Structures on Accuracy of Vertical Scaling Using Mixed-Effects Rasch Model

Xuan Wang, ACT, Inc., Deborah Harris, ACT, Inc.

Linking Across Forms in Vertical Scaling Under the Common-Item Nonequivalent Groups Design

Discussant

Lilly Zhang, Educational Testing Service

Denver, Colorado

Sunday, 2:15 p.m. – 3:45 p.m., Savoy Room, H5

Item Response Theory Modeling – Paper Session

Moderator

Yi Du, Data Recognition Corporation

Presenters

Mabel Kung, Cal State Fullerton, Ron Armstrong, Rutgers, The State University of New Jersey

Determining CUSUM Critical Values and Alternative Response Probabilities for a Finite Mixed Binomial Sample

Sungyeun Kim, University of Incheon, Yeonjeong Kim, Yonsei University, Guemin Lee, Yonsei University

The Utility of the Rasch Poisson Counts Model with Zero-Inflated Data

Sunhee Kim, Teachers College–Columbia University, Gregory Camilli, University of Colorado

IRT Modeling Using the Generalized Linear Mixed Model: A Longitudinal Study with Ordinal Scale Items

Ying Li, University of Maryland, Hong Jiao, University of Maryland
Multilevel Polytomous Testlet Model

Discussant

Brian Habing, University of South Carolina

NCME • 2010 Annual Meeting & Training Sessions

Sunday, 2:15 p.m. – 3:45 p.m., Majestic Ballroom, H6

Large Scale Assessment – Paper Session

Moderator

Goran Lazendic, The University of New South Wales Global

Presenters

Anli Lin, Pearson, Qing Yi, Pearson, Michael Young, Pearson
Improving the Post-Smoothing of Test Norms with Kernel Smoothing

Yue Jia, Educational Testing Service, Jiahe Qian, Educational Testing Service,
Mei-Jang Lin, Educational Testing Service
Effect Size Measurement and Its Application in Examining Reporting Targets of NAEP

Kyoungwon Bishop, Data Recognition Corporation, John Denbleyker, University of Iowa, N. Scott Bishop, Data Recognition Corporation
Tracking Achievement using Percentage of Students At or Above a Cut: Some Challenges and Possible Solutions

Pamela Paek, The National Center for the Improvement of Educational Assessment
From Theory to Practice: Data Use across States, Districts, and Schools

Discussant

Gerald Melican, The College Board

Denver, Colorado

Sunday, 4:05 p.m. – 6:05 p.m., Denver Room, I1

DIF and Model Fit – Paper Session

Moderator

Kadriye Ercikan, University of British Columbia

Presenters

Lai Kwan Pei, University of Louisiana–Lafayette, Jun Li, University of California–Riverside

Should 2PL or 3PL be used to Generate Data for DIF Detection Simulation Studies?

Craig Wells, University of Massachusetts–Amherst, Lisa Keller, University of Massachusetts–Amherst

The Effect of Model Misfit on Parameter Invariance

Randall Penfield, University of Miami

Explaining Crossing DIF in Polytomous Items using Divergent Differential Step Functioning Effects

Jacob Seybert, University of South Florida, Stephen Stark, University of South Florida

Iterative Linking with the Differential Functioning of Items and Test (DFIT) Method: Comparison of Testwide and Item Parameter Replication Significance Thresholds

Dorinda Gallant, The Ohio State University

Assessing the Effect of Classroom Context on Ethnic-Based Differential Item Functioning on a Performance Assessment

Discussant

Irina Grabovsky, National Board of Medical Examiners

NCME • 2010 Annual Meeting & Training Sessions

Sunday, 4:05 p.m. – 6:05 p.m., Century Room, I2

Evolving Testing Programs: Maintaining Psychometric Integrity in Dynamic Policy Environments – Coordinated Session

Organizers

*Dianne Henderson-Montero, Educational Testing Service
Chad Buckendahl, Alpine Testing Solutions*

Moderator

Dianne Henderson-Montero, Educational Testing Service

Presenters

Jan Hoegh, Nebraska Department of Education
Transitioning from a Local to a Centralized Assessment System: Issues and Solutions

Joe Willhoft, Washington Office of Superintendent of Public Instruction
Keeping Measures Stable in Changing Contexts

John Mazzeo, Educational Testing Service, Mary Pitoniak, Educational Testing Service
Managing Change in the National Assessment of Educational Progress - Lessons Learned

Don Klinger, Queens University, Todd Rogers, University of Alberta
Provincial Examination Programs in Canada: Shifting Purposes and Perceptions

Dianne Henderson-Montero, Educational Testing Service, Chad Buckendahl, Alpine Testing Solutions
Psychometric Challenges in a Rapidly Changing Environment

Discussant

William Schafer, University of Maryland

Denver, Colorado

Sunday, 4:05 p.m. – 6:05 p.m., Gold Room, I3

Implementation Issues in Automated Test Assembly – Coordinated Session

Organizer/Moderator

Wim van der Linden, CTB/McGraw-Hill

Presenters

Kyung (Chris) Han, Graduate Management Admission Council, Lawrence Rudner, Graduate Management Admission Council

Implementing Mixed Integer Programming to Construct Item Pools for Computerized Adaptive Testing Programs

Oliver Zhang, American Institute of Certified Public Accountants, Donovan Hare, OptimalLogic

Application of Optimization Techniques in ca-MST Assembly for Item Exposure Control and Pool Utilization

Wim van der Linden, CTB/McGraw-Hill, Qi Diao, CTB/Mcgraw-Hill
Automated Test Form Generation

John Donoghue, CTB/McGraw-Hill

Comparison of IP Solvers for Automated Test Assembly

Qi Diao, CTB/McGraw-Hill, Wim van der Linden, CTB/McGraw-Hill
Automated Test Assembly Using lp solve Version 5.5 from R

Discussant

Krista Breithaupt, American Institute of Certified Public Accountants

NCME • 2010 Annual Meeting & Training Sessions

Sunday, 4:05 p.m. – 6:05 p.m., Silver Room, I4

Approaches to DIF Detection – Paper Session

Moderator

Kevin Joldersma, Measurement Incorporated

Presenters

Lihua Yao, Defense Manpower Data Center, Feiming Li, National Board of Osteopathic Medical Examiners

A DIF Detection Procedure in Multidimensional Framework and its Applications

S. Natasha Beretvas, University of Texas at Austin, Cindy Walker, University of Wisconsin at Milwaukee

Extending the Multilevel Measurement Model for Differential Testlet Functioning Identification: A Demonstration and Evaluation

Michelle Langer, National Board of Medical Examiners

Extending the Wald Test for Differential Item Functioning to Multiple Groups

Minjeong Jeon, University of California–Berkeley, Frank Rijmen, Educational Testing Service

Assessing Differential Item Functioning for Testlet-Based Tests Using the Bifactor Model

Qian Liu, Florida State University, Akihito Kamata, Florida State University

Item Purification in Differential Item Functioning Using Generalized Linear Mixed Model

Discussant

Ruth Childs, University of Toronto

Denver, Colorado

Sunday, 4:05 p.m. – 6:05 p.m., Savoy Room, I5

Making the Most of Innovative Items – Coordinated Session

Organizers

*Joshua Goodman, James Madison University,
J. Christine Harmes, James Madison University*

Moderator

Joshua Goodman, James Madison University

Presenters

J. Christine Harmes, James Madison University, Cynthia Parshall, Measurement Consultant

A Model for Planning, Designing, and Developing Innovative Items

Matthew Burke, University of North Carolina at Greensboro, Zhan Shu, University of North Carolina at Greensboro, Richard Luecht, University of North Carolina at Greensboro

Controlling Difficulty and Security for Complex Computerized Performance Exercises using Assessment Engineering

Joshua Goodman, James Madison University, J. Christine Harmes, James Madison University

Practical Considerations in Modeling the Responses from Complex Performance Exercises

David M. Williamson, Educational Testing Service

How to Lie about Automated Scoring

Kirk Becker, Pearson VUE

The Care and Feeding of Innovative Items: Practical and Operational Considerations

Discussants

Denny Way, Pearson Educational Measurement

Tim Davey, Educational Testing Service

NCME • 2010 Annual Meeting & Training Sessions

Sunday, 4:05 p.m. – 6:05 p.m., Majestic Ballroom, I6

View from the Top of the Mountain – Invited Symposium

Organizer/Moderator

Terry A. Ackerman, The University of North Carolina at Greensboro

Presenters

Robert Brennan, University of Iowa

Ron Hambleton, University of Massachusetts at Amherst

Robert Linn, University of Colorado at Boulder

William Mehrens, Michigan State University

Barbara S. Plake, University of Nebraska

Lorrie Shepard, University of Colorado at Boulder

Wendy Yen, Educational Testing Service

Denver, Colorado

Sunday, 4:05 p.m. – 6:05 p.m., Vail Room, I7

Graduate Student Poster Session

Sponsored by the Graduate Student Issues Committee

Organizers

Mary Roduta Roberts, University of Alberta

Sarah Hagge, University of Iowa

Wendy Lam, University of Massachusetts

Chad Gotch, Washington State University

George MacDonald, University of South Florida

Aminah Perkins, Emory University

Presenters

Tashia D.S. Abry, University of Virginia, Leslie M. Booren, University of Virginia,

