

## PROGRAM

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Training Sessions  
March 23 - 24, 2008

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2008 Annual Meeting  
March 25 - 27, 2008

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New York City

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The National Council on Measurement in Education  
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generous financial support of our 2008 Annual Meeting.



Evaluation Systems



*Creating Access to Graduate Business Education*™



# 2008 NCME Annual Meeting • Schedule-at-a-Glance

TIME	LOCATION	TYPE	SESSION ID	TITLE
<b>Sunday, March 23, 2008</b>				
8:00 a.m. - 12:00 noon	Times Square Ballroom B	TS	AA	Linking and Aligning Scores and Scales
8:00 a.m. - 12:00 noon	Room 405-406	TS	BB	Nonlinear Mixed Models Approach to Item Response Theory
8:00 a.m. - 5:00 p.m.	Room 401-402	TS	CC	Developing Noncognitive Assessments
8:00 a.m. - 5:00 p.m.	Times Square Ballroom A	TS	DD	Student Involvement and Formative Feedback in Classroom Assessment: Measurement Concepts and Issues
8:00 a.m. - 5:00 p.m.	Room 403-404	TS	EE	Item Response Theory: Parameter Estimation Techniques
1:00 p.m. - 5:00 p.m.	Times Square Ballroom B	TS	FF	Test Security: Practices, Policies, and Punishment
1:00 p.m. - 5:00 p.m.	Room 405-406	TS	GG	An Introduction to the Application of BMIRT: Bayesian Multivariate Item Response Theory Software
<b>Monday, March 24, 2008</b>				
8:00 a.m. - 12:00 noon	Room 406	TS	HH	Writing Diagnostic Items
8:00 a.m. - 12:00 noon	Room 501	TS	II	Skills Diagnosis with Latent Variable Models
8:00 a.m. - 12:00 noon	Room 403-404	TS	JJ	Exploring the Validity of State Accountability Systems
8:00 a.m. - 5:00 p.m.	Times Square Ballroom C	TS	KK	Test Equating Methods and Practices
8:00 a.m. - 5:00 p.m.	Room 502	TS	LL	Applying Hierarchical Models to Causal Inference
8:00 a.m. - 5:00 p.m.	Room 401-402	TS	MM	Considerations in Setting Performance Standards
8:00 a.m. - 5:00 p.m.	Room 405	TS	NN	Bayesian Networks in Educational Assessment
1:00 p.m. - 5:00 p.m.	Room 406	TS	OO	ICL and ETIRM: Open Source IRT Estimation Software for Researchers
1:00 p.m. - 5:00 p.m.	Room 501	TS	PP	Building and Documenting a Valid Assessment System for Students with Disabilities: Psychometric and Practical Considerations for Alternate and Modified Assessments
1:00 p.m. - 5:00 p.m.	Room 403-404	TS	QQ	Tips for Graduate Students: Advice for Finishing School, Obtaining a Job, and Starting a Career
4:00 p.m. - 7:00 p.m.	Room 1507			NCME Board of Directors Meeting

“Type of Program” Key:

