2012 Training Sessions
April 12-13 & 16, 2012

2012 Annual Meeting
April 14-16, 2012

Vancouver, British Columbia, Canada
## NCME Officers

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<th>Role</th>
<th>Name</th>
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<tr>
<td>President</td>
<td>Linda Cook</td>
<td>Educational Testing Service, Princeton, NJ</td>
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<td>Executive Officer</td>
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## NCME Directors

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<td>Sherry Rose-Bond</td>
<td>Columbus City Schools, Columbus, OH</td>
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<td>Michael Rodriguez</td>
<td>University of Minnesota, Minneapolis, MN</td>
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<td>University of British Columbia, Vancouver, BC</td>
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<td>Joseph Martineau</td>
<td>Michigan Department of Education, Lansing, MI</td>
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<td>James Wollack</td>
<td>University of Wisconsin, Madison, WI</td>
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The NCME Information Table is located in Regency Ballroom A Foyer at the Hyatt Regency Hotel. Stop by to pickup a ribbon or obtain your bib number for the fun run and walk!

The information table will be staffed at the following times:

- Thursday, April 12 ...................... 7:00 a.m.-5:00 p.m.
- Friday, April 13 ......................... 7:00 a.m.-5:00 p.m.
- Saturday, April 14 ...................... 7:00 a.m.-5:00 p.m.
- Sunday, April 15 ....................... 7:30 a.m.-5:00 p.m.
- Monday, April 16 ....................... 7:30 a.m.-2:00 p.m.
Proposal Reviewers

Creating a high-quality program would not be possible without the dedicated help of proposal reviewers who we want to thank in particular for their hard work:

Cigdem Alagoz  Gregory J. Cizek  Joshua Goodman  Muhammad Naveed
Anthony Albano  Monica Cuddy  Jerry Gorham  Khalid
Usama Ali  Ying Cui  Joanna S. Gorin  Dong-In Kim
Jessica Allen  Zhongmin Cui  Andrea Gotzmann  Seock-Ho Kim
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Luz Bay  John De Jong  Assunta Hardy  Marc Kroopnick
Sue Bechard  Jimmy De La Torre  Jeff Harring  Olga
Kirk Becker  Christine Demars  Deborah Harris  Kunina-Habenicht
Isaac Bejar  John Denbleyker  Wei He  Emily Lai
Dmitry Belov  Hui Deng  Ian Hembry  Hollis Lai
Anat Ben-Simon  Weiling Deng  Tracey Hembry  Cara Laitusis
Randy Bennett  Craig Deville  Amy Hendrickson  Joni Lakin
Damian Betebenner  Qi Diao  Leslie Hendrix  Michelle LaMar
Brian Bontempo  Kristen DiCerbo  Robert Henson  Moonsoo Lee
Laine Bradshaw  Enis Dogan  Tsung-Han Ho  Sunbok Lee
Steffen Brandt  Robert Dolan  Kirsten Hochstedt  Taehun Lee
Brent Bridgeman  Aaron Douglas  Alan Huebner  Yi-Hsuan Lee
Derek Briggs  Minh Duong  Kristen Huff  Yong-Sang Lee
Chad Buckendahl  Scott Elliot  Anne Corinne  Roy Levy
Okan Bulut  Howard Everson  Huggins  Deping Li
Michael Bunch  Nancy Ewers  Soo Ingrisone  Dongmei Li
Samantha Burg  Yu Fang  Patrick Irwin  Feiming Li
Matthew Burke  Robert Fay  Kyoko Ito  Hongli Li
Heather Buzick  Carol Morrison  Ifeoma Iyiok  Jie Li
Li Cai  Featherman  Hyesuk Jang  Tianli Li
James Carlson  Richard Feinberg  Rianne Janssen  Ying Li
Hua-Hua Chang  Amanda Ferster  Minjeong Jeon  Zhushan Mandy Li
Shu-Ren Chang  Holmes Finch  Yanming Jiang  Chi-Wen Liao
Alex Chavez  Michael S. Finger  Hong Jiao  Euijin Lim
Cong Chen  Brett Foley  Michael Jodoin  Eunyoung Lim
Hsiang-Feng Chen  Chris Foster  Marc Johnson  Haiyan Lin
Pei-Hua Chen  John Fremer  Nilufer Kahraman  Jie Lin
Yi-Hsin Chen  Brian French  Anil Kanjee  Johnny Lin
Liyeng Cheng  Xiaohong Gao  Priya Kannan  Meiko Lin
Ying Cheng  Ardeshir Geranpayeh  Thakur Karkee  Peng Lin
Pui Chi Chiu  Mark Gierl  Meagan Karvonen  Valerie Link
Hye-Jeong Choi  Frank Goldhammer  Elizabeth Keiffer  Todd Little
Jaime Cid  Marna Golub-Smith  Lisa Keller  Jinghua Liu
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(Names continued on the next page.)
Future Annual Meetings

2013 Annual Meeting
   April 26-30
   San Francisco, California

2014 Annual Meeting
   April 2-6
   Philadelphia, Pennsylvania
The 2012 NCME pre-conference training sessions will be held at the Hyatt Regency Hotel on Thursday, April 12, Friday, April 13, 2012, and Monday, April 16, 2012. 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.

On-site registration for the pre-conference training sessions will be available at the Hyatt Regency Hotel for those workshops that still have availability.

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

Thursday, April 12, 2012

Thursday, April 12, 8:00 a.m.-5:00 p.m., Plaza Ballroom A, AA
Bayesian Networks in Educational Assessment
   Russell G. Almond, Florida State University; Robert J. Mislevy, Educational Testing Service; David M. Williamson, Educational Testing Service; Duanli Yan, Educational Testing Service

The Bayesian paradigm provides a convenient mathematical system for reasoning about evidence. Bayesian networks provide a graphical language for describing complex systems, and reasoning about evidence in complex models. This allows assessment designers to build scoring systems that have fidelity to cognitive theories about the domain and yet are mathematically tractable and can be refined with observational data. Topics covered in this tutorial are evidence-centered assessment design, basic Bayesian network representations and computations, available software for manipulating Bayesian networks, refining Bayesian networks using data, and example systems using Bayesian networks. It is recommended that participants bring a laptop to run sample exercises using the student version of Netica (http://www.norsys.com/).
Thursday, April 12, 2012

Thursday, April 12, 8:00 a.m.-5:00 p.m., Georgia Room B, BB
Diagnostic Measurement: Theory, Methods, and Applications
  Laine Bradshaw, James Madison University; Jonathan Templin, University of Georgia

Diagnostic measurement is an emerging field of psychometrics, focused on ascertaining actionable information from tests and assessments. This workshop provides an introduction to the terms, techniques, and common methods used for diagnosing what students know, giving researchers access to a wealth of information that can be used to help design remediation paths for students needing help in a subject area. The course is taught from a semi-technical level, although participants are expected to have only a basic knowledge of statistics and psychometrics to enroll. Participants will be given the opportunities to gain hands-on experience with all aspects of diagnostic models (from test construction to statistical estimation, which is better facilitated by the use of laptop computers.

Thursday, April 12, 8:00 a.m.-5:00 p.m., Georgia Room A, CC
Cognitive Diagnosis Modeling: A General Framework Approach
  Jimmy de la Torre, Rutgers, The State University of New Jersey; Chia-Yi Chiu, Rutgers, The State University of New Jersey; Jinsong Chen, Rutgers, The State University of New Jersey

The primary aim of cognitive diagnosis is to develop and analyze assessments that provide information with more diagnostic value compared to traditional approaches. Its main objective is to identify individual students’ specific strengths and weaknesses in a particular domain. Using a general framework, this workshop aims to provide both the theoretical underpinnings and practical experience necessary for participants to use cognitive diagnosis modeling (CDM) in applied settings.

The theoretical component of the workshop will provide participants a comprehensive overview of CDM. Topics covered will include an introduction to the CDM paradigm and how it differs from traditional unidimensional frameworks, some commonly used cognitive diagnosis models and their relationships to each other, estimation of model parameters, evaluation of model-data fit, and model comparison and selection. The practical component of the training session will provide participants a hands-on experience on the different aspects of CDM through various exercises. Participants will learn how to identify and validate attributes, run and interpret result of codes for CDM, evaluate the appropriateness of cognitive diagnosis models, and empirically validate Q-matrices.
Assessing 21st Century Skills


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

- 21st century skills (21CS) frameworks, models, and theories
- Aligning common core state standards
- 21CS in higher education and the workforce
- Assessment methods (e.g., self-, others’ ratings, situational judgment tests, anchoring vignettes, simulations)
- Preventing, detecting, and correcting for coaching, faking, and miscalibration
- Delivery platforms
- Psychometrics (factor analysis, polytomous IRT, measurement invariance, multilevel analyses, rank and choice methods)
- Special topics (creativity assessment, collaborative problem solving, cross-cultural assessment issues)
- Secondary analysis with large-scale assessments (e.g., PISA)
- Example assessments (21CS development for community college; open-ended collaborative problem solving, institutional monitoring for K-12; higher education admissions)
Thursday, April 12, 2012

Thursday, April 12, 8:00 a.m.-5:00 p.m., Plaza Ballroom C, FF
Multidimensional Item Response Theory: Theory and Applications and BMIRT, LinkMIRT, and SimuMIRT Software
   Lihua Yao, Defense Manpower Data Center; Mark Reckase, Michigan State University; Yuan Hong, American Institutes for Research; Ying Cheng, University of Notre Dame

Theories and applications of the multidimensional item response theory model (MIRT) and MIRT linking are discussed. Software BMIRT, LinkMIRT, and SimuMIRT are demonstrated. BMIRT (Yao, 2003) is a computer program that uses the Markov Chain Monte Carlo (MCMC) method to estimate item and ability parameters in the multidimensional multi-group IRT framework; exploratory and confirmatory approaches are supported. LinkMIRT (Yao, 2004) is a linking software that links two sets of item parameters onto the same scale in the MIRT framework. SimuMIRT is software that simulates data for various MIRT models.

This session is intended for researchers, who are interested in learning and understanding MIRT and MIRT linking and their applications, who are working with dichotomous or polytomous data that is multidimensional in nature. BMIRT supports the three-parameter logistic model, generalized two-parameter partial credit model, graded-response, rater model, and testlet-effect models.

Data requirements and formats, and sample data and input files will be provided to participants prior to the workshop. Participants should bring laptop computers and any data they would like to use.

Friday, April 13, 2012

Friday, April 13, 8:00 a.m.-12:00 noon, Plaza Ballroom B, GG – Webcast
Standard Setting in the Real World
   Michael Bunch, Measurement, Inc.
   Webcast Moderator: Craig Deville

This half-day training session focuses on the practical aspects of standard setting. Participants will receive a set of files including PowerPoint presentations, spreadsheets, sample forms, and on-site calculation tips for several standard-setting procedures. Modules focus on the place of standard setting in the larger context, development of performance level labels and descriptors (PLLs and PLDs), how to plan and conduct a standard-setting session, and how to turn recommendations obtained at such a session into policy; i.e., adopted cut scores.
Tips for Graduate Students: Advice for Finishing School, Obtaining a Job, and Starting a Career

Deborah Harris, ACT, Inc.; Julio Sanclemente, CTB/McGraw-Hill; Andrew Ho, Harvard Graduate School of Education; Nathan L. Wall, eMetric, LLC

This session is designed to assist graduate students in measurement programs in completing their degrees and entering the profession, by addressing frequently asked questions, such as what types of coursework an employer looks for, what to expect during a job interview, how to negotiate a job offer, which dissertation topics would make a good job talk, and so on. Our session is designed to provide a diversity of advice and viewpoints.

The training session has three main components:

1. Finishing up the Ph.D. including finding a dissertation topic, selecting a committee, and maximizing experiences while still a student;
2. Obtaining a job including how to locate where jobs are available, how to apply for jobs (including targeting cover letters, references, and resumes), and the interview process (job talks, questions to ask, negotiating an offer); and
3. Starting a career including adjusting to the environment, establishing a career path, publishing, finding a mentor, and balancing work and life.

Test Equating Methods and Practices

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

Given the conference theme, Supporting Student Success in a Global Economy: Methods, Practices, and Policies for Assessment and Learning, the session will highlight how ECD can support the integration of standards into curriculum and assessment.

The objectives of the session are to provide participants (1) clear and detailed examples of the processes and outcomes of ECD (2) how ECD both compliments and differs from other assessment design approaches, and (3) an evaluation of the benefits and challenges of using ECD in a large-scale assessment program. Examples from a nationally administered large-scale assessment program will be used. In addition, participants will engage in hands-on work by approximating the development of a hypothetical exam using ECD.
Friday, April 13, 2012

Friday, April 13, 8:00 a.m.-5:00 p.m., Plaza Ballroom C, KK
An Introduction to Student Growth Percentiles: Concepts, Calculation, Visualization and Use

  Damian W. Betebenner, National Center for the Improvement of Educational Assessment; Adam Van Iwaarden, University of Colorado, Boulder

With the availability of longitudinal data from large-scale assessments combined with the requirements of programs like Race to the Top requiring states to use student growth in judgments of educator/education quality, the interest in student growth models has never been greater. One student growth methodology currently being used as part of states efforts to incorporate student growth is the Student Growth Percentile methodology developed by Dr. Damian W. Betebenner in his work with the state of Colorado in the development of their state growth model. Student Growth percentiles are in various stages of use (ranging from preliminary investigation to full scale adoption) in more than 20 states. In this training session, participants will be introduced to student growth percentiles and shown how to use the open source R software package to calculate student growth percentiles with large (e.g., state-level) longitudinal datasets and construct data visualizations from the student growth percentile results. Topics covered will include a conceptual overview of student growth percentiles, data preparation and student growth percentile calculation and graphical representation followed by numerous real-world examples of how the results of such analyses can be used as part of state and federal accountability systems to inform discussions about educational quality.

Friday, April 13, 8:00 a.m.-5:00 p.m., Georgia Room A, LL
Language in Assessment—Approaches for Distinguishing and Addressing Construct-Irrelevant and Construct-Relevant Language: Research-Based Applications of Linguistic Modification and Academic English Language

  Edynn Sato, WestEd; Rachel Lagunoff, WestEd; Pamela Yeagley, WestEd

For English learners (ELs) and non-ELs who fail to achieve proficiency on state ELA assessments, language can be a construct-irrelevant factor that interferes with student performance on academic content assessments and negatively impacts the valid interpretation of test results. Consequently, uses of test results for instructional and accountability purposes could fall short of the goal of improving these learners’ academic achievement. Given our heightened accountability context for students, teachers, and schools, we are challenged with appropriately distinguishing between and addressing construct-irrelevant language and the language students need to achieve academic content and succeed in college and careers (academic English language). Session trainers
will present research and guide participants through the application of research-based strategies associated with (1) linguistic modification as a method for addressing construct-irrelevant language and (2) a framework for addressing academic English language in assessments. Measurement professionals, educators of students developing proficiency in English, graduate students interested in test development and language issues in assessment, and policy makers wanting to ensure fair, inclusive, and valid student measures are encouraged to participate.

Friday, April 13, 1:00 p.m.-5:00 p.m., Plaza Ballroom B, MM – Webcast
Issues and Advances in Constructed-Response
James Carlson, Derrick C. Higgins, Educational Testing Service;
Catherine McClellan, Educational Testing Service; Jean C. Williams,
Educational Testing Service; Richard D. Schwarz, Educational Testing
Service
Webcast Moderator: Richard Schwarz

Constructed-response items are an integral part of many accountability programs and ongoing educational reforms. This session will consolidate findings and innovations concerning constructed-response that will appeal to a large community of researchers, students or educational decision-makers. This training session on constructed-response surveys their technical properties such as minimizing rater effects, rater agreement statistics or scaling and equating. Issues pertaining to reliability and validity such as dimensionality will be presented.