Patrick J. Meyer, University of Virginia, Jason T. Downer, University of Virginia

Analyzing Observational Ratings of Classroom Interactions: An Application of Generalizability Theory to inCLASS Scores

Carol L. Barry, James Madison University, S. Jeanne Horst, James Madison University, Allison R. Brown, James Madison University, Sara J. Finney, James Madison University, Jason P. Kopp, James Madison University

Do Types of Test-Takers Exist? A High-Stakes Question for Low-Stakes Testing

Tzu-An Ann Chen, University of Texas at Austin, S. Natasha Beretvas, University of Texas at Austin

Sample Sizes Necessary for Estimating the Three-Level Multilevel Latent Growth Model

Ronli Diakow, University of California–Berkley, David Torres Irribarra, University of California–Berkley, Mark Wilson, University of California–Berkley

New Graphical Methods for the Representation of Ordered Partition Models

Richard A. Feinberg, National Board of Medical Examiners, Nilufer Kahraman, National Board of Medical Examiners, Kimberly A. Swygert, National Board of Medical Examiners, Ratna Nandakumar, University of Delaware

Modeling Computer-Based Case Simulations Using Mixed Models

Chad M. Gotch, Washington State University, Brian F. French, Washington State University

Sex Differences in Item Functioning in the Comprehensive Inventory of Basic Skills-II

NCME • 2010 Annual Meeting & Training Sessions

Matthew W. Grady, University of Texas at Austin, Brandon K. Vaughn, University of Texas at Austin, Barbara G. Dodd, University of Texas at Austin
Using Group-Specific Priors for Trait Estimation in Computerized Adaptive Testing: Potential Applications and Advantages

Chueh-An Hsieh, Michigan State University
A Unified Model for the Analysis of Individual Latent Trajectories: An Evaluation Study of Model Parameter Estimate Performance

Sui Huang, The Ohio State University, Jerome D'Agostino, The Ohio State University
Alternative Predictors of College Performance: A Meta-Analytic Study

Anne Corinne Huggins, University of Miami
Examining Different Weighting Methods when Utilizing the Root Expected Mean Square Difference Index to Assess Population Invariance in Linking Functions

Andrea L. Jehly, University of Wisconsin–Milwaukee, Bo Zhang, University of Wisconsin–Milwaukee
IRT Parameter Estimation for Small Samples and Short Tests Using the Graded Response Model

Jiyoung Jung, Yonsei University, Moonsoo Lee, Yonsei University, Guemin Lee, Yonsei University
Comparison of IRT Equating Results for Mixed-format Tests According to Differences of Item Difficulty and Discrimination Parameters Between Anchor and Total Tests

Daniel P. Jurich, James Madison University, Joshua T. Goodman, James Madison University, Kirk A. Becker, Pearson VUE
The Impact of Cheating on the Assignment of Pass/Fail Scores under Various Equating Methods

Jiseon Kim, University of Texas at Austin, Barbara G. Dodd, University of Texas at Austin
Comparing Computer-Based Classification Testing Approaches using Mixed-Format Tests with the Generalized Partial Credit Model

Kristina LaVenia, Florida State University, Mark LaVenia, Florida State University, Laura B. Lang, Florida State University
Development of a Short Form of the California Measure of Mental Motivation (CM3)

Hollis Lai, Centre for Research in Applied Measurement and Evaluation, University of Alberta, Kirk Becker, Pearson VUE
Using Artificial Neural Network for Enemy Item Detection

Denver, Colorado

Joni M. Lakin, University of Iowa

Equivalent Measurement Models for a Multidimensional Ability Test in a Sample of English Language Learners and Native English Speakers

Eunjung Lee, University of Iowa, Won-Chan Lee, University of Iowa

Comparison of Standard Error of Measurement and Standard Error of Equating Using Various Equating Methods

Moonsoo Lee, Yonsei University, Guemin Lee, Yonsei University

A Comparison of IRT Equating for Mixed-Format Tests with Multidimensional Case

Ying Li, University of Maryland, Hong Jiao, University of Maryland, Robert W. Lissitz, University of Maryland

Investigation of Content Clustering in Large-scale Science Assessments Using Multidimensional IRT and Testlet Models

Yeongyu Lim, Georgia Institute of Technology, Susan Embretson, Georgia Institute of Technology, John Poggio, University of Kansas

Diagnosing Sources of Mathematical Difficulties from Performance on a State Accountability Test

Chunyan Liu, University of Iowa, Michael Kolen, University of Iowa

A Comparison among IRT Equating Methods and Traditional Equating Methods for Mixed Format Tests

L. Leland Lockhart, III, University of Texas at Austin, S. Natasha Beretvas, University of Texas at Austin, Stephanie Cawthon, University of Texas at Austin, Alyssa Kaye, University of Texas at Austin

Comparing Multilevel Measurement Models' Assessment of Accommodations' Moderation of Linguistic Complexity's Effect on Item Difficulties

Jaime Maerten-Rivera, University of Miami, Nicholas Myers, University of Miami, Randall Penfield, University of Miami, Soyeon Ahn, University of Miami, Okhee Lee, University of Miami

A Comparison of Model Longitudinal Change Models with an Examination of the Error Covariance Structure

Yu Meng, University of Massachusetts–Amherst, Craig S. Wells, University of Massachusetts–Amherst, Ronald K. Hambleton, University of Massachusetts–Amherst

The Impact of Missing Data on Assessing Dimensionality

Joseph R. Newton, University of Wisconsin–Madison, Daniel M. Bolt, University of Wisconsin–Madison

Parameter Recovery for a New Multidimensional Partial Credit Model

NCME • 2010 Annual Meeting & Training Sessions

Yoon Soo Park, Teachers College—Columbia University, Lawrence T. De Carlo, Teachers College—Columbia University

Rater Drift in Constructed Response Scoring: A Longitudinal Analysis of Rater Behavior via Latent Class Signal Detection Theory

Jeffrey M. Patton, Notre Dame University, Ying Cheng, Notre Dame University
The Effect of Item Calibration Error on Uncertainty in Ability Estimation

Jonathan D. Rubright, University of Delaware, Ratna Nandakumar, University of Delaware, Kristin Harkins, University of Pennsylvania, Jason Karlawish, University of Pennsylvania

DIF and Research Attitudes: Does Race Matter?

Jason Schweid, University of Massachusetts—Amherst, Stephen G. Sireci, University of Massachusetts—Amherst

Apples to Oranges: Evaluating the Comparability of Paper- and Computer-Based Math and Science Tests using MDS

MinJeong Shin, Yonsei University, Jung A. Han, Yonsei University, In-Yong Park, Yonsei University, Guemin Lee, Yonsei University

Estimating Conditional Standard Errors of Measurement for the Aptitude Test Composed of Testlets Using G-Theory and IRT Approaches

Hongwook Suh, University of Kansas

A Study of Bayesian Estimation and Comparison of Response Time Models in IRT

Joshua Tudor, University of Iowa, Jin Gong, University of Iowa, Wei Cheng Liu, University of Iowa

Representativeness of a Small Norming Sample with School Title I Eligibility as a Stratification Variable

Hao Wu, The Ohio State University, Steven N. MacEachern, The Ohio State University

Detecting Monotonic Selection Effect via Nonparametric Bayesian Item Response Model

Ting Xu, University of Pittsburgh, Clement A. Stone, University of Pittsburgh
Using IRT Trait Estimates Versus NR Scores in Predicting Outcomes

Hanwook Yoo, University of Massachusetts—Amherst, Stephen G. Sireci, University of Massachusetts—Amherst

Evaluating the Structure of a Language Proficiency Test across Second-Language and Heritage Language Examinees

Mo Zhang, Washington State University, Brian F. French, Washington State University

Gender Related Differential Item Functioning in Mathematics Tests: A Meta-Analysis

Denver, Colorado

Monday, 5:45 a.m. – 7:30 a.m., Sheraton Denver Downtown Hotel Lobby

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 Denver. Meet in the lobby at 5:45 a.m. Pre-registration is required.