CS - Coordinated Session

TS - Training Session

PS - Paper Session

Inv - Invited Symposia

Poster - Poster Session

TIME	LOCATION	TYPE	SESSION ID	TITLE
Tuesday, March 25, 2008				
8:15 a.m. - 10:15 a.m.	Broadway Ballroom Act II	Inv	A1	Open Hearing on Revising the 1999 Standards for Educational and Psychological Testing
8:15 a.m. - 10:15 a.m.	Room 501-502	CS	A2	Profile Analysis via Multidimensional Scaling (PAMS): Introduction, Applications, and Implications for Future Research
8:15 a.m. - 10:15 a.m.	Room 405-406	PS	A3	Topics in Test Alignment
8:15 a.m. - 10:15 a.m.	Room 401-402	PS	A4	Assessing Differential Item Functioning Using Complex Models
8:15 a.m. - 10:15 a.m.	Room 403-404	PS	A5	Topics in Standard-Setting
10:35 a.m. - 12:05 p.m.	Broadway Ballroom Act II	Inv	B1	Professional Development Programs in Formative Classroom Assessment: Do Changes in Teacher Practice Improve Student Achievement?
10:35 a.m. - 12:05 p.m.	Room 501-502	CS	B2	Examining Validity Evidence in the Academic Assessment and Accommodations for English Language Learners
10:35 a.m. - 12:05 p.m.	Room 405-406	PS	B3	Investigations and Extensions of Differential Item Functioning Models
10:35 a.m. - 12:05 p.m.	Room 401-402	PS	B4	Effects of Confounding Variables
10:35 a.m. - 12:05 p.m.	Room 403-404	PS	B5	Approaches to Establishing Comparability
12:25 p.m. - 1:55 p.m.	Broadway Ballroom Act II	Inv	C1	Dualities of Validity in an International Context
12:25 p.m. - 1:55 p.m.	Room 501-502	CS	C2	Off-the-Shelf Tests and NCLB
12:25 p.m. - 1:55 p.m.	Room 405-406	PS	C3	Analyses of Differential Item Functioning
12:25 p.m. - 1:55 p.m.	Room 401-402	PS	C4	Advances in Cognitive Diagnostic Modeling
12:25 p.m. - 1:55 p.m.	Room 403-404	PS	C5	Issues in Testing English Language Learners
2:15 p.m. - 3:45 p.m.	Broadway Ballroom Act II	Inv	D1	The Intersection of Accountability and Measurement: Policy and Psychometrics
2:15 p.m. - 3:45 p.m.	Room 501-502	CS	D2	Kernel Equating: Methodological Extensions and Competitors
2:15 p.m. - 3:45 p.m.	Room 405-406	PS	D3	Cognitive Diagnostic Assessment: Models and Issues
2:15 p.m. - 3:45 p.m.	Room 401-402	PS	D4	Building Adaptive and Other Computer-Based Tests
2:15 p.m. - 3:45 p.m.	Room 403-404	PS	D5	Testing Accommodations and Dimensionality Issues for Special Populations
4:05 p.m. - 6:05 p.m.	Broadway Ballroom-Act II	Inv	E1	Future Directions for the Field of Educational Measurement
4:05 p.m. - 6:05 p.m.	Room 501-502	CS	E2	Practical Psychometric Issues Encountered in Administering a Mixed-Format Test
4:05 p.m. - 6:05 p.m.	Room 405-406	PS	E3	Classification Accuracy and Consistency
4:05 p.m. - 6:05 p.m.	Room 401-402	PS	E4	Methods of Improving Test Security

TIME	LOCATION	TYPE	SESSION ID	TITLE
<b>Tuesday, March 25, 2008 - continued</b>				
4:05 p.m. - 6:05 p.m.	Room 403-404	PS	E5	Growth Modeling: Policy, Applications, and Special Populations
6:15 p.m. - 7:30 p.m.	Times Square Ballroom		No-Host Welcome Reception for Current and New Members	
<b>Wednesday, March 26, 2008</b>				
8:00 a.m. - 10:15 a.m.	Broadway Ballroom		NCME Breakfast, Business Meeting and Presidential Address	
10:35 a.m. - 12:05 p.m.	Times Square Ballroom C	Inv	F1	Schrödinger's Cat, Rasch's P and the Most Dangerous Equation
10:35 a.m. - 12:05 p.m.	Room 501-502	CS	F2	Current Practices In Standard Setting: Illustrations from a Range of Testing Programs
10:35 a.m. - 12:05 p.m.	Rooms 403-404	PS	F3	Effects of Anchor Test Characteristics
10:35 a.m. - 12:05 p.m.	Room 405-406	PS	F4	Approaches to Test Assembly
10:35 a.m. - 12:05 p.m.	Room 401-402	PS	F5	Approaches to Construct Validation
12:25 p.m. - 1:55 p.m.	Times Square Ballroom C	Inv	G1	Accessibility, Comparability, and Validity: Evaluating Test Score Equivalence across Test Forms and Subpopulations
12:25 p.m. - 1:55 p.m.	Room 501-502	CS	G2	The NCLB Growth Model Pilot Program: Consequences and Alternatives
12:25 p.m. - 1:55 p.m.	Rooms 403-404	PS	G3	Differential Item Functioning Detection: New Procedures and Comparisons
12:25 p.m. - 1:55 p.m.	Room 405-406	PS	G4	Test-Taking Effort and Response Time
12:25 p.m. - 1:55 p.m.	Room 401-402	PS	G5	Issues in Essay Scoring
2:15 p.m. - 3:45 p.m.	Times Square Ballroom C	Inv	H1	English Language Learners and NCLB 101
2:15 p.m. - 3:45 p.m.	Room 501-502	CS	H2	Flexible Analysis Strategies for Cognitive Diagnosis
2:15 p.m. - 3:45 p.m.	Rooms 403-404	PS	H3	Alternative Methods of Equating Using Common Items
2:15 p.m. - 3:45 p.m.	Room 405-406	PS	H4	Item Difficulty and Information
2:15 p.m. - 3:45 p.m.	Room 401-402	PS	H5	Multidimensional Models and Extensions
4:05 p.m. - 6:05 p.m.	Times Square Ballroom C	Inv	I1	Policy, Technical, and Operational Issues for School Accountability on Growth
4:05 p.m. - 6:05 p.m.	Room 501-502	CS	I2	Dissecting the Bookmark Standard Setting Procedure
4:05 p.m. - 6:05 p.m.	Rooms 403-404	PS	I3	Dimensionality and Local Item Dependence
4:05 p.m. - 6:05 p.m.	Room 405-406	PS	I4	Current Challenges in Equating
4:05 p.m. - 6:05 p.m.	Room 401-402	PS	I5	Issues in Computer-Based Testing
4:05 p.m. - 6:05 p.m.	Broadway Ballroom Act IV	Poster	I6	Graduate Student Poster Session