A central problem concerns rater errors and methods for minimizing them. Rater protocols are reviewed and rater agreement statistics and models are surveyed. Methods for scaling and equating constructed-response are reviewed and the associated problems are discussed. Rater effects modeling is also introduced. Extensive coverage is given to the emerging field of automated scoring. Various technical approaches for automated scoring are presented. Selected statistical procedures will be demonstrated using the R open source software program. Participants are encouraged to download the package. Participants will also be provided with a copy of the manuscript Constructed-response.
Friday, April 13, 2012

Friday, April 13, 1:00 p.m.-5:00 p.m., Balmoral, NN
A Graduate Student’s Guide to the Presentation and Publication Process
Steven Wise, Northwest Evaluation Association; Brian French, Washington State University; André A. Rupp, University of Maryland; Susan Brookhart, Brookhart Enterprises LLC

This training session has four main components:

(1) Choosing the Topic, including how to choose research topics that are relevant to the field, aligned with student interests, and likely to contribute to a larger body of research.
(2) Writing the Conference Proposal, including tips on how to get proposals accepted and dos and don’ts of the writing process.
(3) Planning and Delivering the Presentation, including how to create and give effective presentations.
(4) Converting the Conference Paper into a Publication, including how to revise the conference paper in order to target a new audience and tips from an experienced journal editor.

Monday, April 16, 2012

Monday, April 16, 8:00 a.m.-12:00 noon, Plaza Ballroom C, OO – Webcast
IRT-Based Test Linking in R
Jonathan Weeks, Educational Testing Service; Benjamin Domingue, University of Colorado at Boulder
Webcast Moderator: Benjamin Domingue

IRT-based linking methods are widely used to place the results from two or more tests onto a common scale. With the increased use of R for psychometric analyses there is growing interest in using the software for test linking. This session will be conducted as a highly interactive lecture combined with hands-on data analysis in two parts. The first part will provide an overview of unidimensional test linking within an IRT framework including a discussion of terminology, linking designs, fundamental equations, properties/assumptions, and calibration methods. The second part will focus on the implementation of separate calibration methods in R using the plink package. Participants will learn how to import item/ability parameters from commonly used IRT estimation software, conduct the linking for two or more tests, and interpret results. Examples will be presented using a step-by-step approach with single-format and mixed-format tests.
Generalized linear mixed models (GLMM) provide a broad framework for modeling binary data and under certain assumptions also polytomous data. The `lmer` function of the `lme4` package in R (Bates & Maechler, 2009) is a general-purpose tool for the estimation of GLMMs, and therefore also for item response model (IRT) estimation. The training session focuses on the following measurement issues: measurement invariance, local dependence, and multidimensionality, in multiple group designs and longitudinal designs. The `lmer` function is a very flexible tool to approach these measurement issues within the GLMM framework. Learning to use the `lmer` function also gives deeper insight in IRT and its relationships with analysis of variance, regression analysis, and factor analysis, as well as with newer approaches such as multilevel analysis, structural equation modeling, and growth curve modeling. The training session is part of a course that has been taught at several universities in the US and in Europe by the two presenters. Participants are expected to bring a laptop with R downloaded, so that the `lme4` library can be used.
NCME Board of Directors Meeting

Members of NCME are invited to attend as observers.
Setting Academic Preparedness Standards for Job Training Programs: Are We Prepared? – Coordinated Session

Organizer
Susan Loomis, National Assessment Governing Board

Moderator
Susan Loomis, National Assessment Governing Board

Presenters
Jeremy Kilpatrick, University of Georgia
*The Standard for Minimal Academic Preparedness in Mathematics to Enter a Job Training Program*

Michael Kamil, Stanford University
*The Standard for Minimal Academic Preparedness in Reading to Enter a Job Training Program*

Luz Bay, Measured Progress, Inc.
*Preparing Job Trainers to Describe Knowledge, Skills, and Abilities Measured in an Academic Assessment*

Susan Loomis, National Assessments Governing Board
*A Study of “Irrelevant” Items: Impact on Bookmark Placement and Implications for College and Career Readiness*

Discussant
Barbara Dodd, University of Texas, Austin
Saturday, 8:15 a.m.–10:15 a.m., Plaza Ballroom B, A2

CAT and Multi-Stage Testing: Lessons from Practice – Paper Session

Moderator

Marty McCall, Northwest Evaluation Association

Presenters

Yi Zheng, University of Illinois, Urbana-Champaign, Yuki Nozawa, ACT, Inc., Xiaohong Gao, ACT, Inc., Hua-Hua Chang, University of Illinois, Urbana-Champaign

Multistage Adaptive Testing for a Large-Scale Classification Test: The Design, Heuristic Assembly, and Comparison with Other Testing Modes

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

Analysis of Embedded Pretest Items by Position

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

An Evaluation of a New Termination Criterion for Variable-Length Computerized Adaptive Proficiency Tests

Jie Lin, Pearson, Hua Wei, Pearson

Using Out-of-Level Items in Computerized Adaptive Testing

Steven Wise, Northwest Evaluation Association, Lingling Ma, Northwest Evaluation Association

Setting Response Time Thresholds for a CAT Item Pool: The Normative Threshold Method

Katrina M. Crotts, University of Massachusetts, Amherst, April Zenisky, University of Massachusetts, Amherst, Stephen Sireci, University of Massachusetts, Amherst

Estimating Measurement Precision in Reduced-Length Multistage-Adaptive Testing

Discussant

Duanli Yan, Educational Testing Service
Beyond Essay Scoring: Test Development through Natural Language Processing – Coordinated Session

Organizer

Kirk Becker, Pearson

Moderator

Kirk Becker, Pearson

Presenters

Mark Gierl, University of Alberta, Hollis Lai, University of Alberta, Krista Breithaupt, Medical Council of Canada

Using Automatic Item Generation to Create Items for Medical Licensure Exams

Kirk Becker, Pearson, James Olsen, Olsen Consulting

Generating Enhanced Item Writing Materials with Natural Language Processing

Dmitry Belov, Law School Admission Council, David Kary, Law School Admission Council

A Heuristic-Based Approach for Computing Semantic Similarity between Single-Topic Texts

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

Can Enemy Items be Automatically Identified?

Robert Cook, University of Massachusetts, Su Baldwin, National Board of Medical Examiners, Brian Clauser, National Board of Medical Examiners

An NLP-Based Approach to Automated Scoring of the USMLE® Step 2 CSE® Patient Note

Pamela Pollak, United Airlines and Illinois Institute of Technology, Alan Mead, Illinois Institute of Technology

Personality Scale Creation Using Latent Semantic Analysis as an Item Analysis Methodology

Discussant

Peter Foltz, Pearson
Linking and Equating: Lessons from Practice (I) – Paper Session

Moderator

Amy Hendrickson, The College Board

Presenters

Jiyun Zu, Educational Testing Service, Gautam Puhan, Educational Testing Service
Pre-Equating with Empirical Item Characteristic Curves: An Observed-Score Pre-Equating Method

Nathan Wall, eMetric, LLC, Qing Yi, Pearson, Xiaohong Gao, ACT, Inc., Deborah Harris, ACT, Inc.
Invariance of Equating Functions across Different Subgroups of Examinees Taking a Science Achievement Test Revisited: Is it Just a Sampling Issue?

Shalini Kapoor, University of Iowa, Won-Chan Lee, University of Iowa
“Classification Equity” Property of Equating

Benjamin Andrews, Educational Testing Service, Michael Kolen, University of Iowa, Won-Chan Lee, University of Iowa
Assessing First- and Second-Order Equity for the Common-Item Nonequivalent Groups Design Using Multidimensional IRT

Jason Meyers, Pearson, Stephen Murphy, Pearson, Joshua Goodman, Pearson, Ahmet Turhan, Pearson
The Impact of Item Position Change on Item Parameters and Common Item Equating Results under the 3PL Model

Sonya Powers, Pearson, Ahmet Turhan, Pearson, Salih Binici, Florida Department of Education
Population Invariance of Vertical Scaling Results

Discussant

Anne Fitzpatrick, Willow Farm
Item Development and Analysis – Paper Session

Moderator

Erika Hall, Pearson

Presenters

Andrew Wiley, The College Board, Aaron Douglas, The College Board, Mark Gierl, University of Alberta

Development of a Taxonomy of Test Item Features and Components: The Foundation of a More Efficient Assessment Design Process and Prediction of Item Performance

Chris Coleman, James Madison University, Pamela Kaliski, The College Board, Kristen Huff, Regents Research Fund

Examining the Relationship Between Opportunity to Learn and Difficulty Statistics on Exams Implementing Evidence-Centered Design

Pei-Hua Chen, National Chiao Tung University, Kuan-Yi Li, National Chiao Tung University

Optimizing Balanced Incomplete Block Designs Test Assembly for a Nationwide Educational Assessment in Taiwan


On the Technical Treatment of Guessing Behaviors in the Context of Formula-Scoring Instructions

Dries Debeer, University of Leuven, Rianne Janssen, University of Leuven

Modelling Item-Position Effects Within an IRT-Framework

Ian Hembry, University of Texas, Austin, Laurie Davis, Pearson, Daniel Murphy, Pearson, Mark Rosenstein, Pearson, Karen Lochbaum, Pearson

Evaluating an Automated Essay Scoring Engine for High-Stakes Consideration: Validity Evidence and a Generalizability Approach for Disaggregating Error

Discussant

Patrick Kyllonen, Educational Testing Service
Performance Assessment – Paper Session

Moderator

Joshua Goodman, Pearson

Presenters

Emily Lai, Pearson, Michaela Viering, Pearson
Assessing 21st Century Skills: Integrating Research Findings

An Investigation into the Development and Scoring of the Multi-Part Constructed-Response (MPCR) Item

William Skorupski, University of Kansas, Karen Baron, CTB/McGraw-Hill, Anne Springhorn, CTB/McGraw-Hill
A Comparison of Approaches for Scaling Multi-Step Performance Events

Terrence Moore, Ohio Department of Education, Lauren Monowar-Jones, Ohio Department of Education
Can We Count on Teachers for Scoring of Performance Assessments?

Huaping Sun, University of Memphis, John Harris Jr., Medical Directions, Inc.
Optimization of the Script Concordance Test: Should Deviant Responses or Deviant Items Be Removed?

Walter D. Way, Pearson, Leslie Keng, Pearson, Daniel Murphy, Pearson
The Case for Performance-Based Tasks without Equating

Discussant

Mark Shermis, The University of Akron
Saturday, 8:15 a.m.–10:15 a.m., Oxford, A7

Missing Data across Measurement Contexts – Paper Session

Moderator

Yao Wen, University of Wisconsin, Milwaukee

Presenters

Johnny Lin, University of California, Los Angeles, Peter M. Bentler, University of California, Los Angeles
A Probability-Based Test for Missing Completely at Random Data Patterns

A Comparison of Scoring Options for Omitted and Not-Reached Items through the Recovery of IRT Parameters

Chen-Wei Liu, The Hong Kong Institute of Education, Wen-Chung Wang, The Hong Kong Institute of Education
Modeling Nonignorable Missing Data in Unfolding IRT Models

Zhenqiu (Laura) Lu, University of Georgia, Zhiyong (Johnny) Zhang, University of Notre Dame, Allan Cohen, University of Georgia
Latent Growth Curve Models with Non-Ignorable Missing Data: Bayesian Inference and Model Selection Criteria

Long-Term Effects of Sampling Stringency and Treatment of Missing Responses on Capturing Growth under IRT Equating

Discussant

Holmes Finch, Ball State University
Opening Plenary Session

Moderator

Gregory J. Cizek, University of North Carolina, Chapel Hill

Presenter

John Easton, Director of the Institute of Education Sciences

*How Can the Testing Community Help Advance Education Policy and Practice?*

John Easton will describe efforts inside the Institute for Education Sciences to make education research and evaluation more useful and relevant to practitioners and policy makers, while simultaneously building better theories of school improvement and the systems needed to support school improvement. He will ask how the psychometric and testing community can contribute to this work.

John Q. Easton, the President’s nominee for Director of the Institute of Education Sciences (IES), was confirmed by the Senate on May 21, 2009, for a term of six years. Dr. Easton came to IES from Chicago, where most recently he was Executive Director of the Consortium on Chicago School Research at the University of Chicago. He had a long association with the Chicago Public Schools (CPS), serving in several research capacities, including as the Director of the Department of Research, Analysis, and Assessment. Dr. Easton also served a term (2003-2007) on the National Assessment Governing Board, which sets policies for NAEP.

In 2008, he was awarded a presidential citation from AERA for “research leadership and evaluation studies focused on improving the nature and quality of education in a large urban city.” Dr. Easton holds a Ph.D. in measurement, evaluation, and statistical analysis from the University of Chicago; a master’s degree from Western Washington University; and a bachelor’s degree from Hobart College. He is the author or coauthor of numerous reports and articles, as well as two books: (1) *Charting Chicago School Reform: Democratic Localism as a Lever for Change*, which was published by Westview Press in 1999, and (2) *Organizing Schools for Improvement: Lessons from Chicago*, which was published by the University of Chicago Press in 2010.
Cognitive Diagnostic Assessment: Lessons from Practice – Paper Session

Moderator

Jacqueline Leighton, University of Alberta

Presenters

Cong Chen, University of Illinois, Urbana-Champaign, Jinming Zhang, University of Illinois, Urbana-Champaign
*Q-Matrix Optimization in the Cognitive Diagnostic Assessment*

Catherine Close, University of Minnesota, Mark Davison, University of Minnesota
*An Exploratory Technique for Finding the Q-Matrix in Cognitive Diagnostic Assessment: Combining Theory with Data*

Hongli Li, Georgia State University, Peggy Van Meter, The Pennsylvania State University, Charles Hunter, Georgia State University
*Constructing and Validating a Q-Matrix for a Biology Test Using the Generalized-DINA Model*

Angela Broaddus, University of Kansas
*Modeling Student Understanding of the Foundations of Slope: An Application of the Attribute Hierarchy Method*

Marty McCall, Northwest Evaluation Association, Jody Clarke-Midura, Harvard University
*Analysis of Data From a Game-Based Assessment From AHM And IRT Perspectives*

Discussant

John Poggio, University of Kansas
### Beyond Unidimensional IRT: Advances in Modeling – Paper Session

**Moderator**

Frank Rijmen, Educational Testing Service

**Presenters**

Chun Wang, University of Illinois, Urbana-Champaign, Hua-Hua Chang, University of Illinois, Urbana-Champaign

*Reducing Bias in MIRT Trait Estimation*

Youngmi Cho, University of Maryland, Hong Jiao, University of Maryland, George Macready, University of Maryland

*Simultaneous Effects of Different Item Discrimination Profiles and Item Difficulty Profiles in Mixture 2PL Models*

Fu Liu, University of North Carolina, Greensboro, Terry Ackerman, University of North Carolina, Greensboro, Jie Zhou, Coastal Carolina University

*Skewed Logistic Multidimensional Item Response Models: A Simulation Study Involving Bayesian MCMC Estimation Approach*

Xue Lan Qiu, The Hong Kong Institute of Education, Wen-Chung Wang, The Hong Kong Institute of Education

*The Multilevel Random-Effect Rating Scale Model for Subjective Judgment in Rating Scales*

Nazia Rahman, Fordham University, Peter Pashley, Law School Admission Council, Charles Lewis, Fordham University

*Searching for Samejima Items and Finding a Paradox*

**Discussant**

Mark Reckase, Michigan State University
Saturday, 12:25 p.m.–1:55 p.m., Plaza Ballroom C, C3

AWARDS COMMITTEE
Award-Winning Research from the 2011 NCME Award Recipients – Invited Symposium

Organizer
Deborah Harris, ACT, Inc.