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The College Board

Educational Testing Service

GED Testing Service/American Council on Education

Graduate Management Admission Council

National Board of Medical Examiners (NBME)

NCME • 2010 Annual Meeting & Training Sessions

Monday, 8:15 a.m. – 10:15 a.m., Denver Room, J1

New Constructs and New Measures for Higher Education Admissions – Coordinated Session

Organizer/Moderator

Patrick Kyllonen, Educational Testing Service

Presenters

Sheldon Zedeck, University of California, Marjorie Shultz, University of California–Berkeley

New Constructs and Measures for Law School Admissions

Wayne Camara, The College Board

New Predictors in Admissions: Challenges in Moving Higher Education from Judgmental Predictors to Standardized Measures

Veronica Santelices, Catholic University–Santiago, Chile

Measurement of New Attributes for Chile's Higher Education Admissions System

Lutz Hornke, RWTH Aachen University, Daniel Putz, RWTH Aachen University

How to Choose an Appropriate Major? Self-Assessments for Prospective University Students

Patrick Kyllonen, Educational Testing Service

Assessing Personal Attributes for Graduate School Admissions: The Personal Potential Index (PPI)

Discussants

Eva Baker, University of California–Los Angeles

David Lohman, University of Iowa

Denver, Colorado

Monday, 8:15 a.m. – 10:15 a.m., Majestic Ballroom, J2

Quality Assurance and Control in Automated Scoring – Coordinated Session

Organizer/Moderator

Isaac Bejar, Educational Testing Service

Presenters

Richard Luecht, University of North Carolina at Greensboro

Some Small-Sample Statistical Quality Control Procedures for Constructed Response Scoring in Language Testing

Catherine McClellan, Educational Testing Service

Quality Assurance and Control of Human Scoring in Large-Scale Tests

Brian Clauser, National Board of Medical Examiners, Polina Harik, National Board of Medical Examiners, Ulana Dubas, National Board of Medical Examiners, Constance Murray, National Board of Medical Examiners, Richard Feinberg, National Board of Medical Examiners

Quality Control for the Automated Scoring of Computer-Based Case Simulations in the United States Medical Licensing Examination

Krista Breithaupt, American Institute of Certified Public Accountants, Elaine Rodeck, American Institute of Certified Public Accountants, Peter Brittingham, American Institute of Certified Public Accountants

Risks and Controls in the Automated Scoring of Accounting Tasks

Isaac Bejar, Educational Testing Service

Towards a Quality Assurance and Control Framework for Automated Scoring

Discussants

Denny Way, Pearson

Larry Rudner, Graduate Management Admission Council

NCME • 2010 Annual Meeting & Training Sessions

Monday, 8:15 a.m. – 10:15 a.m., Gold Room, J3

Modeling Growth in Multiple Dimensions: Issues and Consequences – Coordinated Session

Organizer

Jonathan Weeks, University of Colorado at Boulder

Moderator

Matthew Gaertner, University of Colorado at Boulder

Presenters

Ji Zeng, Michigan Department of Education, Joseph Martineau, Michigan Department of Education

A Method for Identifying Dimensionality

Peng Lin, Educational Testing Service, Robert Lissitz, University of Maryland

Developing a Multidimensional Vertical Scale: The Impact of Calibration Decisions on Interpretations of Growth

Joseph Martineau, Michigan Department of Education, Adam Wyse, Michigan Department of Education, Ji Zeng, Michigan Department of Education

Impact of Construct Shift on Measures of Growth

Jonathan Weeks, University of Colorado at Boulder, Derek Briggs, University of Colorado at Boulder, Ben Domingue, University of Colorado at Boulder

Is a Multidimensional Vertical Scale Really Necessary: Examining Achievement Growth on Multiple Dimensions

Frank Rijmen, Educational Testing Service

A Model for Measuring Multidimensional Latent Growth

Discussants

Mark Reckase, Michigan State University

Daniel Bolt, University of Wisconsin–Madison

Denver, Colorado

Monday, 8:15 a.m. – 10:15 a.m., Silver Room, J4

Standard Setting – Paper Session

Moderator

Carol Morrison Featherman, National Board of Medical Examiners

Presenters

Irvin Katz, Educational Testing Service, Richard Tannenbaum, Educational Testing Service

Comparison of Web-Based and Face-to-Face Standard Setting Using the Angoff Method

Guemin Lee, Yonsei University, In-Yong Park, Yonsei University, Myung-Suk Lee, Yonsei University, Yeonbok Park, Yonsei University, Kyung-Sung Kim, Seoul National University of Education

A Study on the External Validity of the Angoff and Bookmark Standard Setting Methods

Julie Miles, Pearson, Walter Way, Pearson, Jennifer Beimers, Pearson

The Modified Briefing Book Standard Setting Method: Using Validity Data as a Basis for Setting Cut Scores

Mary Hansen, Robert Morris University, Steven Lyon, University of Pittsburgh, Peter Heh, University of Pittsburgh, Naomi Zigmond, University of Pittsburgh

Comparing Panelists' Understanding of Standard Setting Across Multiple Levels of an Alternate Science Assessment

Yi-Fang Wu, The University of Iowa, Hueying Tzou, National University of Tainan

Evaluating the Utility and Validity of IRT-Based Approaches in the Modified Angoff Standard-Setting Method

Discussant

Daniel Lewis, CTB/McGraw-Hill

NCME • 2010 Annual Meeting & Training Sessions

Monday, 8:15 a.m. – 10:15 a.m., Century Room, J5

Item Pool and Item Selection in Computer Adaptive Tests – Paper Session

Moderator

Lei Yu, Pacific Metrics

Presenters

Nathan Wall, ACT, Inc.

Investigating Calibration Effects on Items in Concurrent Calibrations for Use in Item Banking

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

Improving Item Pool Usage for Computerized Adaptive Testing

Kyung (Chris) T. Han, Graduate Management Admission Council

Comparison of Non-Fisher-Information-Based Item Selection Criteria in Fixed-Length Computerized Adaptive Testing

Fanmin Guo, Graduate Management Admission Council

A Simple Method for Controlling Test Time Intensity in CAT

Wei He, Michigan State University, Mark Reckase, Michigan State University

Optimal item Pool Design for a Constrained Computerized Adaptive Test

Ya-Hui Su, National Chung Cheng University—Taiwan, Wen-Chung Wang, The Hong Kong Institute of Education

Investigating Cheating Effects on the Conditional Sympson and Hetter Online Procedure with Freeze Control for Testlet-Based Items

Discussant

James Olsen, Alpine Testing Solutions

Denver, Colorado

Monday, 8:15 a.m. – 10:15 a.m., Savoy Room, J6

The Impact of Linking Data on the Results of IRT Equating: The Pretest Effect and Approaches for Improvement – Coordinated Session

Organizer/Moderator

Anton Béguin, Cito

Presenters

Peter Van Rijn, Cito

Exposing Trends in Populations in the Context of Test Equating

Anton Béguin, Cito, Marie-Anne Mittelhaëuser, Tilburg University

Application of Different Sources of Linking Data: Internal and External Anchor Data Versus Pre-Test Data

Barbara Donahue, Qualifications and Curriculum Development Agency, Anton Béguin, Cito

Efforts to Remove the ‘Pretest Effect’

Discussant

Cees Glas, University of Twente

NCME • 2010 Annual Meeting & Training Sessions

Monday, 10:35 a.m. – 12:05 p.m., Denver Room, K1

Score Reporting – Paper Session

Moderator

Yi-Chen Wu, University of Minnesota

Presenters

Jianbin Fu, Educational Testing Service, Yanxuan Qu, Educational Testing Service

A Comparison of Subscore Reporting Approaches on Mixed Format Tests

Diego Zapata-Rivera, Educational Testing Service, Waverely VanWinkle, Educational Testing Service, Rebecca Zwick, Educational Testing Service

Exploring Effective Communication and Appropriate Use of Assessment Results through Teacher Score Reports

Alvaro J. Arce-Ferrer, Pearson

Derivation of a Reliability Index for an Individual Profile: A Multi-Factor Congeneric Approach with Guttman Error Structures

Ji Seung Yang, University of California–Los Angeles, Mark Hansen, University of California–Los Angeles, Li Cai, University of California–Los Angeles

Characterizing Sources of Uncertainty in IRT Scale Scores

Discussant

Guangming Ling, Educational Testing Service

Denver, Colorado

Monday, 10:35 a.m. – 12:05 p.m., Century Room, K2

Issues in Growth Modeling – Paper Session

Moderator

Susan Loomis, National Assessment Governing Board

Presenters

Liru Zhang, Delaware Department of Education, Shudong Wang, Northwest Evaluation Association

Using Longitudinal Data to Measure Student Academic Growth

Zhen (Jane) Wang, Educational Testing Service

Achievement Gap and Growth: An Investigation of Gender, Ethnic Differences and School Effects

Chingwei Shin, Pearson, Yuehmei Chien, Pearson

An Exploration of Methods for Evaluation of Individual and School Progress at the Subscale Level

Daeryong Seo, Pearson, Ian Little, Pearson, Insu Paek, Educational Testing Service

Multilevel Growth Mixture Analysis of Developmental Trajectories of Achievement Motivational Beliefs across Subject Areas

Discussant

Carole Gallagher, WestEd

NCME • 2010 Annual Meeting & Training Sessions

Monday, 10:35 a.m. – 12:05 p.m., Gold Room, K3

Multidimensional IRT – Paper Session

Moderator

Anton Béguin, Cito

Presenters

Daniel Bolt, University of Wisconsin–Madison, Joseph Newton, University of Wisconsin–Madison

Application of a Multidimensional Partial Credit Model Allowing Within-Item Slope Heterogeneity

Yu Fang, Act, Inc., Yang Lu, Michigan State University

The Effect of Proficiency Correlation on the Application of Multidimensional IRT Model

Minh Duong, Michigan State University, Mark Reckase, Michigan State University

Linking Multidimensional Item Calibrations: Which Dimensions Should the Anchor Cover?