TIME	LOCATION	SESSION TYPE	ID	TITLE
<b>Thursday, March 27, 2008</b>				
5:45 a.m. - 7:30 a.m.	Crowne Plaza Times Square Hotel Lobby			NCME Fitness Run/Walk
8:15 a.m. - 10:15 a.m.	Times Square Ballroom C	Inv	J1	Cutting Edge Indicators of Educational Quality for Predicting Global Competitiveness
	Room 405-406	CS	J2	Different Facets of Test Equity and Fairness: Differential Prediction, Differential Item Functioning and Score Equity Assessment
8:15 a.m. - 10:15 a.m.	Room 401-402	PS	J3	Measures of Differential Item Functioning
8:15 a.m. - 10:15 a.m.	Room 403-404	PS	J4	Generalizability Models and Raters
8:15 a.m. - 10:15 a.m.	Rooms 501-502	PS	J5	Procedures for Assessing IRT Model Fit
10:35 a.m. - 12:05 p.m.	Times Square Ballroom C	PS	K1	Growth Modeling Approaches and Applications
10:35 a.m. - 12:05 p.m.	Room 405-406	CS	K2	Equity and Comparability In International Large Scale Assessments: Issues Related To Language And Curriculum Differences
10:35 a.m. - 12:05 p.m.	Room 401-402	PS	K3	Detecting Differential Item Functioning
10:35 a.m. - 12:05 p.m.	Room 403-404	PS	K4	Scaling and Equating Polytomous Items
10:35 a.m. - 12:05 p.m.	Rooms 501-502	PS	K5	Parameter Drift: Issues and Models
12:25 p.m. - 1:55 p.m.	Times Square Ballroom C	PS	L1	Item Response Theory: Models and Procedures
12:25 p.m. - 1:55 p.m.	Room 405-406	CS	L2	The Educational Measurement Profession In 2007: What Is The State of Our Union?
12:25 p.m. - 1:55 p.m.	Room 401-402	PS	L3	Testlet Models: Alternative Parameterizations and Uses
12:25 p.m. - 1:55 p.m.	Room 403-404	PS	L4	Topics in Vertical Scaling
12:25 p.m. - 1:55 p.m.	Rooms 501-502	PS	L5	Modifications and Applications of Standard-Setting Procedures
2:15 p.m. - 3:45 p.m.	Times Square Ballroom C	PS	M1	Dimensionality: Assumptions, Error, and Effect Sizes
2:15 p.m. - 3:45 p.m.	Room 405-406	CS	M2	Advances in the Application of Optimization Methods To the Design of Computer-Based Assessments
2:15 p.m. - 3:45 p.m.	Room 401-402	PS	M3	Multidimensionality in Vertical Scaling
2:15 p.m. - 3:45 p.m.	Room 403-404	PS	M4	Evaluating the Psychometric Characteristics of Testlets
2:15 p.m. - 3:45 p.m.	Rooms 501-502	PS	M5	Large-Scale Assessment and Educational Policy
4:05 p.m. - 6:05 p.m.	Times Square Ballroom C	PS	N1	The Meaning and Use of Subscores
4:05 p.m. - 6:05 p.m.	Room 405-406	CS	N2	Human Grading of Constructed-Response Items
4:05 p.m. - 6:05 p.m.	Room 401-402	PS	N3	Issues in IRT Parameter Estimation
4:05 p.m. - 6:05 p.m.	Room 403-404	PS	N4	Issues in Equating
4:05 p.m. - 6:05 p.m.	Rooms 501-502	PS	N5	Differential Weighting of Item Scores and Subscores
4:00 p.m. - 7:00 p.m.	Room 1507			NCME Board of Directors Meeting