Presenters

Brian Lukoff, Harvard University
*Brenda H. Loyd Outstanding Dissertation Award: The Design and Validation of anAutomatically Scored Constructed-Response Item Type for Measuring Graphical Representation Skill*

Lydia Liu, Educational Testing Service
*Jason Millman Promising Measurement Scholar Award: Outcomes Assessment in Higher Education: Current Situation and Future Research*

Werner Wothke, American Institutes for Research
*Bradley Hanson Award for Contributions to Educational Measurement: Developments of OpenIRT*

Sun-Joo Cho, Vanderbilt University, Allan Cohen, University of Georgia, Seock-Ho Kim, University of Georgia, Brian Bottge, University of Kentucky
*Annual Award: Modeling Quantitative and Qualitative Change in the Math Skills of Low-Achieving Adolescents Using Latent Variable Models*
Beyond Consensus: The Changing Face of Validity – Coordinated Session

Organizer
Paul E. Newton, Cambridge Assessment

Moderator
Yeow Meng Thum, Northwest Evaluation Association

Presenters
Paul E. Newton, Cambridge Assessment (UK), Stuart D. Shaw, Cambridge International Examinations (UK)
We Need to Talk About Validity

Stuart D. Shaw, Cambridge International Examinations (UK), Paul E. Newton, Cambridge Assessment (UK)
Cracks in Construct Validity Theory

Stephen G. Sireci, University of Massachusetts, Amherst
De-“Constructing” Test Validation

Suzanne Lane, University of Pittsburg
The Interplay Among a Theory of Action, Validity, and Consequences

Discussant
Gregory J. Cizek, University of North Carolina, Chapel Hill
ASSESSMENT POLICY AND PRACTICE COMMITTEE
The Use of Test Scores to Evaluate Educators – Invited Symposium

Organizers
Kristen Huff, Regents Research Fund
Scott Marion, Center for Assessment

Moderator
Judith Koenig, Board on Testing and Assessment, National Research Council

Presenters
Henry Braun, Boston College
Welcome to the Land of Magical Thinking

Drew Gitomer, Rutgers, The State University of New Jersey
The Devil is in the Details: Collisions of Assumptions and Reality

Lorrie Shepard, University of Colorado, Boulder
Best- and Worst-Case Scenarios for Test-Based Teacher Evaluation

Discussants
Derek Briggs, University of Colorado, Boulder
Doug Harris, University of Wisconsin, Madison
Saturday, 12:25 p.m.–1:55 p.m., Balmoral, C6

Using Assessments to Optimize Learning and Educational Resource Availability – Coordinated Session

Organizer

Wim van der Linden, CTB/McGraw-Hill

Moderator

Wim van der Linden, CTB/McGraw-Hill

Presenters

Michelle Barrett, CTB/McGraw-Hill
A System to Optimize Learning and Educational Resource Availability

Wim van der Linden, CTB/McGraw-Hill
Key Methodological Concepts in the Optimization of Learning and Educational Resource Availability

Jie Li, CTB/McGraw-Hill
Modeling Optimal Learning and Educational Resource Availability

Qi Diao, CTB/McGraw-Hill, Wim van der Linden, CTB/McGraw-Hill
Using Computer Simulations to Stress Test a System to Optimize Learning and Educational Resource Availability

Discussant

Richard Luecht, University of North Carolina, Greensboro
Saturday, 12:25 p.m.–1:55 p.m., Oxford, C7

Special Populations: English Language Learners – Paper Session

Moderator

Anne Davidson, Alpine Testing Solutions

Presenters

Joni Lakin, Auburn University
_Evaluating Adequate Yearly Growth for ELL Students: Implications for Measurement and Accountability Policies_

Alvaro Arce-Ferrer, Pearson, Rense Lange, Illinois State Board of Education, Changjiang Wang, Pearson
_Effects of Linguistic Accommodations on Mathematics Test Scores and Reported Skills Diagnostic_

Jinok Kim, American Institutes for Research and Center for Research on Evaluation, Standards, and Student Testing/University of California, Los Angeles, Joan Herman, Center for Research on Evaluation, Standards, and Student Testing/University of California, Los Angeles
_When to Exit ELL Students: Monitoring Subsequent Success and Failure in Mainstream Classrooms after ELLs’ Reclassification_

Teresa King, Educational Testing Service, Joni Lakin, Auburn University
_Accessibility Considerations for Students with Disabilities and ELLs for Innovative Computer-Delivered Mathematics Assessments_

_Examining the Invariance of Equating Functions for English Language Learners in K-12 Assessments: Score Equity Assessment and Test Score Fairness_

Discussant

Guillermo Solano-Flores, University of Colorado, Boulder
The Structure of Writing Ability across Languages from the Perspective of Automated Scoring – Invited Symposium

Organizer
Anat Ben-Simon, National Institute for Testing & Evaluation

Moderator
Anat Ben-Simon, National Institute for Testing & Evaluation

Presenters
Yigal Attali, Educational Testing Service
*Factor Structure of the E-Rater Automated Essay Scoring System*

Paul Deane, Educational Testing Service
*What Automated Analyses of Corpora Can Tell Us About Students’ Writing Skills*

*Factorial Structure of Written Hebrew and its Application to Automated Essay Scoring*

Yoav Cohen, National Institute for Testing & Evaluation, Yael Shafran, National Institute for Testing & Evaluation
*Indices of Lexical Density for Automated Essay Scoring*

Discussant
Randy Bennett, Educational Testing Service
Scale Stability and Item Parameter Drift – Paper Session

Moderator
Litong Zhang, CTB/McGraw-Hill

Presenters
Craig Wells, University of Massachusetts, Amherst, Allan Cohen, University of Georgia, Athens, Ronald Serlin, University of Wisconsin, Madison, Louise Bahry, University of Massachusetts, Amherst
Detecting Consequential Item Parameter Drift Using the Range-Null Hypothesis
Hongling Wang, ACT, Inc., Dongmei Li, ACT, Inc., Deborah Harris, ACT, Inc.
Factors Affecting Scale Stability
Qing Yi, Pearson, Meichu Fan, Pearson
Impact of Item Parameter Shifts on Score Estimates in Computerized Adaptive Testing
Anna Topczewski, University of Iowa
Effect of Calibration on Vertical Scaling
Timothy O’Neil, Pearson, Alvaro Arce-Ferrer, Pearson
Empirical Investigation of Anchor Item Set Purification Processes in 3PL IRT Equating

Discussant
Lisa Keller, University of Massachusetts, Amherst
CAT: Beyond Unidimensional IRT – Paper Session

Moderator
Bob Dolan, Pearson

Presenters
Lihua Yao, Defense Manpower Data Center
*Multidimensional CAT Item Selection Methods for Domain Scores and Composite Scores with Item Exposure Control and Content Constraints*

Haiyan Lin, University of Illinois, Urbana-Champaign, Hua-Hua Chang, University of Illinois, Urbana-Champaign
*Item Selection Methods in Multidimensional Computerized Adaptive Testing Adopting Polytomously Scored Items Under Multidimensional Generalized Partial Credit Model*

Feifei Li, Educational Testing Service, Tsung-Han Ho, Educational Testing Service
*Using Information Correction Method in Testlet Selection for Computerized Adaptive Testing*

Hsu Chia-Ling, The Hong Kong Institute of Education, Wang Wen-Chung, The Hong Kong Institute of Education
*Variable Length Computerized Adaptive Testing in the Higher-Order DINA Model*

Hanwook Yoo, Educational Testing Service, Ronald Hambleton, University of Massachusetts, Amherst
*Evaluating Several Multidimensional Adaptive Testing Procedures for Diagnostic Assessment*

Discussant
Richard Luecht, University of North Carolina, Greensboro
Saturday, 2:15 p.m.–3:45 p.m., Georgia Room A, D4

Test and Assessment in China: Reform on Score Reporting, Interpretation, and Utilization – Invited Presidential Session

Moderator

Mary Pitoniak, Educational Testing Service

Presenters

Guangming Li, NEEA
*New Comer, Old Test: A Brief Introduction to NEEA and GaoKao in China*

Ning Han, NEEA
*The Balanced Score: Constructing a Criterion Referenced Score Interpretation to a Norm Referenced Test Battery*

Lei Wang, NEEA
*Efforts to Analyze High Stakes Testing in China as Means to Ensure Accountability*

Tao Xin, Beijing Normal University, Jiahui Zhang, Beijing Normal University
*Cognitive Diagnosis-Based Local Equating of Observed Score*

Qungsi Liu, NEEA
*EduRator – An Automated Scoring System for PETS Spoken Responses*

Discussant

Fanmin Guo, Graduate Management Admission Council
Recruitment and Training of Measurement Professionals – Innovative Format Session

Organizer
Deborah Bandalos, University of Georgia

Moderator
Carol Barry, The College Board

Presenters
Sara Finney, James Madison University, Dena Pastor, James Madison University
Recruitment of Measurement Professionals

Deborah Bandalos, University of Georgia, Jason Kopp, James Madison University
Teaching Introductory Measurement

Discussant
Barbara Plake, University of Nebraska, Lincoln

Organizer
David Torres Irribarra, University of California, Berkeley

Moderator
Ronli Diakow, University of California, Berkeley

Presenters
Andrew Maul, University of Oslo
*On the Ontology of Latent Variables*

Benjamin Domingue, University of Colorado, Boulder
*Are Educational Scales Plausibly Interval?*

David Torres Irribarra, University of California, Berkeley, Ronli Diakow, University of California, Berkeley
*Impact of Instrument Quality on the Selection of a Latent Variable Model*

Mark Wilson, University of California, Berkeley, David Torres Irribarra, University of California, Berkeley, Ronli Diakow, University of California, Berkeley
*Evaluating Practical Implications of Alternative Latent Structures: Consequences for Interpretation*

Discussant
Derek Briggs, University of Colorado, Boulder
Cognitive Diagnostic Assessment: Technical Advances (I) – Paper Session

Moderator

Robert Henson, University of Michigan, Ann Arbor

Presenters

Wenyi Wang, Jiangxi Normal University, Shuliang Ding, Jiangxi Normal University, Lihong Song, Jiangxi Normal University, Yan Liu, Shenzhen Seaskyland Technologies Co., Ltd.

The Application of FCA for Aiding Identifying Attributes in Cognitive Diagnostic Assessment

Yan Huo, Rutgers, The State University of New Jersey, Jimmy de la Torre, Rutgers, The State University of New Jersey

Estimating a Cognitive Diagnostic Model for Multiple Strategies via the Expectation-Maximization Algorithm

Hollis Lai, University of Alberta, Mark Gierl, University of Alberta, Ying Cui, University of Alberta

Item Consistency Index: An Item-Fit Index for Cognitive Diagnostic Assessment

Yun Jin Rho, Pearson, Rasil Warnakulasooriya, Pearson

Exploring How Skill Mastery Criteria Affect Classification Accuracy: A Bayesian Approach

Discussant

John Willse, University of North Carolina, Greensboro
Alternate Assessments for Students with Disabilities – Paper Session

Moderator

Patricia Almond, University of Oregon

Presenters

Michelle Vanchu-Orosco, University of Denver
_A Meta-Analysis of the Effects of Testing Accommodations on Large-Scale Assessments for Students with Disabilities_

Jose Palma, University of Minnesota
_The Think Aloud Method for the Validation of Item Modifications to Improve Test Accessibility_

Elizabeth Stone, Educational Testing Service, Tim Davey, Educational Testing Service
_Item-Bundle Analysis to Investigate Problematic Item Types for Students with Disabilities Taking Computer-Adaptive Tests_

Chunmei Zheng, University of Kansas, Amy Erickson, University of Kansas, Noonan Pattie, University of Kansas
_Psychometric Properties of the Arc’s Self-Determination Scale for Students with Disabilities: Bifactor Approach_

James Ingrisone, Pearson, Joshua Levy, Pearson, Xia Mao, Pearson
_Item Modification Analysis of Alternate Assessments Based on Modified Achievement Standards_

Tyler Lonczak, Measured Progress, Inc., Jenn Dunn, Measured Progress, Inc., Louis Roussos, Measured Progress, Inc., Tia Sukin, Measured Progress, Inc.
_Evaluating the Validity of the Item Complexity Assumption of an Alternate Assessment_

Discussant

Edynn Sato, WestEd
Computerized Adaptive Multistage Testing: From Design to Implementation – Coordinated Session

Organizer
Richard Luecht, University of North Carolina, Greensboro

Moderator
Richard Luecht, University of North Carolina, Greensboro

Presenters
John Willse, University of North Carolina, Greensboro, Terry Ackerman, University of North Carolina, Greensboro, Richard Luecht, University of North Carolina, Greensboro

An Overview of ca-MST: From Panel Configurations to Test Assembly
Richard Luecht, University of North Carolina, Greensboro

Computerized Adaptive Multistage Design Considerations

Xinrui Wang, University of North Carolina, Greensboro, Lauren Fluegge, University of North Carolina, Greensboro, Richard Luecht, University of North Carolina, Greensboro

A Large-Scale Comparative Study of the Accuracy and Efficiency of ca-MST Panel Design Configurations
Andrew Dallas, University of North Carolina, Greensboro, Robert Furter, University of North Carolina, Greensboro, Richard Luecht, University of North Carolina, Greensboro

Conditional Exposure and Comparative Accuracy of IRT vs. Number-Correct Routing Strategies for ca-MST

Thomas Proctor, The College Board, Gerald Melican, The College Board

Design, Implementation and Maintenance of an Operational ca-MST System Based on Existing Paper and Pencil Exams and Item Banks

Discussant
April Zenisky, University of Massachusetts, Amherst
Saturday, 4:05 p.m.–6:05 p.m., Plaza Ballroom C, E3

Fairness Issues and Practices in Automated Scoring of Constructed Response Items – Coordinated Session

**Organizer**
Chaitanya Ramineni, Educational Testing Service

**Moderator**
Chaitanya Ramineni, Educational Testing Service

**Presenters**
Jennifer Kobrin, The College Board, Emily Shaw, The College Board
*Essay Features and Performance of Non-Native English Speaking Students on the SAT Essay*

*The Stability of an Automated Scoring Engine Across Time and Subgroups When Student Ability Changes*

Fanmin Guo, Graduate Management Admission Council
*Does an Automated Scoring System Score Subgroups Differently in the GMAT AWA?*

Andrew Mroch, Pearson, Christopher Moore, Minnesota Department of Education, Peter Foltz, Pearson, Karen Lochbaum, Pearson
*Automated Scoring of Constructed Response Science Prompts Using Intelligent Essay Assessor*

*Development of Subgroup Index of Model Fit (SIMF) for Automated Essay Scoring Systems*

*Understanding Mean Score Differences Between Automated and Human Scores Using Classification and Regression Tress*

**Discussants**
Stephen Sireci, University of Massachusetts
Mark Shermis, The University of Akron
Linking and Equating: Lessons from Practice (II) – Paper Session

Moderator
Anne Fitzpatrick, Willow Farm

Presenters
Chunyan Liu, ACT, Inc., Michael Kolen, The University of Iowa
Evaluating Smoothing in Equipercentile Equating Using Fixed Smoothing Parameters

Chi-Wen Liao, Educational Testing Service, Samuel Livingston, Educational Testing Service
A Search for Alternatives to Common-Item Equating

Eunjung Lee, University of Iowa, Won-Chan Lee, University of Iowa, Robert Brennan, University of Iowa
Exploring Equity Properties in Equating

Yanxuan Qu, Educational Testing Service, Lixiong Gu, Educational Testing Service
Estimating Standard Error of Equating and Equating Bias for Double Linking Equating With a Nonequivalent Group Anchor Test Design by the Bootstrap Method

Jiahe Qian, Educational Testing Service
Updating the Empirical Target Population in Weighted IRT Equating

Xia Mao, Pearson
A Comparison of Pre-Equating and Post-Equating with Less Than Optimal Samples in the Large-Scale State Assessment Context

Discussant
Deborah Harris, ACT, Inc.