Li Cai, University of California–Los Angeles, Mark Hansen, University of California–Los Angeles, Ji Seung Yang, University of California–Los Angeles
Extended Full-Information Item Bifactor Analysis

Discussant

Lihshing Leigh Wang, University of Cincinnati

Denver, Colorado

Monday, 10:35 a.m. – 12:05 p.m., Silver Room, K4

Assessment of Learning in the Context of Educational Reform: Experiences from América Latina – Invited Symposium

Organizer/Moderator

Michael C. Rodriguez, University of Minnesota

Presenters

Lorena Meckes, Universidad Católica

The Case of Chile, Challenges and Lessons Learned

Fernando Rubio, USAID-Guatemala

The Case of Guatemala, Challenges and Lessons Learned

Michael Fast, American Institutes of Research

The Case of Honduras, Challenges and Lessons Learned

NCME • 2010 Annual Meeting & Training Sessions

Monday, 10:35 a.m. – 12:05 p.m., Savoy Room, K5

Mixture Models in Measurement – Paper Session

Moderator

Dena Pastor, James Madison University

Presenters

Hong Jiao, University of Maryland, Matthias von Davier, Educational Testing Service, Shudong Wang, Northwest Evaluation Association

Polytomous Mixture Rasch Testlet Model

Natalia Alexeev, University of Georgia, Jonathan Templin, University of Georgia, Allan Cohen, University of Georgia

Detecting Latent Classes in Mixture Rasch Models

Yunyun Dai, University of Maryland–College Park, Robert Mislevy, University of Maryland–College Park

A Mixture Rasch Model with Covariate: A Simulation Study Via Bayesian MCMC Estimation

Ruth Childs, University of Toronto, Orlena Broomes, University of Toronto, Monique Herbert, University of Toronto

Understanding Response Processes: A Latent Class Analysis Approach

Discussant

Matthew Johnson, Teachers College–Columbia University

Denver, Colorado

Monday, 10:35 a.m. – 12:05 p.m., Majestic Ballroom, K6

Extreme Equating: How Far will Assumptions Bend Before They Break? – Coordinated Session

Organizers

*Lisa Keller, University of Massachusetts–Amherst
William Skorupski, University of Kansas*

Moderator

H. Jane Rogers, University of Connecticut

Presenters

Kinge Mbella, University of North Carolina at Greensboro, Robert Keller, Measured Progress, Liz Burton, Measured Progress
Is There a Best Method to Equate Test Scores from Small Samples?

Hariharan Swaminathan, University of Connecticut, H. Jane Rogers, University of Connecticut, Rohini Sen, University of Connecticut
Linking in Multidimensional Item Response Models

Lisa Keller, University of Massachusetts–Amherst, Robert Keller, Measured Progress, Jennifer Dunn, Measured Progress, Tyler Lonczak, Measured Progress
Establishing a Common Scale for Accommodated Test Forms and Special Populations Using IRT

William Skorupski, University of Kansas
The Effects of Multidimensionality Across Grade Levels on Creating a Vertical Scale

Peter Baldwin, National Board of Medical Examiners, Robert Keller, Measured Progress, Robert Cook, University of Massachusetts–Amherst, Su Baldwin, National Board of Medical Examiners
Developing a Common Metric in IRT When No Link Exists

Discussants

*Wim van der Linden, CTB/McGraw-Hill
Daniel Eignor, Educational Testing Service*

NCME • 2010 Annual Meeting & Training Sessions

Monday, 12:25 p.m. – 1:55 p.m., Denver Room, L1

Test Security – Paper Session

Moderator

Ronald Armstrong, Rutgers, The State University of New Jersey

Presenters

Ifeoma Iyioke, Michigan State University

The Distribution of a Proximity Index: Bootstrap and Kernel Estimators

Dmitry Belov, Law School Admission Council, Ronald Armstrong, Rutgers, The State University of New Jersey

Detection of Heterogeneity in Response Data

Xavier G. Ordoñez, Universidad Complutense de Madrid, José Luis Gaviria Soto, Universidad Complutense de Madrid, Sonia Romero, Universidad Autónoma de Madrid

KSC: A Statistic for the Detection of Answer Copying

Jinming Zhang, University of Illinois at Urbana-Champaign, Ting Lu, University of Illinois at Urbana-Champaign

A Further Look at the Sequential Procedure for Detecting Compromised Items

Discussant

Russell Smith, Alpine Testing Solutions

Denver, Colorado

Monday, 12:25 p.m. – 1:55 p.m., Century Room, L2

Dimensionality Analysis in IRT – Paper Session

Moderator

Lixiong Gu, Educational Testing Service

Presenters

Jiahe Qian, Educational Testing Service

Effects of Sampling Variability on Dimensionality Analysis

Roy Levy, Arizona State University, Dubravka Svetina, Arizona State University

A Framework for Characterizing Dimensionality Assessment and Overview of Current Approaches

Tan Li, University of South Carolina, Brian Habing, University of South Carolina, Louis Roussos, Measured Progress

Conditional Covariance-Based Subtest Selection for Polytomous Item DIMTEST

Meng Wu, Educational Testing Services, Brian Habing, University of South Carolina

DETECT Based Hypothesis Test for Unidimensionality

Discussant

Frank Goldhammer, DIPF - German Institute for International Educational Research

NCME • 2010 Annual Meeting & Training Sessions

Monday, 12:25 p.m. – 1:55 p.m., Gold Room, L3

Item and Scale Drift – Paper Session

Moderator

Catherine Taylor, University of Washington

Presenters

Tianshu Pan, Pearson

Labeling Drifting Items Based on the Rasch Model

Judit Antal, The College Board, Gerald Melican, The College Board, Thomas Proctor, The College Board, Andrew Wiley, The College Board

The Effect of Anchor Test Construction on Scale Drift

Huijuan Meng, Pearson, Susan Steinkamp, Pearson, Joy Matthews-López, the National Association of Boards of Pharmacy

An Investigation of Item Parameter Drift in a Computer Adaptive Test

Justin Green, University of South Carolina, Brian Habing, University of South Carolina, Jessalyn Smith, University of South Carolina

A Comparison of the Robust Z and Chi-Square Methods for Item Drift Detection

Discussant

Lisa Keller, University of Massachusetts–Amherst

Denver, Colorado

Monday, 12:25 p.m. – 1:55 p.m., Silver Room, L4

Issues in Linking and Equating – Paper Session

Moderator

Yeow Thum, Northwest Evaluation Association

Presenters

Samuel A. Livingston, Educational Testing Service, Sooyeon Kim, Educational Testing Service

Random-Groups Equating with Small Samples

Hyeon-Joo Oh, Educational Testing Service, Tim Moses, Educational Testing Service

Comparison of Angoff and Kolen-Brennan Approaches in Conducting Chained Equipercentile Equating

Dong Gi Seo, University of Minnesota, David Weiss, University of Minnesota, Yi Du, Data Recognition Corporation

Simulation Designs and Test Information Criterion to Evaluate Various IRT Linkings in Computerized Adaptive Testing

Eunjung Lee, University of Iowa, Won-Chan Lee, University of Iowa, Robert Brennan, University of Iowa

Assessing the Equating Results Based on Equity Properties

Discussant

Alina A. von Davier, Educational Testing Service

NCME • 2010 Annual Meeting & Training Sessions

Monday, 12:25 p.m. – 1:55 p.m., Savoy Room, L5

Test Use with Special Populations – Paper Session

Moderator

Kelly Burling, Pearson

Presenters

Jaime Cid, Educational Testing Service, Dena Pastor, James Madison University, Joshua Goodman, James Madison University

Using Explanatory Item Response Models to Examine the Impact of Linguistic Features of a Reading Comprehension Test on English Language Learners

Joseph Nese, University of Oregon, Daniel Anderson, University of Oregon, Gerald Tindal, University of Oregon

The Invariance of the Easy CBM Mathematics Measures Across Educational Setting, Language, and Ethnic Groups

Adisack Nhouyvanisvong, Data Recognition Corporation, Xiaowen Zhu, Data Recognition Corporation, Hanwook Yoo, University of Massachusetts, N. Scott Bishop, Data Recognition Corporation, Takeshi Terada, University of Minnesota
Building a Modified Assessment for NCLB: Practical Research Issues Addressed by One State Program

Eric Hansen, Educational Testing Service, Diego Zapata-Rivera, Educational Testing Service

Designing Assessment-for-Learning (AfL) Systems for Diverse Students: A Game-Based AfL for Learning Middle School Mathematics

Discussant

John Olson, Olson Educational Measurement & Assessment Services

Denver, Colorado

Monday, 12:25 p.m. – 1:55 p.m., Majestic Ballroom, L6

Item/Task Modeling and Analysis: From Theory to Practice – Coordinated Session

Organizer/Moderator

James Olsen, Alpine Testing Solutions

Presenters

Kathleen Scalise, University of Oregon, Mark Wilson, University of California–Berkeley

Examining Student Reasoning with Bundle Models in Criterion-Referenced Assessment

James Masters, Pearson-VUE, Richard Luecht, University of North Carolina at Greensboro

Assessment Engineering Quality Assurance Steps: Analyzing Sources of Variation in Task Models and Templates

Hanneke Geerlings, University of Twente, Cees Glas, University of Twente, Wim van der Linden, CTB/McGraw-Hill

Optimal Design of Tests with Automatic Item Generation

James Olsen, Alpine Testing Solutions, Joseph Olsen, Brigham Young University, Russell Smith, Alpine Testing Solutions

Investigating Alternative Approaches for Analyzing Item/Task Model Data

Discussant

Ronald Hambleton, University of Massachusetts–Amherst

NCME • 2010 Annual Meeting & Training Sessions

Monday, 2:15 p.m. – 3:45 p.m., Denver Room, M1

Smoothing Techniques in Equating – Paper Session

Moderator

Qing Yi, Pearson

Presenters

Yi Du, Data Recognition Corporation, Shuqin Tao, Data Recognition Corporation, Christie Plackner, Data Recognition Corporation, Dave Chayer, Data Recognition Corporation

Evaluating Feasibility and Stability of the Traditional Equipercentile, Kernel, and Rasch Equating Methods for a State Alternate Assessment

Haiwen (Henry) Chen, Educational Testing Service

A Comparison between IRT Observed Score Equating and Levine Observed Score Equating

Anthony Albano, University of Minnesota, Tim Moses, Educational Testing Service, Jinghua Liu, Educational Testing Service

The Impact of Loglinear Smoothing on Equating with Structured Data Irregularities

Jaehoon Seol, The University of Iowa, Seonho Shin, Prometric Inc., Shungwon Ro, Prometric, Inc.