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National Council on Measurement in Education

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2008 Training Sessions  
March 23-24, 2008

2008 Annual Meeting  
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# NCME • 2008 Annual Meeting & Training Sessions

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Future Annual Meetings

**2009 Annual Meeting**

April 14 - 16

San Diego, California

**2010 Annual Meeting**

April 30 - May 4

Denver, Colorado

**2011 Annual Meeting**

April 8 - 12

New Orleans, Louisiana

**2012 Annual Meeting**

April 13 - 17

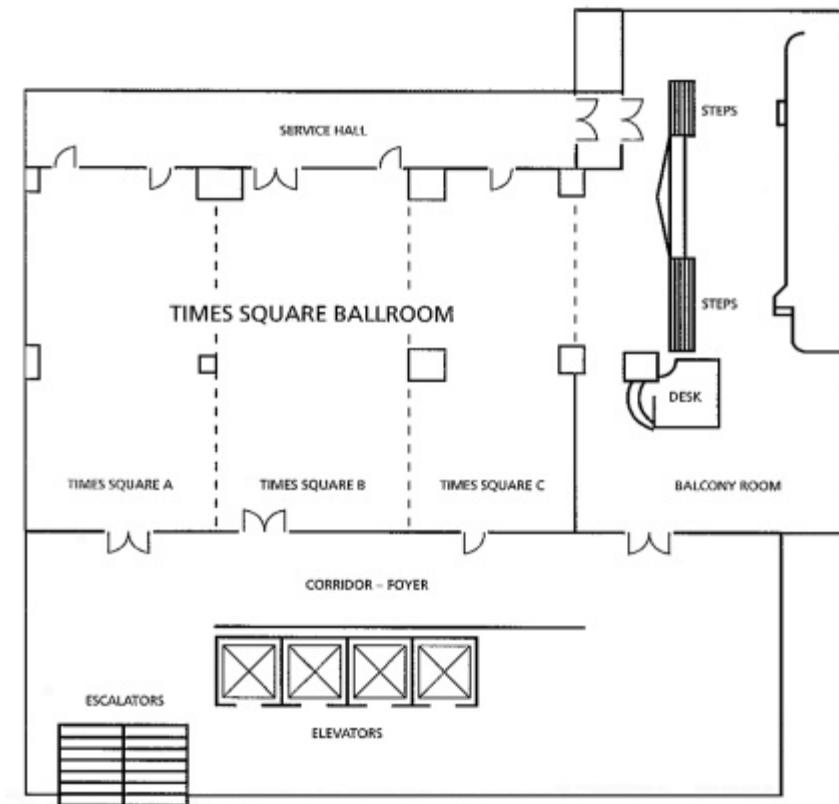
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# New York City

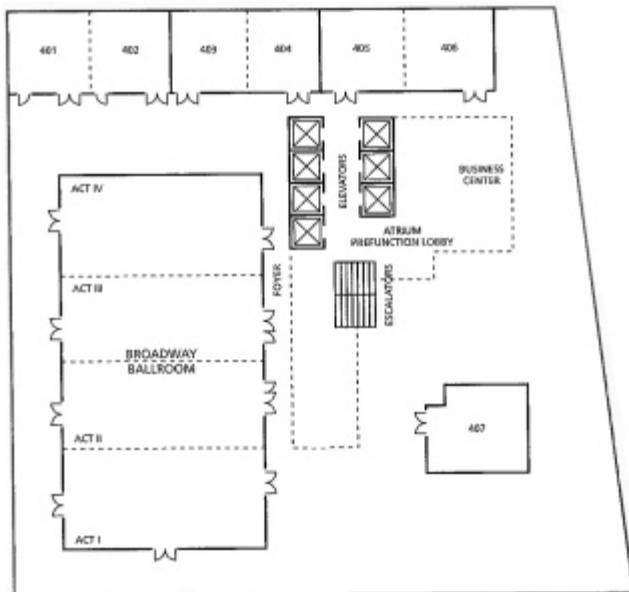
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## Crowne Plaza Times Square – Times Square Ballroom