Moderator
Wayne Camara, The College Board

Presenters
Ronald Hambleton, University of Massachusetts, Amherst
Past Developments

Suzanne Lane, University of Pittsburg
Present Developments

Mark Reckase, Michigan State University
Future Developments

Discussant
Barbara Plake, University of Nebraska, Lincoln
Hierarchical Data Structures: Technical Advances – Paper Session

Moderator

Leslie Rutkowski, Indiana University

Presenters

Aaron Douglas, The College Board

Consequence of Ignoring the Clustering of Complex Samples of Students during Item Calibration for Large-Scale Educational Assessments


The Impact of Matrix-Sampling on Item Estimation and Plausible Value

Frank Rijmen, Educational Testing Service, Minjeong Jeon, University of California, Berkeley, Matthias von Davier, Educational Testing Service, Sophia Rabe-Hesketh, University of California, Berkeley

Higher Order Item Response Theory Models for Large-Scale Educational Assessment Surveys

Chalie Patarapichayatham, University of Oregon, Akihito Kamata, University of Oregon

Effects of Differential Item Discriminations between Individual-Level and Cluster-Level Under the Multilevel Item Response Theory Model

Minjeong Jeon, University of California, Berkeley, Frank Rijmen, Educational Testing Service, Sophia Rabe-Hesketh, University of California, Berkeley

Gaussian Variational Approximation for Estimating Generalized Linear Mixed Models with Crossed Random Effects

Shelby Haberman, Educational Testing Service, Jiahe Qian, Educational Testing Service

Effects of the Departure of Stratum Weights on Jackknifed Variance Estimation

Discussant

Paul De Boeck, University of Amsterdam
Saturday, 4:05 p.m.–6:05 p.m., Oxford, E7

Dimensionality Assessment: Theory & Practice – Paper Session

Moderator

Steffen Brandt, University of Kiel

Presenters

Jinming Zhang, University of Illinois, Urbana-Champaign
*DETECT Beyond Approximate Simple Structure*

Dubravka Svetina, Indiana University
*Assessing Dimensionality of Noncompensatory MIRT with Complex Structures*

Minhee Seo, Oakland University William Beaumont School of Medicine, Onder
Sunbul, Mersin University, Turkey
*Performance of Test Statistics for Verifying Unidimensionality*

Weiyi Cheng, The Pennsylvania State University
*Examining the Dimensionality of EARLI Numeracy Skill Scores*

Discussant

Brian Habing, University of South Carolina
Saturday, 6:15 p.m.–8:30 p.m., Hyatt Regency Hotel, Regency Ballroom A

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

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

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

The reception is sponsored by:

ACT, Inc.
Alpine Testing
American Institutes for Research
Applied Measurement Professionals, Inc.
Buros
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Measurement, Inc.
National Board of Medical Examiners
National Council of State Boards of Nursing, Inc.
Pacific Metrics Corporation
Pearson Educational Measurement
Pearson VUE
Questar Assessment, Inc.
Riverside Publishing
Sunday, 8:00 a.m.–9:30 a.m., Hyatt Regency Hotel, Regency Ballroom A

NCME Breakfast and Business Meeting

Theater style seating will be available for those who did not purchase a breakfast ticket but wish to attend the Business Meeting.
NCME Presidential Address

Message by NCME President Linda Cook.
Methodological Advances in Large-Scale Assessments – Coordinated Session

Organizer

Jonas Bertling, Educational Testing Service

Moderator

Patrick Kyllonen, Educational Testing Service

Presenters


*When is a Dimension a Dimension? Analysis of TIMSS Data with MTMM and Bi-Factor IRT Models*


*Interest in Mathematics – Improving its Measurement across Countries by Using an MTMM Approach*

David Kaplan, University of Wisconsin, Madison, Alyn Turner, University of Wisconsin, Madison

*Statistical Matching of Large-Scale Assessments: A Case Study of PISA and TALIS*

Svenja Vieluf, German Institute for International Educational Research (DIPF), Jan Hochweber, German Institute for International Educational Research (DIPF)

*Longitudinal Multilevel Modeling of LSA Data – Classroom Effects on Gender Differences in Reading Achievement*

Discussant

Richard Patz, CTB/McGraw-Hill
Sunday, 10:35 a.m.-12:05 p.m., Plaza Ballroom B, G2

Cognitive Diagnostic Assessment: Large-Scale Applications – Paper Session

Moderator
Laine Bradshaw, James Madison University

Presenters
Dong Gi Seo, Michigan Department of Education, Adisack Nhouyvanisvong, Naiku
Strength Profiles in Large-Scale Assessment: Comparison of the Accuracy and Consistency Using the Rasch and the DINA Diagnostic Classification Models

Yu-Lan Su, ACT, Inc.
Cognitive Diagnostic Analysis Using Hierarchically Structured Skills

Yi-Hsin Chen, University of South Florida, Claudia Guerere, University of South Florida, Chunhua Cao, University of South Florida
Cross-Cultural Validation of the Hypothesized Construct of the TIMSS-2007 Mathematics Test: A DIF Approach

Robert Fay, University of South Florida
How to Apply the LCDM Framework of Cognitive Diagnostic Modeling in the Analysis of Mathematics High Stakes Test Items

Discussant
Enis Dogan, Achieve, Inc.
Sunday, 10:35 a.m.–12:05 p.m., Plaza Ballroom C, G3

Linking and Equating: Mixed-Format Assessments – Paper Session

Moderator

Marc Kroopnick, Association of American Medical Colleges

Presenters

In investigating the effect of language on the equating functions of mixed-format tests

An investigation of small sample equating methods for mixed format exams with non-representative anchors

Anthony Fina, University of Iowa, Tawnya Knupp, ACT, Inc., YoungWoo Cho, ACT, Inc.
Issues related to classification indices when equating scores from mixed-format tests

Hua Wei, Pearson, Qing Yi, Pearson
Mixed-format test equating in the presence of multidimensionality and rater severity variations

Wei Wang, University of Iowa, Won-Chan Lee, University of Iowa, Michael Kolen, University of Iowa
Standard errors of equating using the common-item nonequivalent groups design for mixed-format tests

Valerie Link, Educational Testing Service
Impact of using mixed items types as anchors in mode comparability equatings as online assessment are phased in

Discussant

Lihua Yao, DoD Data Center
Model-Data Fit Assessment – Paper Session

Moderator
Min Liu, University of Hawaii, Manua

Presenters
Shiqi Hao, Michigan Department of Education, Dong Gi Seo, Michigan Department of Education, Steven Viger, Michigan Department of Education
Scale Comparability for Accommodated Forms Using lz Person-fit
Muhammad Naveed Khalid, University of Cambridge ESOL Examinations, Ardeshr Geranpayeh, University of Cambridge ESOL Examinations
Assessing Item Fit in Bayesian Framework
Ardeshir Geranpayeh, University of Cambridge ESOL Examinations, Muhammad Naveed Khalid, University of Cambridge ESOL Examinations
Robustness of Cheating Indices in Language Assessment
Dmitry Belov, Law School Admission Council
Detection of Test Collusion via Kullback-Leibler Divergence
Fei Zhao, University of Kansas, Wenhao Wang, University of Kansas, Neal M. Kingston, University of Kansas
On the Use of Nonparametric IRT Techniques for Checking 3PL IRT Model Fit

Discussant
Yi-Hsuan Lee, Educational Testing Service
Sunday, 10:35 a.m.-12:05 p.m., Georgia Room B, G5

DIVERSITY ISSUES AND TESTING COMMITTEE
Equitable Assessment of Special Populations – Invited Symposium

Moderator
Edynn Sato, WestEd

Presenters
Jamal Abedi, University of California, Davis
*How Accommodations Can Help in Making Assessments More Linguistically Accessible for ELL Students*

Stephanie Cawthon, University of Texas, Austin
*Equity Considerations in Assessment of Students Who are Deaf or Hard of Hearing*

Karin Hess, Center for Assessment
*The Importance of Learning Progression Research for Students with Cognitive Disabilities*

Michael Kolen, University of Iowa
*Score Comparability and Precision for Special Student Populations: Practice and Policy*

Discussant
James Pellegrino, University of Illinois, Chicago
Developing a NAEP Validity Research Framework – Coordinated Session

Organizer
Sharyn Rosenberg, American Institutes for Research

Moderator
Cadelle Hemphill, American Institutes for Research

Presenters
George Bohrnstedt, American Institutes for Research
The History of Developing a NAEP Validity Research Framework

Andrew Kolstad, National Center for Education Statistics, Cadelle Hemphill, American Institutes for Research
The Need for a Comprehensive Validity Framework for NAEP Research

Sharyn Rosenberg, American Institutes for Research, Brittany Carpenter, American Institutes for Research
The Process of Creating the NAEP Validity Framework Research Database, 1990 to Present

Fran Stancavage, American Institutes for Research, Sharyn Rosenberg, American Institutes for Research
Using NAEP to Inform Policy and Evaluate Programs

Discussant
Peggy Carr, National Center for Education Statistics
Sunday, 10:35 a.m.-12:05 p.m., Oxford, G7

PUBLICATIONS COMMITTEE
Thematic Orientations and Successful Publication Strategies for Selected Measurement Journals – Moderated Panel Discussion

Moderator
Joanna S. Gorin, Arizona State University

Panelists
Jacqueline Leighton, University of Alberta
*Educational Measurement: Issues and Practice*

Brian Clauser, National Board of Medical Examiners
*Educational and Psychological Measurement*

George Marcoulides, University of California, Riverside
*Journal of Educational Measurement*
CAT: Item Pool Usage & Exposure Control – Paper Session

Moderator

Wei He, Northwest Evaluation Association

Presenters

Kyung T. Han, Graduate Management Admission Council  
A New Item Selection Criterion to Incorporate Item Efficiency Level in Computerized Adaptive Testing

EunYoung Lim, American Institutes for Research, Jinming Zhang, University of Illinois, Urbana-Champaign, Hua-Hua Chang, University of Illinois, Urbana-Champaign  
The Effect of Multiple Item Pools for the Possibly Compromised Items in Computerized Adaptive Testing (CAT)

Ryoungsun Park, University of Texas, Austin, Jiseon Kim, University of Washington, Seattle, Hyewon Chung, John Jay College, CUNY, Barbara Dodd, University of Texas, Austin  
Enhancing Pool Utilization in Constructing the Multistage Test Using Mixed-Format Tests

Hsiu-Yi Chao, National Chung Cheng University, Jyun-Hong Chen, National Chung Cheng University, Shu-Ying Chen, National Chung Cheng University  
Improving the Efficiency of Stratification Procedures With Exposure Control in Computerized Adaptive Testing

Lixiong Gu, Educational Testing Service, Guangming Ling, Educational Testing Service, Yanxuan Qu, Educational Testing Service  
A Modified a-stratified Method for Computerized Adaptive Testing

Chingwei Shin, Pearson, Yuehmei Chien, Pearson, Walter D. Way, Pearson  
A Comparison of Two Content Balancing Methods for Fixed and Variable Length Computerized Adaptive Test

Discussant

Gage Kingsbury, Northwest Evaluation Association
Sunday, 12:25 p.m.–1:55 p.m., Plaza Ballroom B, H2

Cognitive Diagnostic Assessment: Technical Advances (II) – Paper Session

Moderator

Shauna Sweet, University of Maryland, College Park

Presenters

Guaner Rojas, Universidad Autonoma de Madrid, Jimmy de la Torre, Rutgers, The State University of New Jersey, Julio Olea, Universidad Autonoma de Madrid

Choosing Between General and Specific Cognitive Diagnosis Models When the Sample Size is Small

Young-Sun Lee, Teachers College, Columbia University, Yoon Soo Park, University of Illinois, Chicago, Tae-Je Seong, Korea Institute for Curriculum and Evaluation

An Extension of the DINA Model Using Covariates: Examining Factors Affecting Response Probability and Latent Classification

Ying Cui, University of Alberta

Classification Consistency and Accuracy Indexes for Cognitive Diagnostic Assessment

Sonia Romero, Universidad a Distancia de Madrid, Xavier Ordonez, Universidad Complutense de Madrid, Vicente Ponsoda, Universidad Autónoma de Madrid

Distribution and Properties of Three Criteria for Validation of Cognitive Structures by Means of the Least Squares Distance Model (LSDM)

Jinsong Chen, Rutgers, The State University of New Jersey, Jimmy de la Torre, Rutgers, The State University of New Jersey, Zao Zhang, Rutgers, The State University of New Jersey

Relative and Absolute Fit Evaluation in Cognitive Diagnosis Modeling

Discussant

Robert Henson, University of Michigan
Automated Scoring in Professions…Now and Beyond – Coordinated Session

Organizer
Elaine Rodeck, Medical Council of Canada

Moderator
Isaac Bejar, Educational Testing Service

Presenters
Melissa Margolis, National Board of Medical Examiners, Polina Harik, National Board of Medical Examiners, Constance Murray, National Board of Medical Examiners, Andrea Veneziano, National Board of Medical Examiners, Brian Clauser, National Board of Medical Examiners

Lessons Learned in the Process of Ten Years of Experience in Scoring Computer-Delivered Constructed-Response Items

Dennis Frezzo, Cisco, John Behrens, Cisco, Kristen DiCerbo, Cisco, Mark Chen, Cisco

An Extensible Micro-World for Assessment of Activities in the Data Networking Professions

Jilliam Joe, Educational Testing Service, Catherine McClellan, Educational Testing Service

Automated Scoring in Large-scale Teaching Quality Assessment

Discussants
Isaac Bejar, Educational Testing Service
Walter D. Way, Pearson
Sunday, 12:25 p.m.–1:55 p.m., Georgia Room A, H4

Random Item Latent Structure Models – Coordinated Session

**Organizer**
Paul De Boeck, University of Amsterdam

**Moderator**
Paul De Boeck, University of Amsterdam and K.U. Leuven

**Presenters**
Timohir Asparouhov, Mplus, Bengt Muthén, Mplus

*General Random Effect Latent Variable Modeling: Random Subjects, Items, Contexts, and Parameters*

Sun-Joo Cho, Vanderbilt University, Sophia Rabe-Hesketh, University of California, Berkeley and University of London

*Random Item Discrimination Maximum Likelihood Estimation of Item Response Models*

Hollis Lai, University of Alberta, Mark Gierl, University of Alberta

*Calibrated Item Generation for Cognitive Diagnostic Assessments*

Paul De Boeck, University of Amsterdam and K.U. Leuven

*A Random Item GLMM Approach for the Explanatory Study of Longitudinal Measurement Invariance*

**Discussant**
Matthew Johnson, Teachers College, Columbia University
AWARDS COMMITTEE
Career Award Address: How is Testing Supposed to Improve Schooling?

Moderator
Mark Wilson, University of California, Berkeley

Presenter
Edward Haertel, Stanford University

Discussant
Daniel Koretz, Harvard University
Measuring College and Career Readiness: Opportunities and Challenges for the PARCC Assessments – Coordinated Session

Organizer

Enis Dogan, Achieve, Inc.

Moderator

Jeff Nellhaus, Achieve, Inc.