Automatic Presmoothing Method Using Cross-Validated Smoothing Splines (CVSS)

Discussant

Dan Eignor, Educational Testing Service

Denver, Colorado

Monday, 2:15 p.m. – 3:45 p.m., Century Room, M2

Issues with Dimensionality – Paper Session

Moderator

Prathiba Natesan, University of North Texas

Presenters

Shun-Wen Chang, National Taiwan Normal University, Shin Teng, National Yang-Ming University, Yu-Te Wu, National Yang-Ming University

Explorations of Composite Scores under the Multivariate Proficiency Distribution Using IRT

Nilufer Kahraman, National Board of Medical Examiners

Within-Item Multidimensionality in Unidimensional Tests

Taehoon Kang, Sungshin Women's University, Insu Paek, Educational Testing Service

Providing Both Overall and Domain Scores Based on MIRT

Shu-Chuan Kao, Pearson, Yeow Meng Thum, Northwest Evaluation Association

Characterizing the Dimensionality of a Set of Random Variables: A Strategy to Analyze Factor Structures

Discussant

Andreas Oranje, Educational Testing Service

NCME • 2010 Annual Meeting & Training Sessions

Monday, 2:15 p.m. – 3:45 p.m., Gold Room, M3

Precision of Ability Estimates – Paper Session

Moderator

Zhen (Jane) Wang, *Educational Testing Service*

Presenters

Benjamin Andrews, University of Iowa, Michael Kolen, University of Iowa, Won-Chan Lee, University of Iowa

Measurement Error Variability for Advanced Placement (AP) Composite Scores and Grades

Huiqin Hu, Data Recognition Corporation

Conditional Standard Errors of Measurement for Scaled Scores at the Lower End of Score Distribution: A Comparison of Four Estimation Methods

Jason Meyers, Pearson, Ahmet Turhan, Pearson, Steven Fitzpatrick, Pearson
Performance of Ability Estimation Methods for Writing Assessments under Conditions of Multidimensionality

Christopher Stephens, University of Iowa, Won-Chan Lee, University of Iowa
Psychometric Properties of Scale Scores For Tests with Solely Polytomous Items

Discussant

Gunter Maris, *Cito*

Denver, Colorado

Monday, 2:15 p.m. – 3:45 p.m., Silver Room, M4

New Directions in Model Based Measurement of Mathematical Skills – Coordinated Session

Organizer

Johannes Hartig, German Institute for International Educational Research – DIPF

Moderator

Eckhard Klieme, German Institute for International Educational Research – DIPF

Presenters

Olga Kunina, Humboldt University–Berlin, André Rupp, University of Maryland, Oliver Wilhelm, Humboldt University–Berlin

Modeling the Latent Structure of a Diagnostic Mathematics Assessment within a General Log-Linear Modeling Framework

Johannes Hartig, German Institute for International Educational Research (DIPF), Karina Greb, German Institute for International Educational Research (DIPF)

A Partially Non-Compensatory Multidimensional Model for Basic Mathematical Skills in Primary School

Andreas Frey, Leibniz-Institute for Science and Mathematics Education (IPN), Nicki-Nils Seitz, Leibniz-Institute for Science and Mathematics Education (IPN)

Measuring Multiple Mathematical Skills with Multidimensional Adaptive Testing

Heinz Holling, Westfaelische Wilhelms-Universitaet Muenster, Wim van der Linden, CTB/McGraw-Hill

Rule-Based Generation of Items for the Assessment of Statistical Literacy

Discussant

Karen Draney, University of California–Berkeley

NCME • 2010 Annual Meeting & Training Sessions

Monday, 2:15 p.m. – 3:45 p.m., Savoy Room, M5

Studies of Raters and Ratings – Paper Session

Moderator

Meagan Karvonen, Western Carolina University

Presenters

Mark Raymond, National Board of Medical Examiners, Polina Harik, National Board of Medical Examiners, Brian Clauser, National Board of Medical Examiners

The Impact of Statistically Adjusting for Rater Effects on Conditional Standard Errors for Performance Ratings

Jisung Cha, Teachers College–Columbia University, Matthew Johnson, Teachers College–Columbia University

An Application of Latent Class Regression to Constructed Response Scoring

Polina Harik, National Board of Medical Examiners, Brian Clauser, National Board of Medical Examiners, Peter Baldwin, National Board of Medical Examiners

A Comparison of Alternative Scoring Methods for a Computerized Performance Assessment of Clinical Judgment

Lidia Dobria, University of Illinois at Chicago, Carol Myford, University of Illinois at Chicago

A Multilevel Approach to Detecting Variations in Rater Severity Based on Rater Background Characteristics

Discussant

Sheryl Lazarus, National Center on Educational Outcomes

Denver, Colorado

Monday, 2:15 p.m. – 3:45 p.m., Majestic Ballroom, M6

Issues in Validity – Paper Session

Moderator

Eileen Talento-Miller, Graduate Management Admission Council

Presenters

Gregory Cizek, University of North Carolina at Chapel Hill, Daniel Bowen, University of North Carolina at Chapel Hill, Keri Church, University of North Carolina at Chapel Hill

Sources of Validity Evidence for Educational and Psychological Tests: A Follow-Up Study

Noreen Webb, University of California–Los Angeles, Marsha Ing, University of California–Riverside, Jeffrey Shih, University of Nevada–Las Vegas

Validity of Observational Measures of Classroom Practices: Class-Level vs. Student-Level Protocols

Martha Koch, University of Ottawa

The Multiple-Use of Large-Scale Assessments: Implications for Validity Theory & Practice

Carole Gallagher, WestEd, Edynn Sato, WestEd, Stanley Rabinowitz, WestEd
A Framework for Examining Evidence Related to the Consequential Validity of Standards-Based Assessments

Discussant

Susan Brookhart, Brookhart Enterprises, LLC

NCME • 2010 Annual Meeting & Training Sessions

Monday, 4:05 p.m. – 6:05 p.m., Denver Room, N1

Cognitive Interviews in the Item Design Process for Assessments with Modified Achievement Standards – Coordinated Session

Organizers

*Kelly Burling, Pearson,
Patricia Almond, University of Oregon*

Moderator

Kelly Burling, Pearson

Presenters

Patricia Almond, University of Oregon, Cara Laitusis, Educational Testing Service, Sheryl Lazarus, National Center on Educational Outcomes, Katherine Nagle, SRI International, Andrew Roach, Georgia State University

White Paper on Cognitive Interview Methods Applied to Reading Test and Item Design and Development for Alternate Assessments Judged against Modified Achievement Standards

Kelly Burling, Pearson, Robert Dolan, Pearson

Using Cognitive Interviews to Design Instructionally Relevant Simplifications and Supports for an Interactive Computer-Based AA-MAS

Maureen Kavanagh, Boston College, Caroline Parker, Educational Development Center, Inc.

Cognitive Interviews with Students with Disabilities in High School: Methods and Challenges

Chris Johnstone, National Center on Educational Outcomes

Understanding Construct-Relevant and Construct-Irrelevant Challenges Using Think Aloud Methods

Edynn Sato, WestEd

Cognitive Interviews of English Language Learners and Students with Disabilities: Similarities, Differences and Implications of Lessons Learned

Denver, Colorado

Monday, 4:05 p.m. – 6:05 p.m., Century Room, N2

IRT Equating – Paper Session

Moderator

Michael Mekhail, Educational Testing Service

Presenters

Thakur Karkee, Measurement Incorporated, Stephen Murphy, Pearson, Kevin Fatica, CTB/McGraw-Hill

Comparisons of Test Characteristic Curves Alignment Criteria of the Anchor Sets and the Total Test for Maintaining Test Scale and Impact on Students' Performance

Deping Li, Educational Testing Service, Yanlin Jiang, Educational Testing Service, Alina von Davier, Educational Testing Service

The Consistency of IRT True Score Equatings

Alan W. Nicewander, Pacific Metrics

IRT Equating Using Parameterized Test Characteristic Curves

Dongyang Li, Prometric, Shungwon Ro, Prometric

Score Equating for a Certification Examination using a Testlet Model Based Characteristic Curve Scaling Method

Discussant

Rosemary Reshetar, The College Board

NCME • 2010 Annual Meeting & Training Sessions

Monday, 4:05 p.m. – 6:05 p.m., Gold Room, N3

Evaluating Anchor Items – Paper Session

Moderator

Andrew Dwyer, University of Nebraska–Lincoln

Presenters

Terran Brown, Educational Testing Service, Kisha Jones, University of Illinois at Urbana-Champaign, Gautam Puhan, Educational Testing Service

The Robustness of Methods to Detect Outliers within Equating Sets in the Context of Observed Score Equating

Yanxuan Qu, Educational Testing Service, Chi-wen Liao, Educational Testing Service, Rick Morgan, Educational Testing Service

Evaluating Anchor Item Performance in Classic Equating – An Illustration of the Four Commonly used Methods and their Impact on Equating Results

Lixiong Gu, Educational Testing Service, Venessa Lall, Educational Testing Service, Lora Monfils, Educational Testing Service, Yanming Jiang, Educational Testing Service

Evaluating Anchor Items for Outliers in IRT Common Item Equating: A Review of the Commonly Used Methods and Flagging Criteria

Chанho Park, ACT, Inc.