Presenters

Wayne Camara, The College Board, Rachel Quenemoen, National Center on Educational Outcomes
College and Career Readiness: Developing Performance Level Descriptors and Defining Criteria

Lauress Wise, Human Resources Research Organization
Combining Multiple Indicators of Achievement and Growth

Richard Luecht, University of North Carolina, Greensboro, Wayne Camara, The College Board
A Framework for Evaluating the Comparability of Scores in Multistate Settings

Derek Briggs, University of Colorado, Boulder
Prospects for Modeling Growth with Tests Designed by the State Assessment Consortiums

Discussants

Kristen Huff, Regents Research Fund
Stephen Sireci, University of Massachusetts
Response Time Modeling – Paper Session

Moderator

Wim van der Linden, CTB/McGraw-Hill

Presenters

Sheng-Yun Huang, The Hong Kong Institute of Education, Wen-Chung Wang, The Hong Kong Institute of Education

*Adopting Response Time in Computerized Classification Testing*

Yi-Hsuan Lee, Educational Testing Service, Yue (Helena) Jia, Educational Testing Service

*An Investigation of Response Time in a NAEP Computer-Based Assessment*

Shudong Wang, Northwest Evaluation Association, Hong Jiao, University of Maryland

*Joint Modeling Response Time and Response Accuracy: A Comparison Between Bayesian and Restricted Pseudo-Likelihood Methods*

Frank Goldhammer, German Institute for International Educational Research (DIPF), Ulf Kröhne, German Institute for International Educational Research (DIPF)

*Controlling Individual Speed to Standardize Performance Measures*

Discussant

David Scrams, Financial Industry Regulatory Authority
### Assessment of Students with Significant Cognitive Disabilities: Dynamic Learning Maps (DLM) & National Center and State Collaborative (NCSC) – Structured Demonstration

**Moderators**  
Martha Thurlow, University of Minnesota National Center on Educational Outcomes (NCSC)  
Alan Sheinker, University of Kansas (DLM)

**Presenters**  
Jacqui Kearns, University of Kentucky (NCSC), Patti Whetstone, University of Kansas (DLM)  
Characteristics of Students Who Participate in These Assessments  
Claudia Flowers, University of North Carolina, Charlotte (NCSC), Karin Hess, National Center for the Improvement of Educational Assessment (NCSC)  
Content Foundations of the NCSC Assessment  
Marianne Perie, National Center for the Improvement of Educational Assessment (NCSC), Paul Nichols, National Center for the Improvement of Educational Assessment (NCSC)  
Designing the NCSC Assessment  
Ellen Forte, edCount, LLC (NCSC), Elena Diaz-Bilello, National Center for the Improvement of Educational Assessment (NCSC)  
Building the Validity Argument  
Kelli Thomas, University of Kansas (DLM), Carrie Mark, University of Kansas (DLM)  
Learning Maps: A Comprehensive Structure for Assessment  
Neal Kingston, University of Kansas (DLM), Amy Clark, University of Kansas (DLM)  
Instructionally Relevant Item Types  
Tom Walsh, University of Kansas (DLM), Fei Zhao, University of Kansas (DLM)  
Use of Bayesian Network Analysis in an Instructionally Embedded Assessment System  

**Discussion Leaders**  
Neal Kingston, University of Kansas (DLM)  
Rachel Quenemoen, University of Minnesota National Center on Educational Outcomes (NCSC)
Sunday, 2:15 p.m.–3:45 p.m., Plaza Ballroom A, I1

Status and Growth for Alternate Assessments – Paper Session

Moderator
Karen Barton, CTB/McGraw-Hill

Presenters
Jill van den Heuvel, CTB/McGraw-Hill, Mary Hansen, Robert Morris University, Cristina Ilangakoon, CTB/McGraw-Hill

Examining Student Growth on Four States’ Alternate Assessments: Measurements of Success

Meagan Karvonen, Western Carolina University, Shawnee Wakeman, University of North Carolina, Charlotte, Claudia Flowers, University of North Carolina, Charlotte, Shauna Moody, Western Carolina University

Building Blocks: Cross-Grade Progressions in Alternate Assessments Based on Alternate Achievement Standards (AA-AAS)

Tia Sukin, Measured Progress, Inc., Jennifer Dunn, Measured Progress, Inc.

Presenting a Validity Argument for a Statewide Alternative Assessment: Addressing Inferences with Novel Approaches

Jennifer Dunn, Measured Progress, Inc., Louis Roussos, Measured Progress, Inc., Tyler Lonczak, Measured Progress, Inc., Tia Sukin, Measured Progress, Inc.

An Exploration of Growth Models for an Alternate Assessment

Discussants
Gerald Tindal, University of Oregon
Andrew Roach, Arizona State University
Too High, Too Low, or Just Right: Using Empirical Evidence to Incorporate Policy Considerations in Setting Statewide Performance Standards – Coordinated Session

Organizer

Katie McClarty, Pearson

Moderator

Laurie Davis, Pearson

Presenters


Grounded in Content: How Content Alignment Studies Can Provide Meaning to External Validity Evidence Used in Standard Setting

Leslie Keng, Pearson, Daniel Murphy, Pearson, Matthew Gaertner, Pearson

Supported by Data: A Comprehensive Approach for Building Empirical Evidence for Standard Setting

Katie McClarty, Pearson, Laurie Davis, Pearson

Enriched by Policy – Making Performance Standards Meaningful for Educational Outcomes

Natasha Williams, Pearson, Leslie Keng, Pearson, Kimberly O'Malley, Pearson

Maximizing Panel Input: Incorporating Empirical Evidence in a Way the Standard-Setting Panel will Understand

Discussants

Steve Ferrara, Pearson

Stephen Sireci, University of Massachusetts, Amherst
Sunday, 2:15 p.m. –3:45 p.m., Plaza Ballroom C, I3

Efforts to Improve Measurement Precision at the Lower End of the National Assessment of Educational Progress (NAEP) Scales – Coordinated Session

Organizer

Young Kim, American Institutes for Research

Moderator

George Bohrnstedt, American Institutes for Research

Presenters

Enis Dogan, Achieve, Inc., Sal Rivas, University of Luxembourg

*A Blind Item-Review Process as a Method to Investigate Item Characteristics in Measuring Diverse Populations*

Lizanne DeStefano, University of Illinois, Urbana-Champaign

*Study of the Feasibility of a NAEP Accessible Booklet Alternative*

Kim Gattis, American Institutes for Research, Young Kim, American Institutes for Research

*Developing Assessment Items Which Can Measure Knowledge and Skills Appropriate for Low-Achieving Students*


*An Adaptive Approach for Group-Score Assessments*

Discussant

Lorrie Shepard, University of Colorado, Boulder
Subdimensions and Subscores – Paper Session

Moderator

Anton Béguin, Cito

Presenters

Jianbin Fu, Educational Testing Service, Yanxuan Qu, Educational Testing Service
A Review of Subscore Estimation Approaches

Ying Li, American Institutes for Research, Robert Lissitz, University of Maryland
Exploring the Full-Information Bifactor Model in Vertical Scaling with Construct Shift

James Marcus, Fordham University, Frank Rijmen, Educational Testing Service
The Stability of a Bifactor Model across Multiple Operational Forms of Large-Scale High-Stakes Assessment of English-Language Proficiency

Ji Seung Yang, University of California, Los Angeles, Scott Monroe, University of California, Los Angeles, Li Cai, University of California, Los Angeles
A Multiple Group Multilevel Item Bifactor Model with Applications

Steffen Brandt, Kiel, Germany
Definition and Classification of a Generalized Subdimension Model

Discussant

Frank Rijmen, Educational Testing Service
### Educational Testing Around the World – Invited Multimedia Session

**Moderator**

Terry Ackerman, University of North Carolina, Greensboro

**Presenters**

- Fang Chen, East China Normal University, Shanghai, China
  *Educational Testing in China: JAES as an Example*

- Jeff Lansdale, International Advisor in Education Policy and Standards-Based Reform and Implementation, Tegucigalpa, Honduras
  *Diagnostic, Formative, and Summative Assessments in Honduras*

- Fernando Rubio, Universidad del Valle de Guatemala, Guatemala City, Guatemala
  *Educational Testing in Guatemala*

- Anil Kanjee, Tshwane University of Technology, South Africa
  *Assessment and Education Transformation in South Africa*

**Discussants**

- Michael Rodriguez, University of Minnesota
- Luz Bay, Measured Progress, Inc.
Assessment of Linguistic Minorities: An International Perspective – Invited Symposium

Moderator

Eva Baker, Center for Research on Evaluation, Standards, and Student Testing

Presenters

Stephen May, University of Auckland, New Zealand, Peter Keegan, University of Auckland, New Zealand

*Indigenous Language Assessment: Cultural and Linguistic Implications*

Jurgen Baumert, Max Planck Institute for Human Development, Germany

*Is There a Matthew Effect in Reading and Mathematics in Elementary School?*

Guillermo Solano-Flores, University of Colorado, Boulder, United States

*Probabilistic Approaches to Examining the Impact of Items’ Linguistic Features on Student Performance*

Kadriye Ercikan, University of British Columbia, Canada, Marielle Simon, University of Ottawa, Canada, Wolff-Michael Roth, University of Victoria, Canada, Debra (Dallie) Sandilands, University of British Columbia, Canada, Juliette Lyons-Thomas, University of British Columbia, Canada

*Assessment of Linguistic Minorities in Canada*

Discussants

Guadalupe Valdes, Stanford University
Ronald Hambleton, University of Massachusetts, Amherst
Mathematics Assessment – Paper Session

Moderator

Howard Mzumara, Indiana University - Purdue University, Indianapolis

Presenters

Turker Toker, University of Denver, Kathy Green, University of Denver
An Application of Cognitive Diagnostic Assessment on TIMMS-2007 8th Grade Mathematics Items

Mee-Ae Kim-O, Georgia Institute of Technology, Susan Embretson, Georgia Institute of Technology, Hyun Seok Kim, Georgia Institute of Technology, John Poggio, University of Kansas
Analysis of Growth in Mathematical Achievement from 6th to 8th Grade Using Multidimensional Rasch Model for Learning and Change (MRMLC)

David Foster, Silicon Valley Mathematics Assessment Collaborative
Improved Mathematical Teaching Practices and Student Learning Using Complex Performance Assessment Tasks

An Exploratory Study for the Initial Placement Test of Online Math Learning Courseware Using the Attribute Hierarchy Model and Computerized Adaptive Testing

Discussant

Finbarr Sloane, Arizona State University
Sunday, 2:15 p.m.–3:45 p.m., Regency EF, I8

Embedded Assessment in Innovative Digital Learning Environments – Structured Demonstration

Moderator

André A. Rupp, University of Maryland
Valerie Shute, Florida State University

Presenters

Yoon Jeon Kim, Florida State University
*Crayon Physics Deluxe: When the Science of Assessment Development Meets the Art of Game Design*

Deidre Kerr, University of California, Los Angeles
*Save Patch: Using In-Game Performance to Assess Content Knowledge*

Kristen DiCerbo, Cisco
*PacketTracer / Aspire: Leveraging a Complex Simulation Environment for Gaming and Assessment*

Cynthia D’Angelo, University of Wisconsin, Madison
*LandScience: Assessing Student Discourse in Games with Epistemic Network Analysis*

Edys Quellmalz, WestEd
*SimScientists: Using Simulations to Assess Model-Based Learning and Inquiry Practices*

Dixie Ching, New York University
*Battleship Numberline: Using Eye Tracking and Retrospective Think-Alouds to Investigate Fraction Estimation Strategies in Middle School Students*

Douglas Clark, Vanderbilt University
*SURGE: Bridging Intuitive and Formal Understandings of Physics*

Discussants

Valerie Shute, Florida State University
Matthew Ventura, Educational Testing Service
Automated Text Processing: Readability Measurement for Assessment and Instruction – Invited Symposium

Organizer
David Williamson, Educational Testing Service

Moderator
David Williamson, Educational Testing Service

Presenters
Art Graesser, University of Memphis, Danielle McNamara, Arizona State University
Coh-Metrix, Text Easability Assessor and Assessments of Common Core Standards

Thomas Landauer, Pearson Knowledge Technologies, Walter D. Way, Pearson
Improving Text Complexity Measurement Through the Word Maturity Metric

Kathleen Sheehan, Educational Testing Service
SourceRater: Helping Teachers and Test Developers Determine the Difficulty of Text for Instruction and Assessment

Carl Swartz, MetaMetrics, A. Jackson Stenner, MetaMetrics
Understanding Text Complexity, Reader Ability, and Task Difficulty to Help Educators Personalize Literacy Activities

Eric Stickney, Renaissance Learning, Inc., Michael Milone, Renaissance Learning, Inc.
Practical Aspects of Readability Analysis for Informing Instruction and Test Development

Linda Straley, Questar Assessment, Inc., Leon Dreyfus, Questar Assessment, Inc.
Degrees of Reading Power Program: A Unique Reading Comprehension Assessment Designed Specifically to Link Students and Texts

Jessica Nelson, University of Pittsburgh
An Empirical Comparison of Text Difficulty Metrics

Discussant
Charles Perfetti, University of Pittsburgh
Sunday, 4:05 p.m.–6:05 p.m., Plaza Ballroom B, J2

DIF Detection: Technical Advances – Paper Session

Moderator

Louis Roussos, Measured Progress, Inc.

Presenters

Holmes Finch, Ball State University, Brian French, Washington State University
*Bayesian Modeling of Differential Item Functioning: Type I Error and Power Rates in the Presence of Nonnormal Ability Distributions, Impact, and Anchor Set Contamination*

Stefano Rainelli, University of Miami, Randall Penfield, University of Miami
*Extending the Empirical Bayes DIF Approach to Polytomous Items*

Hariharan Swaminathan, University of Connecticut, H. Jane Rogers, University of Connecticut, Pei-Hsuan Chiu, University of Connecticut, Rohini Sen, University of Connecticut
*A Bayesian Approach for Assessing Differential Item Functioning*

Priya Kannan, Educational Testing Service, Kevin Kim, University of Pittsburgh
*Comparing DIF Detection for Multidimensional Polytomous Models Using MG-CFA and MGRM-DFIT*

Zhushan Li, Boston College, Feng Hong, Harvard University
*Log-Linear Item Response Model for DIF Detection: A Pseudolikelihood Approach*

Jyun-Hong Chen, National Chung Cheng University, Ya-Hui Su, National Chung Cheng University, Shu-Ying Chen, National Chung Cheng University
*Using IRTLRT to Assess Differential Item Functioning for Pre-Test Items in Computerized Adaptive Testing*

Discussant

Seock-Ho Kim, University of Georgia
Linking and Equating: Technical Advances (I) – Paper Session

Moderator

Jonathan Weeks, Educational Testing Service

Presenters

Anne Corinne Huggins, University of Miami
The Effect of Differential Item Functioning on IRT True Score Equating Invariance

Yanmei Li, Educational Testing Service
The Impact of Anchor Characteristics on IRT Equating for Set-Based Tests

Marie Wiberg, Umeå University, Wim van der Linden, CTB/McGraw-Hill, Alina von Davier, Educational Testing Service
Integrating Kernel and Local Equating

Multiple Linkings in Equating: A Comparison Study of One, Two, Three, and Four Links

Yi-Fang Wu, University of Iowa, Deping Li, Educational Testing Service
The Standard Errors for IRT True Score Equating Based on Internal and External Anchors

Rob Kirkpatrick, Pearson, Ahmet Turhan, Pearson, Jie Lin, Pearson
Linking Two Assessment Systems Using Common-Item IRT Method and Equipercentile Linking Method

Discussant

Jinghua Liu, Educational Testing Service
Sunday, 4:05 p.m.–6:05 p.m., Georgia Room A, J4

Classification in IRT – Paper Session

Moderator

Matthias von Davier, Educational Testing Service

Presenters

Arnond Sakworawich, Fordham University, Charles Lewis, Fordham University
*Setting Cut-Scores for College Placement and Classification Using Bayesian Decision Theory*

Jianan Sun, Beijing Normal University, Tao Xin, Beijing Normal University, Shumei Zhang, Beijing Normal University, Jimmy de la Torre, Rutgers, The State University of New Jersey
*An IRT-Based Cognitive Diagnostic Method – Generalized Distance Discrimination*

Steven Nydick, University of Minnesota, Yuki Nozawa, ACT, Inc., Rongchun Zhu, ACT, Inc.
*Accuracy and Efficiency in Classifying Examinees Using Computerized Adaptive Tests: An Application to a Large-Scale Test*

Quinn Lathrop, University of Notre Dame, Ying Cheng, University of Notre Dame
*Comparing Two Approaches to Classification Accuracy Under Item Response Theory*

Ying Cheng, University of Notre Dame
*Distribution-Based Expected Classification Accuracy and Consistency within the IRT Framework: A Conceptual Comparison Between Two Popular Approaches*

Melinda Montgomery, University of Kansas, William Skorupski, University of Kansas
*Investigation of IRT Parameter Recovery and Classification Accuracy in Mixed Format Assessments*

Discussant

Russell Almond, Florida State University
NATIONAL ASSOCIATION OF TEST DIRECTORS
Data Use in a World of Common Standards and Assessments: How Can Aligned, Timely and Comparative Student Assessment Data Impact Teacher Practice and Support Student Success? – Invited Symposium

Moderator
Trevor Mahlum, Casper College

Presenters
Enis Dogan, Achieve, Inc.
Kim Schildkamp, University of Twente
Arie van der Ploeg, American Institutes for Research
Jeff Wayman, University of Texas, Austin
Research and Development on Assessment and Accountability for Special Education – Coordinated Session