The Effects of Item Disclosure on IRT Linking via Item Parameter Drift

Lisa Keller, University of Massachusetts, Karla Egan, CTB/McGraw-Hill, Christine Schneider, CTB/McGraw-Hill

Detecting and Deleting Anchor Set Items: Guidelines and Consequences

Discussant

Judit Antal, The College Board

Denver, Colorado

Monday, 4:05 p.m. – 6:05 p.m., Silver Room, N4

Measurement in Higher Education – Invited Symposium

Organizer/Moderator

Donna Sundre, James Madison University

Presenters

Peter Ewell, National Center for Higher Education Management Systems
Higher Education's Big Test: The Collision between Politics and Assessment

Gary Pike, Information Management & Institutional Research, IUPUI
New and Old Wine in New Bottles: 20 Years of Assessing College Student Learning

Richard Shavelson, Stanford University
On Direct and Indirect Measures of College Learning: The CLA & Other Approaches

Donna Sundre, James Madison University
Measurement Matters

Tom Zane, Western Governors University
A Radical Model of Higher Education where Measurement Governs Curriculum

Discussant

Lorrie Shepard, University of Colorado at Boulder

NCME • 2010 Annual Meeting & Training Sessions

Monday, 4:05 p.m. – 6:05 p.m., Savoy Room, N5

Multidimensional Random Item Profile Models: Models, Applications, and Parameter Estimation – Coordinated Session

Organizer/Moderator

Sun-Joo Cho, Vanderbilt University

Presenters

Paul De Boeck, University of Amsterdam, Mark Wilson, University of California–Berkeley

Multidimensional Random Item Profile Models

Shih-Ying Yao, University of California–Berkeley, Mark Wilson, University of California–Berkeley

Random Item Profile Modeling of DIF

Jinnie Choi, University of California–Berkeley, Jing Chen, Michigan State University

Random Item Profile Modeling of Polytomous Responses

Sun-Joo Cho, Vanderbilt University, Ivalilo Partchev, K.U. Leuven

Parameter Estimation of Multidimensional Random Item Profile Models

Discussant

Daniel Bolt, University of Wisconsin–Madison

Denver, Colorado

Monday, 4:05 p.m. – 6:05 p.m., Majestic Ballroom, N6

Issues with Anchor Items in Equating – Paper Session

Moderator

Ourania Rotou, Educational Testing Service

Presenters

YoungWoo Cho, ACT, Inc., Nathan Wall, ACT, Inc., Won-Chan Lee, The University of Iowa, Deborah Harris, ACT, Inc.

The Effects of Common Item Selection on Equipercentile Equating for Mixed Format Tests

Tia Sukin, University of Massachusetts–Amherst, Jennifer Dunn, Measured Progress, Wonsuk Kim, Measured Progress, Robert Keller, Measured Progress
A Balancing Act: Common Items Nonequivalent Groups (CINEG) Equating Item Selection

William Insko, Riverside Publishing Company

The Effect of Anchor Item Stability on Known Levels of Proficiency Rate Improvement Using Simulation Techniques

J. Patrick Meyer, University of Virginia, Huynh Huynh, University of South Carolina

Evaluation of the Robust z Method of Identifying Unstable Items and Estimating IRT Equating Coefficients

Hua Wei, Pearson

Impact of Non-Representative Anchor Items on Scale Stability

Discussant

Michael Walker, Educational Testing Service

NCME • 2010 Annual Meeting & Training Sessions

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

NCME Board of Directors Meeting

Members of NCME are invited to attend as observers.

Denver, Colorado

Index to Sessions for Program Participants

A

Abry, Tashia D.S.	77
Ackerman, Terry A.	24, 52, 76
Ahn, Soyeon	79
Albano, Anthony	17, 100
Alexeev, Natalia	40, 92
Allalouf, Avi	9, 26
Allen, Gary	49
Almond, Patricia	27, 106
Almond, Russell G.	18
Anderson, Daniel	98
Andrade, Gilbert	17
Andrews, Benjamin	102
Ansley, Timothy	55
Antal, Judit	96, 108
Arce-Ferrer, Alvaro	55, 88
Armstrong, Ron	69, 94
Arter, Judith	48
Atwood, Charles	61

B

Badgett, Barbara	39
Baker, Eva	82
Baldwin, Peter	29, 34, 93, 104
Baldwin, Su	29, 93
Barrada, Juan	66
Barry, Carol L.	77
Barton, Karen	63
Bay, Luz	64
Beaulieu, Nicole	56
Bechard, Sue	27, 35
Becker, Kirk	75, 78
Béguin, Anton	87
Beimers, Jennifer	85
Bejar, Isaac	83
Belov, Dmitry	94
Bennett, Randy	26
Beretvas, S. Natasha	74, 77, 79
Betebenner, Damian	9, 46
Betts, Joseph	31, 46
Bishop, Kyoungwon	70
Bishop, N. Scott	55, 70, 98
Bolt, Daniel	34, 61, 79, 84, 90, 110
Bontempo, Brian	66
Booren, Leslie M.	77
Boughton, Keith	23

Bowen, Daniel	41, 105
Brandt, Steffen	60
Braun, Henry	26
Breithaupt, Krista	73, 83
Brennan, Robert	12, 38, 58, 64, 76, 97

Briggs, Derek	84
Brittingham, Peter	83
Brookhart, Susan	105
Broomes, Orlena	92
Brown, Allison R.	77
Brown, Terran	32, 108
Bruce, Wes	50
Buckendahl, Chad	27, 39, 72
Burke, Matthew	28-29, 75
Burling, Kelly	98, 106
Burton, Liz	93

C

Cadle, Adrienne	49
Cai, Li	88, 90
Camara, Wayne	50, 82
Camilli, Gregory	37, 69
Casabianca, Jodi	29, 43
Cawthon, Stephanie	79
Cha, Jisung	104
Chajewski, Michael	59
Chang, Hua-Hua	24, 31, 37, 86
Chang, Shun-Wen	101
Chayer, Dave	100
Chen, Cheng-Te	41
Chen, Fang	53
Chen, Haiwen (Henry)	100
Chen, Jing	110
Chen, Po-Hsi	31
Chen, Qing	24
Chen, Tzu-An Ann	77
Cheng, Ying	24, 67, 80
Chien, Yuehmei	89
Childs, Ruth	74, 92
Chiu, Chia-Yi	44, 61
Chiu, Pui Chi	33
Chiu, Ting-Wei	37
Cho, Kyunghwa	60
Cho, Sun-Joo	11, 29, 40, 110
Cho, YoungWoo	111
Choi, Hye-Jeong	47, 61

NCME • 2010 Annual Meeting & Training Sessions

Choi, Jinnie	110	Dwyer, Andrew	53, 108
Choi, Youn-jeng	40		
Choi, Younyoung	37	E	
Chon, Kyong Hee	32	Egan, Karla	63, 108
Chung, Hyewon	36	Eignor, Dan	93, 100
Chungbaek, Youngyun	62	Embretnson, Susan	47, 79
Church, Keri	105	Ercikan, Kadriye	41, 71
Cid, Jaime	98	Ewell, Peter	109
Cizek, Gregory	39, 105		
Clauser, Brian	83, 104	F	
Cohen, Allan	40, 54, 61, 92	Fan, Meichu	32
Cohen, Yoav	26	Fang, Yu	90
Cook, Robert	93	Fast, Michael	91
Corkill, Alice	39	Fatica, Kevin	107
Corter, James	47	Featherman, Carol	
Crouse, Jill	30	Morrison	85
D		Feinberg, Richard A.	77, 83
D'Agostino, Jerome	78	Ferrara, Steve	28, 45
Dai, Yunyun	92	Fina, Anthony	36
Dallas, Andrew	28, 61	Finney, Sara J.	77
Davey, Tim	49, 75	Fitzpatrick, Steven	102
Davis, Susan	39	Foley, Brett	40, 53
De Boeck, Paul	110	Forgione, Pascal	50
De Carlo, Lawrence T.	80	Forte, Ellen	27
de la Torre, Jimmy	10, 13, 29, 47, 61	Fortus, Ruth	9
DeMars, Christine	43	French, Brian F.	77, 80, 81
Denbleyker, John	70	Frey, Andreas	103
Deng, Nina	43	Fu, Jianbin	88
Diakow, Ronli	77	Furgol, Katherine	46
Diao, Qi	73	G	
DiBello, Lou	23	Gaertner, Matthew	84
Ding, Shu-Liang	24	Gallagher, Carole	89, 105
Dings, Jonathan	23	Gallant, Dorinda	71
Dobria, Lidia	104	Gao, Furong	23
Dodd, Barbara G.	78	Geerlings, Hanneke	99
Dolan, Robert	57, 106	Gessaroli, Marc	67
Domingue, Ben	84	Gierl, Mark	28
Donahue, Barbara	87	Glas, Cees	87, 99
Donahue, Patricia	56	Glasnapp, Douglas	46
Donoghue, John	73	Goldhammer, Frank	54, 95
Dorans, Neil	30, 39	Gong, Brian	50
Downer, Jason T.	77	Gong, Jin	80
Draney, Karen	65, 103	Gonzalez, Eugene	43
Du, Yi	69, 97, 100	Goodman, Joshua	62, 75, 78, 98
Dubas, Ulana	83	Gorham, Jerry	57
Dunn, Jennifer	93, 111	Gorin, Joanna	35
Duong, Minh	90	Gotch, Chad	77
		Gotzmann, Andrea	44

Denver, Colorado

Grabovsky, Irina	71	Hoegh, Jan	72
Grady, Matthew	23, 78	Holling, Heinz	103
Grann, Jeff	27	Hollingworth, Liz	36
Greb, Karina	103	Hong, Jiao	31
Green, Justin	96	Hong, Kim Do	44
Green, Kathy	49	Hong, Yuan	29
Gu, Lixiong	95, 108	Hornke, Lutz	82
Guo, Fanmin	49, 62, 66, 86	Horst, S. Jeanne	77
Guo, Hongwen	49, 62	Hou, Xiaodong	54
Guo, Ying	86	Hsieh, Chueh-An	46, 78
Gushta, Matthew	37	Hu, Huiqin	102
		Huang, Hung-Yu	31
		Huang, Sui	78
H		Huebner, Alan	47
Habing, Brian	22, 69, 95-96	Huff, Kristen	28, 38, 49
Haertel, Geneva	38	Huggins, Anne Corinne	78
Hagge, Sarah	77	Huh, NooRee	53
Haladyna, Thomas	17	Huynh, Huynh	18, 44, 111
Hambleton, Ron	26, 76, 79, 99		
Hamilton, Laura	45		
Hamilton, Linda	11	I	
Han, Jung A.	80	Ing, Marsha	105
Han, Kyung (Chris)	66, 73, 86	Ingrisone, James	54
Hansen, Eric	63, 98	Ingrisone, Soo	54
Hansen, Mark	88, 90	Insko, William	111
Hansen, Mary	85	Irribarra, David Torres	77
Hare, Donovan	73	Irwin, Patrick,	33
Harik, Polina	83, 104	Ito, Kyoko	66
Harkins, Kristin	80	Iyioke, Ifeoma	94
Harmes, J. Christine	75	Izard, Susan	14
Harris, Deborah	15, 32, 53, 68, 111		
		J	
Harris, Lisa	21	Jacobs, Brenda	15
Hartig, Johannes	60, 103	Jehly, Andrea L.	78
Hau, Kit-Tai	24	Jeon, Minjeong	74
Hauser, Carl	33	Jia, Yue	43, 56, 70
Hawkins, Lindsay	39	Jiang, Yanlin	107
He, Qingping	55	Jiang, Yanming	32, 108
He, Wei	86	Jiao, Hong	65, 68-69, 79, 92
Heh, Peter	85	Jin, Yiming	44
Hembry, Ian	49	Jin, Ying	68
Henderson-Montero, Dianne	17, 64, 72	Jodoin, Michael	34
Hendrickson, Amy	49	Johnson, Matthew	47, 92, 104
Hendrix, Leslie	22	Johnstone, Chris	106
Henson, Robert	10, 13	Joldersma, Kevin	41, 74
Henson, Robin	31	Jones, Kisha	108
Herbert, Monique	92	Jonson, Jessica L.	14
Herman, Joan	45	Jung, Jiyoung	78
Ho, Andrew	15	Jurich, Daniel P.	78

NCME • 2010 Annual Meeting & Training Sessions

K

Kahl, Stuart R.	19
Kahraman, Nilufer	77, 101
Kaira, Leah	36
Kalinowski, Kevin	31
Kamata, Akihito	60, 74
Kane, Michael	58
Kang, Taehoon	101
Kao, Shu-Chuan	101
Karkee, Thakur	107
Karlawish, Jason	80
Karvonen, Meagan	27, 104
Kato, Kentaro	63
Katz, Irvin	85
Kavanaugh, Maureen	106
Kaye, Alyssa	79
Keller, Lisa	29, 71, 93, 96, 108
Keller, Robert	93, 111
Kim, Do-Hong	18, 44
Kim, Dong-In	23
Kim, Gee Hune	67
Kim, Jiseon	36, 78
Kim, Kyung-Sung	85
Kim, Seock-Ho	15, 29
Kim, Sooyeon	53, 97
Kim, Sungyeun	69
Kim, Sunhee	69
Kim, Wonsuk	111
Kim, Yeonjeong	69
Kim, Young Yee	11
Kingsbury, G.	33
Kingston, Neal	33, 54
Kirkpatrick, Robert	32
Klieme, Eckhard	103
Klinger, Don	72
Knupp, Tawnya	55
Koch, Martha	105
Koenig, Judith	59
Kolen, Michael	12, 30, 34, 45, 58, 62, 79, 102
Kolstad, Andrew	11
Kopp, Jason P.	77
Kostin, Irene	36
Kung, Mabel	69
Kunina, Olga	103
Kyllonen, Patrick C.	16, 36, 82

L

Lai, Hollis	28, 78
Laitusis, Cara	106
Lakin, Joni M.	79
Lall, Venessa	108
Lam, Tony	49
Lam, Tsz Cheung	29
Lam, Wendy	77
Lane, Suzanne	50
Lang, Laura B.	78
Langer, Michelle	74
Lau, Abigail	40
LaVenia, Kristina	78
LaVenia, Mark	78
Lawrence, Ida	41
Lazarus, Sheryl	104, 106
Lazendic, Goran	70
Lee, Eunjung	79, 97
Lee, Guemin	32, 69, 78-80, 85
Lee, Hee-Sun	27
Lee, Moonsoo	78, 79
Lee, Myung-Suk	85
Lee, Okhee	79
Lee, Seung-Jin	60
Lee, Won-Chan	32, 55, 79, 97, 102, 111
Lee, Yi-Hsuan	49
Lee, Yoonsun	41
Lee, Young-Sun	40, 47, 67
Lei, Pui-Wa	43
Lei, Xin-Yong	24
Leighton, Jacqueline	28
Lejeune, Andrew	44
Levy, Roy	95
Lewis, Charles	34, 43
Lewis, Daniel	23, 64, 85
Li, Deping	107
Li, Dongyang	107
Li, Feifei	62, 65
Li, Feiming	54, 74
Li, Jun	71
Li, Tan	95
Li, Xin	57
Li, Ying	69, 79
Liang, Longjuan	39, 53
Liao, Chi-wen	108
Lim, Yeongyu	79
Lin, Anli	70

Denver, Colorado

Lin, Chow-Hong	32	McClellan, Catherine	83
Lin, Mei-Jang	70	McDivitt, Patricia	35
Lin, Peng	84	McJunkin, Linette	46
Ling, Guangming	59, 88	Meckes, Lorena	91
Linn, Marcia	27	Mehrens, William	76
Linn, Robert	50, 76	Mekhael, Michael	107
Lissitz, Robert	65, 84	Melican, Gerald	70, 96
Little, Ian	32, 89	Meng, Huijuan	96
Liu, Chen-Wei	57	Meng, Yu	79
Liu, Chunyan	34, 67, 79	Meyer, Patrick J.	77, 111
Liu, Hong-Yun	24	Meyers, Jason	102
Liu, Jinghua	30, 100	Michel, Rochelle	59
Liu, Junhui	22	Miles, Julie	39, 85
Liu, Ou Lydia	27	Mislevy, Jessica	60
Liu, Qian	74	Mislevy, Robert	18, 38, 62, 92
Liu, Wei Cheng	80	Mittelhaëuser, Marie-Anne	87
Liu, Yuming	68	Mitzel, Howard	57
Livingston, Samuel A.	97	Miyazaki, Yasuo	43, 62
Lockhart, III, L. Leland	79	Monfils, Lora	108
Lohman, David	82	Monpas-Huber, Jack	48
Lonczak, Tyler	93	Moran, Rebecca	56
Loomis, Susan	89	Morgan, Rick	108
Lottridge, Susan M.	57	Moses, Tim	30, 53, 97, 100
Lu, Ru	31	Moss, Pamela	48
Lu, Ting	94	Murphy, Stephen	32, 37, 107
Lu, Yang	90	Murray, Constance	83
Lu, Ying	49	Myers, Nicholas	79
Luecht, Richard	21, 28, 75, 83, 99	Myford, Carol	104
Lyon, Steven	85	N	
M		Nagle, Katherine	106
Ma, Lingling	33	Nandakumar, Ratna	77, 80
MacDonald, George	77	Natesan, Prathiba	101
MacEachern, Steven N.	80	Nese, Joseph	98
MacQuarrie, Duncan	25	Newton, Joseph	79, 90
Macready, George	65	Nhouyvanisvong, Adisack	57, 98
Maerten-Rivera, Jaime	79	Nicewander, Alan W.	57, 62, 107
Maris, Gunter	102	Nichols, Paul	55, 64
Marr, Diana	63	Nogami, Yasuko	66
Martineau, Joseph	25, 84	O	
Martinez, Carlos	42	O'Brien, Jo	42
Martiniello, Maria	36	Ogut, Burhan	11
Masters, James	99	Oh, Hyeon-Joo	97
Matthews-López, Joy	96	Oliveri, Maria-Elena	59
Maughan, Sarah	55	Olsen, James	86, 99
Mazzeo, John	56, 72	Olsen, Joseph	99
Mbella, Kinge	93	Olsen, Robert (Bob) M.	25
McCall, Marty	48	Olson, John	98