Organizer
Joseph Stevens, University of Oregon

Moderator
Stephen Elliott, Arizona State University

Presenters
Ann Schulte, North Carolina State University  
*Critical Issues for Examining Special Education Outcomes in Status and Growth Accountability Models*

Stephen Elliot, Arizona State University, Alexander Kurz, Arizona State University  
*Measurement of Opportunity to Learn and its Contribution to Achievement Gains for Students with Disabilities*

Gerald Tindal, University of Oregon, Joseph Nese, University of Oregon  
*Within Year Achievement Growth Using Curriculum Based Measures*

Joseph Stevens, University of Oregon, Keith Zvoch, University of Oregon, Gina Biancarosa, University of Oregon  
*Technical Issues in the Use and Interpretation of Growth Models for Students With and Without Disabilities*

Discussants
Barbara Plake, University of Nebraska  
Yeow Meng Thum, Northwest Evaluation Association
Applied Measurement Studies (I) – Paper Session

Moderator
Jill van den Heuvel, CTB/McGraw-Hill

Presenters
John Willse, University of North Carolina, Greensboro, Keston Fulcher, James Madison University, Christine DeMars, James Madison University
Confirmatory Mixture Rasch Analysis for Understanding and Improvement of an Information Seeking Skills Test

Yi Lu, University of Wisconsin, Madison, Daniel Bolt, University of Wisconsin, Madison
Application of a MIRT Model to Address Response Style Differences in Cross-National Assessment of Educational Attitudes

An Examination of Three Methods for Detecting Bias in Selection for Higher Education

Development of the Career and College Ready Assessment Targets for the Next Generation GED Assessment

Kathryn Akers, Kentucky P20 Data Collaborative, Kelly Bradley, University of Kentucky
Connections, Paths, and Explanations: A Social Network Approach to Investigating Experiences of Early Childhood Special Education with the ECLS-K

Gyenam Kim-Kang, Purdue University, SoYoon Yoon, Purdue University
Computerized Adaptive Testing of the Revised Purdue Spatial Visualization Tests: Visualization of Rotations (Revised PSVT:R)

Discussant
Michael Rodriguez, University of Minnesota
Sunday, 4:05 p.m.–6:05 p.m., Regency EF, J8

Reading for Understanding: Assessment and Core Terms – Structured Demonstration

Moderator
Joanna S. Gorin, Arizona State University

Opening Remarks
John Easton, Institute for Education Sciences

Presenters

Gathering and Evaluating Evidence for Theory-Based Assessment Designs of Reading for Understanding: Eye Tracking and Other Innovative Techniques


Global Integrated Student Assessment: Summative Measures of Reading for Understanding

Yaacov Petscher, Florida State University, Barbara Foorman, Florida State University, Christopher Schatschneider, Florida State University, Richard Wagner, Florida State University

Multiple Group Comparison of Component Skills and Relations to Reading Comprehension

James Pellegrino, University of Illinois, Chicago, Joseph Magliano, Northern Illinois University, Susan Goldman, University of Illinois, Chicago, Kimberly Lawless, University of Illinois, Chicago

Assessing Complex Comprehension: Models & Methods Focused on Disciplinary Competence

Carolyn Denton, University of Texas Health Science Center Houston, Mischa Enos, University of Texas Health Science Center Houston

Assessing Reading for Understanding in Adolescent Adequate and Poor Comprehenders with Think-Aloud Verbal Protocols

Ann A. O’Connell, The Ohio State University, Jill Pentimonti, The Ohio State University, Shayne Piasta, The Ohio State University, James A. Bovaird, University of Nebraska, Lincoln, and the Language and Reading Research Consortium (LARRC)

Assessing Cognitive Processes at the Core of Reading Comprehension: Pre-Kindergarten Through Grade 3 for the General English Speaking Population

M. Adelaida Restrepo, Arizona State University, Shelley Gray, Arizona State University, and the Language and Reading Research Consortium (LARRC)

Assessing Cognitive Processes at the Core of Reading Comprehension for ELLs in English-Only Programming
**GRADUATE STUDENT ISSUES COMMITTEE**

**Graduate Student Poster Session**

**Organizers**
Chad Gotch, Washington State University  
Ian Hembry, University of Texas, Austin  
Jeffrey Patton, University of Notre Dame  
Amanda Soto, University of Massachusetts, Amherst  
Chia-Lin Tsai, University of Missouri, Columbia  
Robert Zwitser, Cito/University of Amsterdam

**Presenters**

**Poster #1**  
Jing Chen, Michigan State University  
*Applying IRT Methods to Design Learning Progression Based Science Assessments*

**Poster #2**  
Juan Chen, University of Iowa, Won-Chan Lee, University of Iowa  
*Bootstrap Standard Errors of Group Invariance Statistics for Concordance*

**Poster #3**  
Ying-Fang Chen, University of Maryland, College Park, Hong Jiao, University of Maryland, College Park  
*The Impact of Missing Responses on Parameter Estimation and Classification Accuracy in a Mixture Rasch Model*

**Poster #4**  
Jinnie Choi, University of California, Berkeley, Hyo Jeong Shin, University of California, Berkeley, Karen Draney, University of California, Berkeley, Charles Anderson, Michigan State University, Mark Wilson, University of California, Berkeley  
*Exploring the Relationship Between Forced-Choices and Constructed Responses of Mixed-Format Items Using MIRT Estimates*

**Poster #5**  
Joseph Chow, The Hong Kong Institute of Education  
*The Mixture Modeling Approach to Heterogeneity in Large-Scale Assessment and its Implication in International Comparative Studies*
Poster #6
Man-Wai Chu, University of Alberta, Hollis Lai, University of Alberta, Xian Wang, University of Alberta
Effectiveness of CATSIB Under Impact in a Multistage Testing Environment

Poster #7
Andrew Dallas, University of North Carolina, Greensboro, Robert Furter, University of North Carolina, Greensboro, Xiao Luo, University of North Carolina, Greensboro, Jia Ma, University of North Carolina, Greensboro
Using Assessment Engineering to Build Effective Blueprints and Task Models for State End of Grade Assessments

Poster #8
Richard Feinberg, University of Delaware/National Board of Medical Examiners, Howard Wainer, National Board of Medical Examiners, Ratna Nandakumar, University of Delaware, Michael Jodoin, National Board of Medical Examiners
Subscores That Add Value in a Licensure Context: A Simulation Study

Poster #9
Yuling Feng, University of South Carolina, Brian Habing, University of South Carolina
Q Matrix Validation Method for the Reduced RUM

Poster #10
Yin Fu, South Carolina University, Brian Habing, South Carolina University
Mokken Scaling for Items with Varying Numbers of Response Categories

Poster #11
Likun Hou, University of Delaware, Jimmy de la Torre, Rutgers, The State University of New Jersey, Ratna Nandakumar, University of Delaware
Differential Item Functioning Assessment in Cognitive Diagnosis Modeling: Applying Wald Test to Investigate DIF for DINA Model

Poster #12
Ying-Ju Hsu, University of Iowa, David Shin, Pearson
Reducing Measurement Error for Extreme Proficiency Estimation in Computerized Adaptive Testing via Administering Off-Grade Items
Poster #13
Mehmet Kaplan, Rutgers, The State University of New Jersey, Soo Youn Lee, Rutgers, The State University of New Jersey, Jinsong Chen, Rutgers, The State University of New Jersey, Yan Huo, Rutgers, The State University of New Jersey, Jimmy de la Torre, Rutgers, The State University of New Jersey
**Higher-Order and Saturated Single- and Multiple-Strategy DINA Models: A Comparison Based on EM Algorithm**

Poster #14
Han Yi Kim, University of Iowa, Walter Vispoel, University of Iowa
**A Comparison of Psychometric Properties for the Balanced Inventory of Desirable Responding: Fitting One-Parameter Logistic Model, Two-Parameter Logistic Model, Partial Credit Model, and Graded Response Model**

Poster #15
Ja Young Kim, University of Iowa, Won-Chan Lee, University of Iowa, Deborah Harris, ACT, Inc., Michael Kolen, University of Iowa
**The Effect of Content and Statistical Representation of Common Items on Accuracy of Equating with Non-Equivalent Groups Design**

Poster #16
Sungeun Kim, Ewha Woman's University, Yoonsoo Park, University of Illinois, Chicago, Young-Sun Lee, Teachers College, Columbia University
**An Application of Latent Class Models to Multiple Strategy CDM Analysis**

Poster #17
Lee LaFond, University of Iowa, Kathleen Banks, University of Iowa, Catherine Welch, Iowa Testing Programs
**Exploring Gender Differential Bundle Functioning in an Algebra Readiness Assessment**

Poster #18
Michelle LaMar, University of California, Berkeley
**Identifying Student Conceptions Using a Differential Scoring IRT Mixture Model**

Poster #19
Quinn Lathrop, University of Notre Dame
**A Nonparametric Approach to Classification Accuracy and Consistency**
Poster #20
Sunbok Lee, University of Georgia, Jongmin Ra, University of Georgia
Jeffreys’s Principle for Non-Informative Prior Specification in Bayesian IRT

Poster #21
Yeongju Lee, Ewha Womans University, Boran In, Ewha Womans University, Yoonsoo Park, Teachers College, Columbia University, Youngsun Lee, Teachers College, Columbia University
An Empirical Analysis of Item Parameter Drift in TIMSS Using the DINA Model

Poster #22
Hwang Gyu Lim, Yonsei University, Kyung Sun Kim, Yonsei University, Young Jun Lee, Yonsei University, Guemin Lee, Yonsei University
Comparison of the Standard Error of Equating Using the Bootstrap and Delta Methods Under the Different Equating Form Assumptions

Poster #23
Xiao Luo, University of North Carolina, Greensboro, Xinrui Wang, University of North Carolina, Greensboro, Lauren Fluegge, University of North Carolina, Greensboro
The Multiple-Choice Multiple-Answer Items: Application of Polytomous IRT Model in Multiple-Choice Items

Poster #24
Liyang Mao, Michigan State University, Xuechen Zhou, Michigan State University
The Effect of Common Testlets Selection on Testlet-Based Test Equating

Poster #25
Jessica Marini, Teachers College, Columbia University, Matthew Johnson, Teachers College, Columbia University
Latent Variable Matching: An Item Response Theory Approach to Causal Inference

Poster #26
Kinge Mbella, University of North Carolina, Greensboro
Data Collection Design for Equivalent Groups Equating for Mixed-Format Tests
Sunday, 4:05 p.m.–6:05 p.m., Regency D, J9

Poster #27
Casey Nixon, University of Georgia, Amanda Ferster, University of Georgia, Cigdem Alagoz, University of Georgia, Jonathan Templin, University of Georgia
A Diagnostic Model for GKIDS Performance Ratings

Poster #28
Brian Patterson, Teachers College, Columbia University, Lawrence DeCarlo, Teachers College, Columbia University
Examining the Impact of Examinee-Selected Constructed Response Items in the Context of a Hierarchical Rater Model Using Signal Detection Theory

Poster #29
Jeffrey Patton, University of Notre Dame, Ying Chen, University of Notre Dame
Capitalization on Item Calibration Error in a-Stratified Multistage Adaptive Testing

Poster #30
Hyo Jeong Shin, University of California, Berkeley, Jinnie Choi, University of California, Berkeley
Using the Rater Bundle Model (RBM) and the Hierarchical Rater Model (HRM) for Polytomous Data

Poster #31
Xiaomei Song, Queen’s University
The Effect of a National Education Policy on Language Test Performance: A Fairness Perspective

Poster #32
Anna Topczewski, University of Iowa, Zhongmin Cui, ACT, Inc., David Woodruff, ACT, Inc., Hanwei Chen, ACT, Inc., Yu Fang, ACT, Inc.
A Comparison of Four Linear Equating Methods for the Common-Item Nonequivalent Groups Design Using Simulation Methods

Poster #33
Anne Traynor, Michigan State University
Impeded Attainment: The Role of Graduation Exam Requirements in the High School Diploma Completion of Language Minority Students

Poster #34
Chia-Lin Tsai, University of Missouri, Columbia, Steven Osterlind, University of Missouri, Columbia
Assessing Multilevel Construct Validity with Latent Variable Modeling
Poster #35  
Joshua Tudor, University of Iowa, Shalini Kapoor, University of Iowa, Stephen Dunbar, University of Iowa, Catherine Welch, University of Iowa  
*Mapping the NAEP Performance Levels to the Iowa Standard Score Scale*

Poster #36  
Michelle Vanchu-Orosco, University of Denver  
*A Meta-Regression of Testing Accommodations for Students with Disabilities: Implications for High Stakes Testing*

Poster #37  
Hong Wang, University of Pittsburgh, Yun Tang, University of Pittsburgh, Xiuyuan Zhang, National Board of Osteopathic Medical Examiners  
*A Monte Carlo Comparison of Random-Groups and Common-Item Equating Designs in IRT Equating*

Poster #38  
Min Wang, University of Iowa, Keyu Chen, University of Iowa, Catherine Welch, University of Iowa and Iowa Testing Programs, Stephen Dunbar, University of Iowa and Iowa Testing Programs  
*Validity Support for the Evaluation of College Readiness for English Language Learners, Hispanic and Asian Students*

Poster #39  
Xinrui Wang, University of North Carolina, Greensboro, Xiao Luo, University of North Carolina, Greensboro, Jia Ma, University of North Carolina, Greensboro  
*Simulate Data with Unique Distractor Information: Application of an IRT-Based Data-Simulation Method*

Poster #40  
Yi-Fang Wu, University of Iowa  
*How Weighting Schemes Impact the Equating of Composite Scores*

Poster #41  
Hsiao-Ju Yen, Washington State University, Brian French, Washington State University  
*Evaluating the Effects of Parental Involvement on English Language Learners’ Education Using the Factor Mixture Model*
Poster #42
Anna Zilberberg, James Madison University, Alan Socha, James Madison University, Ha Phan, Pearson, Jadie Kong, Pearson, Leslie Keng, Pearson
The Effects of Matching Type and Sample Size on the Mantel-Haenszel Technique for Detecting Items with DIF
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 Vancouver. Meet in the lobby at 5:45 a.m. Pre-registration is required. Pickup your bib number and sign your liability waiver at the NCME Information Desk, Regency Ballroom A Foyer, anytime prior to the run.

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National Council of State Boards of Nursing, Inc.
Pacific Metrics Corporation
Pearson Educational Measurement
Pearson VUE
Questar Assessment, Inc.
Riverside Publishing
Monday, 8:15 a.m.–10:15 a.m., Plaza Ballroom A, K1

Differential Item and Bundle Functioning – Paper Session

Moderator

Seock-Ho Kim, University of Georgia

Presenters

Insu Paek, Florida State University, Hirotaka Fukuhara, Florida Department of Education
Differential Testlet Effects and Differential Item Functioning

Anthony Albano, University of Minnesota, Michael Rodriguez, University of Minnesota
Multilevel Modeling of Item Parameter Drift

Kimberly Colvin, University of Massachusetts, Amherst, Lisa Keller, University of Massachusetts, Amherst, Mary Zanetti, University of Massachusetts Medical School, An Dinh, University of Massachusetts Medical School
Comparing Small Sample DIF Procedures to Evaluate a Curricular Change

Jose-Luis Padilla, University of Granada, Isabel Benitez, University of Granada, M. Dolores Hidalgo, University of Murcia, Stephen Sireci, University of Massachusetts, Amherst
Can Cognitive Interviewing Help in Interpreting DIF?

Samira Elatia, University of Alberta, Mark Gierl, University of Alberta
Evaluating the Effect of Socio-Linguistic Factors on Translated and/or Adapted Educational Tests in a Bilingual Context

Sangwook Park, Florida State University, Akihito Kamata, University of Oregon
Investigating Unexpectedly Detected Directions in Differential Item Functioning Analysis

Discussant

Yan Liu, University of British Columbia
Advances in Psychometrics – Invited Symposium

Moderator

André A. Rupp, University of Maryland

Presenters

Jonathan Templin, University of Georgia
*Answering the Psychometric Challenges of Measuring Student Progress Longitudinally Through Interim, Formative, and Summative Assessments*

Jean-Paul Fox, University of Twente
*Advances in Bayesian Item Response Modeling: The Role of Priors*

Wim van der Linden, CTB/McGraw-Hill
*Reflections on Multidimensional Response Modeling*

Li Cai, University of California, Los Angeles
*Second-Generation, Multidimensional, and Multilevel Item Response Modeling*

Frank Rijmen, Educational Testing Service
*Gains from Graphs: Estimating Latent Variable Models by Local Computations*

Discussant

Anton Béguin, Cito
Monday, 8:15 a.m.–10:15 a.m., Georgia Room A, K3

Linking and Equating: Technical Advances (II) – Paper Session

Moderator

Marie Wiberg, Umeå University

Presenters

Yong He, University of Missouri, Zhongmin Cui, ACT, Inc., Yu Fang, ACT, Inc., Hanwei Chen, ACT, Inc.
*Using a Linear Regression Method to Detect Outliers in IRT Common Item Equating*

Zhiming Yang, Educational Testing Service, Shelby Haberman, Educational Testing Service, Yi Han, Educational Testing Service
*Comparison Between Haberman’s and Stocking-Lord’s Linking Methods*

In-Hee Choi, University of California, Berkeley, Xueli Xu, Educational Testing Service, Matthias von Davier, Educational Testing Service
*Linking Large-Scale International Assessments over Multiple Cycles*

Yue Liu, National Assessment of Education Quality, Hongyun Liu, Beijing Normal University
*Comparison of MIRT Linking Methods for Different Common Item Designs*

Sarah Gallimore, Virginia Polytechnic Institute and State University, Gary Skaggs, Virginia Polytechnic Institute and State University
*Effect of Sample Size on IRT Equating of Unidimensional Tests in the Common Item Non-Equivalent Groups Design: A Monte Carlo Simulation Study*

Deping Lee, Educational Testing System
*Item Response Theory Linking and Equating Through Simultaneous Scaling*

Discussant

James Carlson, Educational Testing System
COUNCIL OF CHIEF STATE SCHOOL OFFICERS
Linking Scores from Different Assessments: Evaluating Approaches for Comparisons of Different Groups across Different Tests – Invited Symposium

Moderator
Anne Howard, Council of Chief State School Officers

Presenters
Wayne Camara, The College Board
Lauress Wise, Human Resources Research Organization (HumRRO)
Joseph Martineau, Michigan Department of Education
Kristen Huff, Regents Research Fund

Discussant
Hillary Michaels, WestEd
Assessment in the Professions – Paper Session

Moderator
Carrol Morrison Featherman, National Board of Medical Examiners

Presenters
Nilufer Kahraman, National Board of Medical Examiners, Crystal Brown, National Board of Medical Examiners, Jeanette Sanger, National Board of Medical Examiners

A Closer Look at the Psychometric Characteristics of Tasks in a Standardized Patient Examination: Examining Patient-Rater and Clinical Content Related Effects on Task Parameters


Developing and Evaluating Generic Scoring Models for Constructed Response Items in Large-Scale Assessments

Sooyeon Kim, Educational Testing Service, Tim Moses, Educational Testing Service

Determining When Single Scoring for Constructed-Response Items is as Effective as Double Scoring in Licensure Tests

Michael Culbertson, University of Illinois, Urbana-Champaign, Feiming Li, National Board of Osteopathic Medical Examiners

Analyzing Knowledge Structure: An Application of Graphical Models to a Medical Licensure Exam

Marc Kroopnick, Association of American Medical Colleges, Scott Oppler, Association of American Medical Colleges, Dana Dunleavy, Association of American Medical Colleges, Xiaohui Zhao, Association of American Medical Colleges, Amanda Koch, University of Minnesota

Investigating Differential Speededness on the Medical College Admissions Test (MCAT®)

Mark Raymond, National Board of Medical Examiners, Kimberly Swygert, National Board of Medical Examiners, Nilufer Kahraman, National Board of Medical Examiners

Conditional SEMs for Examinees Who Repeat Performance Assessments

Discussant
Elaine Rodeck, Medical Council of Canada
Hierarchical Data Structures: Lessons from Practice – Paper Session

Moderator

Xiaoshu Zhu, University of Maryland, College Park

Presenters

Jing Zhao, The Ohio State University, William Loadman, The Ohio State University, Rael Moore, The Ohio State University, Jian Li, The Ohio State University, Weijia Ren, The Ohio State University, Charles Okonkwo, The Ohio State University

A Hierarchical Linear Modeling Analysis of Incarcerated Youth’s Reading Proficiency

Ze Wang, University of Missouri

Examining the Big-Fish-Little-Pond Effect across 49 Countries: A Multilevel Latent Variable Modeling Approach

Hao Ren, CTB/McGraw-Hill, Dong-In Kim, CTB/McGraw-Hill, Furong Gao, CTB/McGraw-Hill

School Effects on Performance Prediction of Summative Assessment Using Benchmark Assessment

Hyo Jeong Shin, University of California, Berkeley, Yi Du, Data Recognition Corporation, Ron Mead, Data Recognition Corporation

The Persistence of the School Effects Using Different Outcome Variables and Model Specifications

Youhua Wei, Educational Testing Service, Yanxuan Qu, Educational Testing Service

Using Multilevel Analysis to Monitor Test Performance across Administrations

Thakur Karkee, Measurement, Inc., Winnie Reid, Measurement, Inc.

Sensitivity of Sampling Design and Sample Size in the Recovery of Rasch Model Item Parameter Estimates and Resulting Proficiency Classifications

Discussant

Deping Li, Educational Testing Service
Embedded Assessment within Innovative Digital Learning Environments: A Methodological Case Study – Invited Symposium

Organizer
Katie Kunze, Arizona State University

Moderator
Katie Kunze, Arizona State University

Presenters
Robert Mislevy, Educational Testing Service, John Behrens, Cisco, Patti West, Independent Researcher
Evidence Centered Design of Complex Assessment Systems

Shawn Stockford, Sigma Squared Consulting, Ben Babcock, The American Registry of Radiologic Technologists
Weighting Simulated Practical Skill Assessments Using Task Analysis Data

Derek Fay, Arizona State University, Katie Kunze, Arizona State University, Aaron Crawford, Arizona State University, Roy Levy, Arizona State University
Analysis of PTSBA Product Data Using Exploratory Dimensionality Assessment Techniques

Shauna Sweet, University of Maryland, Aaron Crawford, Arizona State University, Derek Fay, Arizona State University, Katie Kunze, Arizona State University, Roy Levy, Arizona State University
Confirmatory Modeling and Data-Model Fit Techniques for Assessments Embedded in Digital Learning Environments

Taigo Calico, University of Maryland, Kristen DiCerbo, Independent Researcher
Making Inferences from Log File Data

Patti West, Independent Researcher, Kristen DiCerbo, Independent Researcher
Reporting Results of Complex Assessments to Students and Teachers
Testlet Effects: Theory & Practice – Paper Session

Moderator

Ru Lu, Educational Testing Service

Presenters

Wei Tao, ACT, Inc., Yu-Lan Su, University of Iowa
*Setting Up Critical Values for Identifying Local Dependence Using the Testlet Model*

Wen-Chung Wang, The Hong Kong Institute of Education, Kuan-Yu Jin, The Hong Kong Institute of Education
*Do We Need Testlet Response Models if We are Interested in Person Measure Only?*

Wei He, Northwest Evaluation Association, Feifei Li, Educational Testing Service, Edward Wolfe, Pearson, Xia Mao, Pearson
*Model Selection for Equating Testlet-Based Tests in the Neat Design: An Empirical Study*

Tsung-Han Ho, Educational Testing Service, Zhan Shu, Educational Testing Service
*New Hybrid Item Selection Procedures for an Adaptive Test Based on the Testlet Response Theory Model*

Mark Hansen, University of California, Los Angeles, Li Cai, University of California, Los Angeles
*The Potential of Local Dependence Diagnostics to Inform or Mislead*

Discussant

Walter D. Way, Pearson
The Qualities of Quality in Classroom Assessment – Innovative Format Session

Organizer
Sarah Bonner, Hunter College, CUNY

Moderator
Jay Parkes, University of New Mexico

Presenters
Sarah Bonner, Hunter College, CUNY
*Validating Interpretations and Actions Based on Classroom Assessments*

Jay Parkes, University of New Mexico
*The Value and Values of Reliability of Classroom Assessment*

Robin Tierney, University of Ottawa
*Fairness in Classroom Assessment*

Bruce Randel, McRel, Tedra Clark, McRel
*Measuring Quality in Classroom Assessment*

Discussants
Susan Brookhart, Duquesne University
Michael Kane, Educational Testing Service
GRADUATE STUDENT ISSUES COMMITTEE
Emerging Issues in Graduate Student Preparation and the Work of New Professionals – Invited Symposium

National education reform efforts in the United States (e.g., Common Core State Standards Initiative, PARCC and SMARTER Balanced common assessments, ESEA reauthorization) have the potential to lead to significant shifts in measurement policy and practice. Panelists will discuss what is happening as a result of these various initiatives and what it all means for students who are preparing their programs of study and building skills to become employable. Perspectives from state departments of education, academia, and both large and small testing companies will be provided.

**Moderator**

Chad Gotch, Washington State University

**Panelists**

Phoebe Winter, Pacific Metrics Corporation

Brian Gong, National Center for the Improvement of Educational Assessment

Derek Briggs, University of Colorado

Dianne Henderson-Monterro, Educational Testing Service
Design Issues in Equating Studies Using Simulation and Resampling –
Coordinated Session

Organizer

James Carlson, Educational Testing Service

Moderator

Mark Reckase, Michigan State University

Presenters

Michael Walker, Educational Testing Service
*Toward More Principled Simulations*

Neil Dorans, Educational Testing Service
*Simulations are Deductive Demonstrations not Empirical Experiments*

Samuel Livingston, Educational Testing Service
*Keeping it Real*

James Carlson, Educational Testing Service
*Issues in Comparability of Anchor Item Sets in Comparative Studies with Implications for Research and Practice*

Discussants

Nancy Petersen, ACT, Inc.
Mark Reckase, Michigan State University
Monday, 10:35 a.m.–12:05 p.m., Oxford, L6

Rater Effects: Lessons from Practice – Paper Session

Moderator

Mark Raymond, National Board of Medical Examiners

Presenters


Examining the Effect of Prompt Complexity on Rater Behavior: A Mixed-Methods Application to GRE Analytical Writing Measure

Andre De Champlain, Medical Council of Canada, William Roberts, National Board of Osteopathic Medical Examiners

Evaluating the Impact of Judge Characteristics in a Standard Setting Exercise of a Large-Scale Medical Licensure Performance Assessment: An Application of Hierarchical Generalized Linear Modeling

Moonsoo Lee, University of California, Los Angeles

A Comparison of Generalizability Theory and Many Facet Rasch Model Approaches with Focusing on Interaction Effects

Xiaohong Gao, ACT, Inc., Fanmin Guo, Graduate Management Admission Council, Robert Brennan, University of Iowa

Modeling Measurement Facets and Assessing Generalizability of the GMAT Analytical Writing Assessment

Kevin Raczynski, University of Georgia

Detection of Essay Characteristics Associated with Examinee Misfit: Implications for Rater Training in a Large-Scale Writing Assessment

Discussant

Zhen (Jane) Wang, Educational Testing Service
Monday, 12:25 p.m.–1:55 p.m., Plaza Ballroom A, M1

Symposium on Technology Enhanced Assessments – Invited Symposium

Organizer
Pascal Forgione Jr., Center for K-12 Assessment & Performance Management at ETS

Moderator
Pascal Forgione Jr., Center for K-12 Assessment & Performance Management at ETS

Presenters
Kristen DiCerbo, Cisco Networking Academy, John Behrens, Cisco Networking Academy
*Technology Enhanced Assessments in the Cisco Networking Academy*

Ken Koedinger, Carnegie Mellon University
*Assistments and Intelligent Tutors*

Valerie Shute, Florida State University, Matthew Ventura, Florida State University, Yoon Jeon Kim, Florida State University
*Developing and Evaluating Stealth Assessments for 21st Century Competencies*

Nancy Doorey, K-12 Center at ETS
*Emerging and Innovative Technology Enhanced Assessments: A Look Over the Horizon*

Discussants
Robert Torres, Bill & Melinda Gates Foundation
David Williamson, Educational Testing Service
Monday, 12:25 p.m.–1:55 p.m., Plaza Ballroom B, M2

Advanced Psychometric Models for Situational Judgment Tests – Coordinated Session

Organizers

Jonas Bertling, Educational Testing Service
Patrick Kyllonen, Educational Testing Service

Moderator

Jonas Bertling, Educational Testing Service

Presenters

Carolyn MacCann, The University of Sydney, Richard Roberts, Educational Testing Service
*Validity Evidence for Different Scoring Techniques in SJTs: An Empirical Examination with the Situational Judgment Test of Emotion Management (STEM)*

*The Nominal Response Model as a Method to Score Situational Judgment Tests*

*The Latent Class Model as a Measurement Model for Situational Judgment Tests*

Steven Stemler, Wesleyan University
*Scoring the Ethical Priority Test – Identification of Value Profiles by a Mixture Modeling Approach*

Discussant

Jacqueline Leighton, University of Alberta
Unidimensional IRT: Technical Advances – Paper Session

Moderator

Joseph Patrick Meyer, University of Virginia

Presenters

Christy Jenkins, University of Georgia, Jonathan Templin, University of Georgia, Allan Cohen, University of Georgia

Stephen Cubbellotti, Fordham University, Ying Liu, Fordham University
Item Parameter Recovery of Dichotomous Items for the Rasch Model: IRT Program Showdown

Litong Zhang, CTB/McGraw-Hill, Jessalyn Smith, CTB/McGraw-Hill, Joanna Tomkowicz, CTB/McGraw-Hill, Brian Habing, University of South Carolina
The Effects of Test Length on Scoring Methods and Scale Score Distributions

Natalie Koziol, University of Nebraska, Lincoln, Jonathan Templin, University of Georgia
Quantifying the Impact of Misusing Examinee Latent Variable Estimates in Item Response Models

Jodi Casabianca, Carnegie Mellon University/RAND, Charles Lewis, Fordham University

Discussant

William Skorupski, University of Kansas
Principled Approaches to Assessment: Putting Theories into Practice – Coordinated Session

Organizer
Matthew Burke, American Institute of Certified Public Accountants

Moderator
Michael S. Finger, American Institute of Certified Public Accountants

Presenters
Richard Luecht, University of North Carolina, Greensboro
Assessment Engineering Task Model Maps, Task Models and Templates as a New Way to Develop and Implement Test Specifications

Stephen Luebke, Law School Admission Council, James Lorie, Law School Admission Council
Use of Bloom’s Taxonomy in Developing Reading Comprehension Specifications

Evidence-Centered Assessment Design in Practice

Matthew Burke, American Institute of Certified Public Accountants, Richard Devore, American Institute of Certified Public Accountants, Joshua Stopek, American Institute of Certified Public Accountants
Incorporating Assessment Engineering into an Operational Licensure Examination

Discussants
Barbara Plake, University of Nebraska, Lincoln
Gregory J. Cizek, University of North Carolina, Chapel Hill
Implications of Difficulty Modeling for Test Creation: Scalability, Security and Validity – Coordinated Session

Organizer
Isaac Bejar, Educational Testing Service

Moderator
Isaac Bejar, Educational Testing Service

Presenters
Isaac Bejar, Educational Testing Service
Construct Representation and Preservation Through Item Generation

Rene Lawless, Educational Testing Service, Paul Deane, Educational Testing Service
Modeling the Difficulty of Vocabulary Items

Kathleen Sheehan, Educational Testing Service
Cognitive- Based Modeling of Reading Stimuli

Brent Bridgeman, Educational Testing Service, Catherine Trapani, Educational Testing Service
Comparability of Essay Question Variants: Comparison of Results from High- and Low-Stakes Tests

Discussants
Susan Embretson, Georgia Institute of Technology
Kristen Huff, Regents Research Fund
Reliability and Standard Error Estimation – Paper Session

Moderator

Alvaro Arce-Ferrer, Pearson

Presenters

Tae Hun Lee, University of California, Los Angeles, Mark Hansen, University of California, Los Angeles, Yang Jiseung, University of California, Los Angeles, Li Cai, University of California, Los Angeles
Variability of Estimates in Generalizability Theory: A Simulation Based Confidence Interval for Reliability Coefficients

Steven Culpepper, University of Colorado, Denver
The Reliability of Teacher Value-Added Effects in the Presence of Measurement Bias and Student Tracking

Jeffrey Patton, University of Notre Dame, Ying Cheng, University of Notre Dame
Standard Error Estimation in IRT: Bootstrap or Formula?