NCME • 2010 Annual Meeting & Training Sessions

Ong, Saw Lan	63	Raymond, Mark	104
Oranje, Andreas	56, 101	Reckase, Mark	59, 84, 86, 90
Ordoñez, Xavier	61, 94	Reshetar, Rosemary	107
Orr, Cornelia	42	Rijmen, Frank	74, 84
		Rindone, Douglas	17, 25
		Rivera, Charlene	42
P			
Paek, Insu	40, 89, 101	Ro, Shungwon	100, 107
Paek, Pamela	70	Roach, Andrew	106
Pak, Seohong	32	Roberts, Mary Roduta	21, 44, 77
Pan, Tianshu	96	Roberts, Richard D.	16
Park, Chanho	108	Rodeck, Elaine	83
Park, In-Yong	80, 85	Rodriguez, Michael	17, 67, 91
Park, Yeonbok	85	Rogers, H. Jane	93
Park, Yoon Soo	40, 67, 80	Rogers, Todd	72
Parker, Caroline	35, 106	Romero, Sonia	61, 94
Parshall, Cynthia	75	Roschewski, Pat	25
Partchev, Ivalo	110	Rose-Bond, Sherry	14
Pashley, Peter	33	Rotou, Ourania	111
Pastor, Dena	27, 40, 92, 98	Roussos, Louis	95
Patelis, Thanos	26	Roxbury, Tiese	53
Patton, Jeffrey M.	80	Rubio, Fernando	91
Payne-Lewis, Julia	19	Rubright, Jonathan D.	80
Pei, Lai Kwan	59, 71	Rudner, Larry	83
Pellegrino, Jim	38	Rudner, Lawrence	73
Penfield, Randall	41, 71, 79	Rupp, Andre	37, 47, 103
Penn, Jeremy	14, 36	Rwhilhelm, Oliver	103
Perkins, Aminah	77	Ryan, Joseph	12
Petersen, Nancy	30		
Phillips, Gary	17	S	
Picket, Wendy	25	Sanchez, Pedro	36
Pike, Gary	109	Sanclemente, Julio	15
Pinus, Diana Alderoqui	26	Santelices, Veronica	82
Plackner, Christie	100	Sass, Daniel	61
Plake, Barbara	45, 76	Sato, Edynn	105-106
Poggio, John	46-47, 79	Scalise, Kathleen	21, 57, 99
Pommerich, Mary	30	Schafer, William	72
Ponsoda, Vicente	61	Schneider, Christine	63, 108
Proctor, Thomas	96	Schwarz, Richard	67
Prosser, Rachel	49	Schweid, Jason	80
Puhan, Gautam	39, 108	Sconing, Jim	30
Putz, Daniel	82	Scrams, David	33
		Sculthorp, Stacy	27
Q		Searcy, Cynthia	39
Qian, Jiahe	70, 95	Segall, Daniel	66
Qu, Yanxuan	88, 108	Seitz, Nicki-Nils	103
		Sen, Rohini	93
R		Seo, Daeryong	89
Rabinowitz, Stanley	35, 105	Seo, Dong Gi	97
Randall, Jennifer	36	Seo, Minhee	44

Denver, Colorado

Seol, Jaehoon	100	T	
Seybert, Jacob	71	Talento-Miller, Eileen	66, 105
Sgammato, Adrienne	56	Tannenbaum, Richard	85
Shakrani, Sharif	42	Tanner, John	50
Shavelson, Richard	109	Tao, Jian	37
Sheehan, Kathleen	38	Tao, Shuqin	100
Shen, Linjun	54	Taylor, Catherine	41, 48, 96
Sheng, Yanyan	11, 37	Taylor, Melinda	27
Shepard, Lorrie	48, 76, 109	Templin, Jonathan	10, 13, 33, 61, 65, 92
Shi, Ning-Zhong	37	Teng, Shin	101
Shih, Jeffrey	105	Terada, Takeshi	98
Shin, Chingwei	37, 89	Thum, Yeow	68, 97, 101
Shin, MinJeong	80	Thurlow, Martha	63
Shin, Seon-Hi	46	Tindal, Gerald	98
Shin, Seonho	100	Tomkowicz, Joanna	68
Shu, Lianghua	67	Tong, Ye	34, 62
Shu, Zhan	28, 29, 47, 75	Tseng, Huiyun	47
Shultz, Marjorie	82	Tudor, Joshua	80
Sigman, Deb V.H.	42	Turhan, Ahmet	102
Sikali, Emmanuel	11	Tzou, Hueying	85
Sinharay, Sandip	22, 62	U	
Sireci, Stephen G.	36, 80	Um, Kooghyang	63
Skorupski, William	93	V	
Smith, Jessalyn	96	van den Heuvel, Jill	3, 81
Smith, Robert	34	van der Linden, Wim	26, 73, 93, 99, 103
Smith, Russell	94, 99	Van Rijn, Peter	87
Solano-Flores, Guillermo	49, 63	Vanneman, Alan	11
Song, Tian	59	VanWinkle, Waverely	88
Soto, José Luis Gaviria	94	Vaughn, Brandon K.	78
Stark, Stephen	71	Viator, Katherine A.	42
Steinkamp, Susan	96	von Davier, Alina A.	97, 107
Stephens, Christopher	102	von Davier, Matthias	59, 65, 92
Stoica, Wendy McLaughlin	35	W	
Stone, Clement A.	80	Wakeman, Shawnee	27
Store, Davie	61	Walk, Rebecca	14
Stout, William	23	Walker, Cindy	74
Su, Chi-Ming	22	Walker, Michael	53, 111
Su, Ya-Hui	86	Wall, Nathan	86, 111
Sudweeks, Richard	22	Wang, Aijun	54
Suh, Hongwook	80	Wang, Bo	24
Suh, Youngsuk	34	Wang, Chun	31
Sukin, Tia	111	Wang, Hequn	44
Sundre, Donna	109	Wang, Lihshing (Leigh)	55, 90
Sunnassee, Devdass	47		
Svetina, Dubravka	95		
Swaminathan, Hariharan	93		
Swygert, Kimberly	21, 77		

NCME • 2010 Annual Meeting & Training Sessions

Wang, Shudong	32, 65, 68, 89, 92	Y	
Wang, Wen-Chung	22, 31, 41, 57 86	Yan, Duanli Yang, Ji Seung Yang, Na	18, 66 88, 90 22
Wang, Wen-Yi	24	Yao, Lihua	74
Wang, Xinrui	47	Yao, Shih-Ying	110
Wang, Xuan	68	Yen, Shu Jing	46, 62, 68
Wang, Yingchen	53	Yen, Wendy	76
Wang, Zhen (Jane)	89	Yi, Qing	70, 100
Way, Denny	45, 75, 83	Yoo, Hanwook	80, 98
Way, Walter	85	You, Xiao-Feng	24
Webb, Noreen	105	Young, Michael	70
Weeks, Jonathan	84	Yu, Lei	86
Wei, Hua	111	Yuan, Ke-Hai	67
Weiss, David	97		
Welch, Catherine	49	Z	
Wells, Craig	60, 71, 79	Zane, Tom	109
Wiley, Andrew	96	Zapata-Rivera, Diego	88, 98
Wilhelm, Oliver	103	Zara, Anthony	66
Willhoft, Joe	21, 25, 72	Zedeck, Sheldon	82
Williamson, David M.	18, 75	Zeng, Ji	84
Wilson, Mark	77, 99, 110	Zhang, Bo	78
Wise, Lauress	45, 56	Zhang, Jinming	94
Wise, Stephen	33	Zhang, Lilly	44, 68
Wolkowitz, Amanda	33	Zhang, Liru	23, 89
Woo, Ada	57	Zhang, Litong	68
Wothke, Werner	40	Zhang, Mo	80
Wu, Hao	80	Zhang, Oliver	73
Wu, Meng	95	Zhang, Yu	39
Wu, Yi-Chen	63, 88	Zhao, Yu	43
Wu, Yi-Fang	85	Zhou, Qun	24
Wu, Yu-Te	101	Zhu, Long-Yin	24
Wylie, Caroline	38	Zhu, Xiaowen	22, 98
Wyse, Adam	84	Zigmond, Naomi	85
		Zwick, Rebecca	44, 88
X			
Xu, Ting	80		
Xu, Xueli	43, 56		
Xu, Zhi-Yong	24		

Denver, Colorado

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