Jinnie Choi, University of California, Berkeley
An Evaluation of GLLAMM Approach to Generalizability in Item Response Modeling

Yasuo Miyazaki, Virginia Polytechnic Institute and State University
A Simulation Study on Appropriate Transformations of Reliability Coefficient in Multilevel Meta-Analysis Models

Louis Roussos, Measured Progress, Inc., Tyler Lonczak, Measured Progress, Inc., Zhushan Li, Boston College
A Nonparametric Conditional Standard Error of Measurement for Use in Alternate Assessments and in Checking IRT Assumptions

Discussant

Xiaohong Gao, ACT, Inc.
Innovative Approaches to Identifying Sources of Differential Item Functioning – Coordinated Session

Organizer
Raman Grover, University of British Columbia

Moderator
Kadriye Ercikan, University of British Columbia

Presenters
Wolff-Michael Roth, Griffith University, Maria Elena Oliveri, University of British Columbia, Debra Sandilands, University of British Columbia, Juliette Lyons-Thomas, University of British Columbia, Kadriye Ercikan, University of British Columbia

Tracking the Sources of DIF Using Expert Think-Aloud Protocols
Stephanie Barclay-McKeown, University of British Columbia, Maria Elena Oliveri, University of British Columbia, Debra Sandilands, University of British Columbia

Investigating Sources of Differential Item Functioning in the Deep Learning Items in the National Survey of Student Engagement (NSSE)
Raman Grover, University of British Columbia, Kadriye Ercikan, University of British Columbia

Within Gender Group Heterogeneity and Sources of Gender DIF
Maria Elena Oliveri, University of British Columbia, Kadriye Ercikan, University of British Columbia, Bruno Zumbo, University of British Columbia

Identifying Sources of Latent Class DIF
Bruno Zumbo, University of British Columbia, Yan Liu, University of British Columbia, Benjamin Shear, University of British Columbia, Oscar Olvera, University of British Columbia, Tavinder Ark, University of British Columbia

Latent Class Logistic Regression Family of Models and Its Applications to Explanatory DIF

Discussant
Stephen Sireci, University of Massachusetts
Monday, 2:15 p.m.–3:45 p.m., Plaza Ballroom B, N2

Standard Setting – Paper Session

Moderator

Michael Beck, Questar Assessment, Inc.

Presenters

A Modified Body of Work Standard-Setting Method with Construct Maps

Mingchuan Hsieh, National Academy for Educational Research, Taiwan
Evaluating the Quality of Standard Setting Procedure using Multifaceted Rasch Approach

Susan Davis-Becker, Alpine Testing Solutions, Russell Smith, Alpine Testing Solutions

Brian Clauser, National Board of Medical Examiners, Jerome Clauser, University of Massachusetts, Amherst
An Examination of the Replicability of Angoff Standard Setting Results within a Generalizability Theory Framework

Katie McClarty, Pearson, Daniel Murphy, Pearson, Leslie Keng, Pearson, Ahmet Turhan, Pearson, Ye Tong, Pearson
Putting Ducks in a Row: Methods for the Empirical Alignment of Performance Standards

Brett Foley, Alpine Testing Solutions, Deirdre Lupher, Alpine Testing Solutions
Evaluating the Stability of Cut Scores Over Time in a Statewide Assessment System

Discussant

Marianne Perie, Center for Assessment
Monday, 2:15 p.m.–3:45 p.m., Georgia Room A, N3

Advances in Automated Scoring Reliability – Coordinated Session

Organizer
Lei Yu, Pacific Metrics Corporation

Moderator
Lei Yu, Pacific Metrics Corporation

Presenters
Susan Lottridge, Pacific Metrics Corporation, Howard C. Mitzel, Pacific Metrics Corporation
*The Results of Using an Automated Scoring Engine to Detect and Monitor Rater Performance in Essay Scoring*

Peter Foltz, Pearson, Karen Lochbaum, Pearson, Laurie Davis, Pearson
*Increasing Reliability Throughout the Automated Scoring Development Process*

Lei Yu, Pacific Metrics Corporation, Scott Wood, Pacific Metrics Corporation, Phoebe Winter, Pacific Metrics Corporation
*Investigating Automated Scoring Consistency for Students of Special Groups*

*The Reliability of Scoring Short-Text Responses for Correct Content: Can Humans Really Outperform a Computer Armed with Natural Language Processing Capabilities?*

Alan Nicewander, Pacific Metrics Corporation
*A Comparison of Item Parameter and Item Reliability Estimates for Short Answer and Essay Items Scored by Human Raters and Automated Scoring*

Discussants
Mark Shermis, The University of Akron
Walter D. Way, Pearson
Monday, 2:15 p.m.–3:45 p.m., Georgia Room B, N4

Technical Issues in Development and Implementation of Computerized Adaptive Test in K-12 Assessments – Coordinated Session

Organizer
Liru Zhang, Delaware Department of Education

Moderator
Liru Zhang, Delaware Department of Education

Presenters
Marty McCall, Smarter Balance Assessment Consortium  
*Technical Issues in Developing Computerized Classification Test (CCT)*

David Chayer, Data Recognition Corporation, Pam Hermann, Data Recognition Corporation, Mayuko Simon, Data Recognition Corporation, Yi Du, Data Recognition Corporation  
*Field-Test Items Calibration in CAT: Approaches and Implications to Practice in State Assessment Programs*

Shudong Wang, Northwest Evaluation Association, Hong Jiao, University of Maryland  
*Examine Construct Validity of Computerized Adaptive Test in K-12 Assessments*

Liru Zhang, Delaware Department of Education, Shudong Wang, Northwest Evaluation Association  
*Using Computerized Adaptive Test to Determine Student Growth*

Discussants
Steven Wise, Northwest Evaluation Association  
Tim Davey, Educational Testing Service
Monday, 2:15 p.m.–3:45 p.m., Balmoral, N5

Rater Effects: Technical Advances – Paper Session

Moderator
YoungKoung Kim, The College Board

Presenters
Zhen (Jane) Wang, Educational Testing Service, Lihua Yao, Defense Manpower Data Center
Investigation of the Effects of Scoring Designs and Rater Severity on Students’ Ability Estimation Using Different Rater Models

Adrienne Sgammato, Educational Testing Service
Using Tests of Marginal Homogeneity as a Measure of Rater Agreement in NAEP

Yoon Soo Park, University of Illinois, Chicago, Jilliam Joe, Educational Testing Service, Jean Williams, Educational Testing Service
Investigating a Mixture Extension of the Latent Class Signal Detection Theory Model for Differential Rater Functioning

Lidia Dobria, Wilbur Wright College
A Semiparametric Approach to Modeling Rater Severity Drift

Discussant
Andre De Champlain, Medical Council of Canada
Monday, 2:15 p.m.–3:45 p.m., Oxford, N6

Unidimensional IRT: New Models – Paper Session

Moderator

Michael Jodoin, National Board of Medical Examiners

Presenters

Chao Xie, University of Maryland, College Park, Hong Jiao, University of Maryland, College Park, George Macready, University of Maryland, College Park
Multidimensional Four-Parameter Logistic Item Response Theory Model

Laine Bradshaw, James Madison University, Jonathan Templin, University of Georgia
A Two Parameter Asymptote IRT Model for Binary Data

Hung-Yu Huang, Taipei Municipal University of Education, Wen-Chung Wang, Hong Kong Institute of Education
The Multilevel Higher-Order Item Response Theory Model

Kuan-Yu Jin, Hong Kong Institute of Education, Wen-Chung Wang, Hong Kong Institute of Education
The Item Response Model for Performance Decline During Testing

Yongsang Lee, Korea Institute for Curriculum and Evaluation, Mark Wilson, University of California, Berkeley
A Multidimensional Model with Internal Factors for Componential Structure of Data

Discussant

Hariharan Swaminathan, University of Connecticut
Monday, 4:05 p.m.–6:05 p.m., Plaza Ballroom A, O1

Application of Natural Language Processing Techniques in Reading Assessments – Coordinated Session

Organizer
Changjiang Wang, Pearson

Moderator
Kirk Becker, Pearson

Presenters

SourceRater: An Automated Approach for Generating Text Complexity Classifications Aligned with the Common Core State Standards

Thomas Landauer, Pearson, Kirill Kireyev, Pearson, Charles Panaccione, Pearson

The Word Maturity Metric

Changjiang Wang, Pearson, Xiaofei Lu, The Pennsylvania State University

Exploring the Use of Natural Language Processing Techniques to Generate Test Items for Reading Assessments

A. Jackson Stenner, MetaMetrics, Carl Swartz, MetaMetrics

A Causal Rasch Model for Understanding Comprehension in the Context of Reader-Text-Task


Linguistically-Fortified Instructional Authoring for Teachers of English Learners

Barbara A. Badgett, Alpine Testing Solutions, Alice J. Corkill, University of Nevada, Las Vegas

Toward the Development of a Measurement Model Suitable for Establishing the Readability of Credentialing Examination Items: The Exploration of Variables to Accommodate the Specialized Textual Format and Content

Discussant
Donald Leu, University of Connecticut
Monday, 4:05 p.m.–6:05 p.m., Plaza Ballroom B, O2

Status and Growth for Accountability – Paper Session

Moderator

Derek Briggs, University of Colorado, Boulder

Presenters

Katherine Furgol Castellano, University of California, Berkeley
Contrasting Normative Group Growth Measures

Kimberly Marsh, James Madison University, Carol Barry, The College Board, Dena Pastor, James Madison University, Thanos Patelis, The College Board
Is Change in Participation Related to Change in Performance? An Application of Simultaneous Growth Modeling

Susan Embretson, Georgia Institute of Technology, John Poggio, University of Kansas
An Evaluation of Select Psychometric Models to Monitor Growth in Student Achievement

John Denbleyker, Minnesota Department of Education, Shuqin Tao, Data Recognition Corporation
Measuring Cross-Test Achievement Gaps: A Bayesian Approach Using Effect-Size

Mark Reckase, Michigan State University, Eun Hye Ham, Michigan State University
What Can Be Learned from Simulation Studies of Value-Added Models?

Discussant

Damian Betebenner, Center for Assessment
Score Reporting, Interpretation, and Validation – Paper Session

Moderator

April Zenisky, University of Massachusetts, Amherst

Presenters

Rebecca Zwick, Educational Testing Service, Diego Zapata-Rivera, Educational Testing Service, Mary Hegarty, University of California, Santa Barbara
Comparing Graphical and Verbal Representations of Measurement Error in Test Score Reports

Xueming Li, University of Massachusetts, Amherst, Stephen Sireci, University of Massachusetts, Amherst
Analyzing Alignment Data Using Multidimensional Scaling

Natalija Curkovic, National Centre for External Evaluation of Education, Croatia
Which Cognitive Levels Do Knowledge Tests Really Measure? Comparison of Students, Teachers, and Test Makers Perspectives

Meiko Lin, Teachers College, Columbia University, Madhabi Chatterji, Teachers College, Columbia University
Tackling Errors Using a Multi-Stage Validation Approach for Survey-Based Construct Measures

Gretchen Anderson, University of Kansas, Neal Kingston, University of Kansas
Providing Useful Information to Guide Student Learning: A Review of State Level Individual Score Reports (Parent Letters)

Craig Waterman, University of Connecticut
Validating the Use of Multiple Measures in Teacher Evaluation

Discussant

Stanley Rabinowitz, WestEd
Monday, 4:05 p.m.–6:05 p.m., Georgia Room B, O4

Contrasting State-of-the-Art in Automated Scoring of Essays – Coordinated Session

Organizer

Mark Shermis, The University of Akron

Moderator

Mark Shermis, The University of Akron

Presenters

Lawrence Rudner, Graduate Management Admission Council

Overview and Context

David Williamson, Educational Testing Service
e-rater

Susan Lottridge, Pacific Metrics Corporation
TruScore

Shayne Miel, Measurement, Inc.
PEG

Peter Foltz, Pearson Knowledge Technologies
Intelligent Essay Assessor

Matthew Schultz, Vantage Learning
Intellimetric

Mark Shermis, The University of Akron
Contrasting State-of-the-Art in Automated Scoring of Essays: Analysis

Discussant

Jeff Nellhaus, Partnership for Assessment of Readiness for College and Careers
Approaches to Develop, Study, and Use Instructionally Sensitive Assessments – Coordinated Session

Organizer
Maria Araceli Ruiz-Primo, University of Colorado, Denver

Moderator
Maria Araceli Ruiz-Primo, University of Colorado, Denver

Presenters
Maria Araceli Ruiz-Primo, University of Colorado, Denver, Min Li, University of Washington, Seattle, Michael Giamellaro, University of Colorado, Denver
An Approach to Develop and Evaluate Assessments at Different Distances of a Curriculum

Jim Popham, University of California, Los Angeles, Joseph Ryan, Arizona State University
A Practical, Low-Cost Procedure for Detecting the Instructional Sensitivity of Items

Morgan Polikoff, University of Southern California, Andrew Porter, University of Pennsylvania, John Smithson, University of Wisconsin, Madison
Comparing the Instructional Sensitivity of State Assessments and Off-the-Shelf Measures of Student Learning: Evidence from the Measures of Effective Teaching Project

Min Li, University of Washington, Seattle, Maria Araceli Ruiz-Primo, University of Colorado, Denver, Kellie Wills, University of Washington, Seattle
Comparing Methods to Estimate the Instructional Sensitivity of Items

Marsha Ing, University of California, Riverside
Using Instructional Sensitivity and Instructional Opportunities to Interpret Students’ Mathematics Performance

Discussants
Richard Shavelson, Stanford University
Laura Hamilton, RAND Corporation
Monday, 4:05 p.m.–6:05 p.m., Oxford, O6

Applied Measurement Studies (II) – Paper Session

Moderator

Leslie Rutkowski, Indiana University

Presenters

Per-Erik Lyrén, Umeå University
*The Value of Reporting Subscores from the New SweSAT*

Shu Jing Yen, Center for Applied Linguistics, Ying Zhang, IMPAQ International, LLC, David MacGregor, Center for Applied Linguistics
*Using Explanatory Item Response Models to Analyze Linguistic Features of an Academic Language Assessment*

Yujie Jia, University of California, Los Angeles
*Using Multivariate Generalizability Theory to Investigate the Dependability of a Computer-Based Oral Test*

Joseph Stevens, University of Oregon, Keith Zvoch, University of Oregon, Marie-Hélène Véronneau, University of Québec, Montreal
*Analysis and Interpretation of Hybrid Regression Discontinuity Designs*

Yuan Zhang, University of Maryland, College Park, Shu Jing Yen, Center for Applied Linguistics, Dorry Kenyon, Center for Applied Linguistics
*The Effect of Sampling Strategy on the Stability of Equating for an Academic Language Assessment*

Jerome De Lisle, University of the West Indies, St. Augustine
*Installing a System of Performance Standards for National Learning Assessments in the Republic of Trinidad and Tobago, 2005 to 2010: Issues and Challenges*

Discussant

Howard Everson, City University of New York
NCME Board of Directors Meeting

Members of NCME are invited to attend as observers.
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