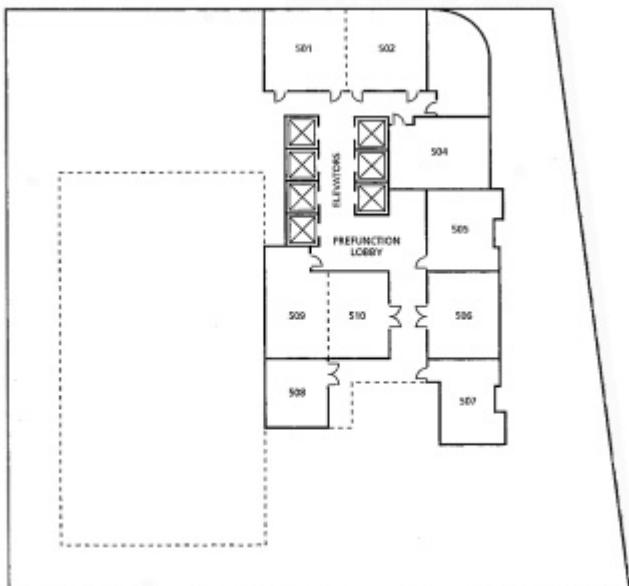
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Crowne Plaza Times Square – Fourth Floor



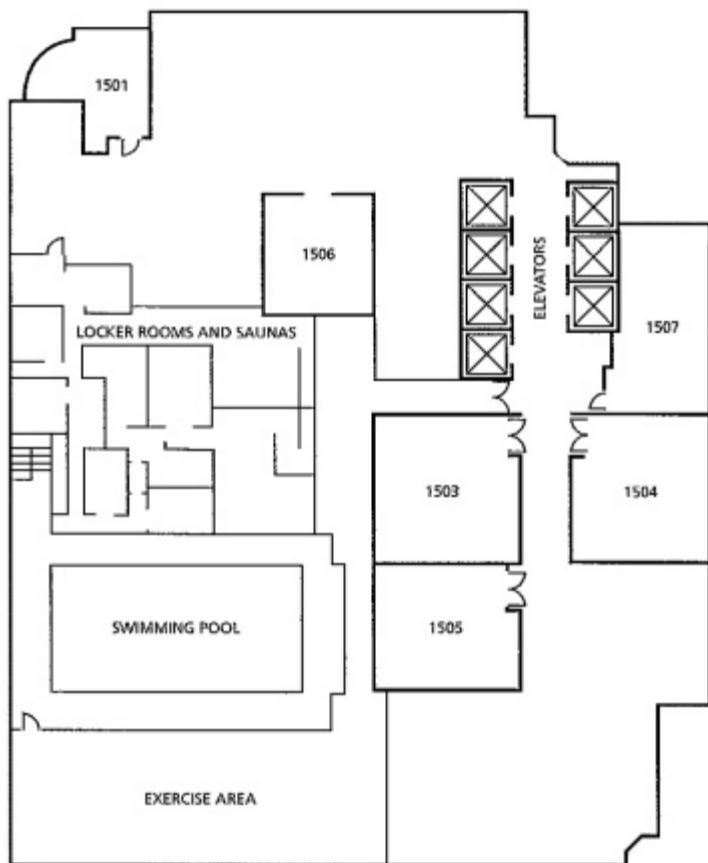
Crowne Plaza Times Square – Fifth Floor



# New York City

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## Crowne Plaza Times Square – Fifteenth Floor



## PRE-CONFERENCE TRAINING SESSIONS

The 2008 NCME pre-conference training sessions will be held at the Crowne Plaza Times Square Hotel. All full-day sessions will run from 8:00 a.m. to 5:00 p.m. All half-day morning sessions will run 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.

Please note that internet connectivity will be unavailable at the conference and that, where applicable, participants should download the software required prior to the training sessions.

### Sunday, March 23, 2008

#### **Sunday, 8:00 a.m. – 12:00 noon, Times Square Ballroom B, AA**

Linking and Aligning Scores and Scales

*Presenters: Neil Dorans, Educational Testing Service; Jinghua Liu, Educational Testing Service; Mary Pommerich, Defense Manpower Data Center; Michael Walker, Educational Testing Service*

The communication of linking issues to test score users is a critical component to ensuring the validity of a linkage. This session will seek to facilitate communication about the appropriate use and interpretation of linked scores by emphasizing the different meanings that can be attached to different linkages and the necessary requirements to achieve solid linkages. It is targeted toward testing professionals who conduct linkages and/or convey the results of linkages to nonpractitioners and test score users with a measurement background. A foundations portion of the session will present a historical perspective on score linking, provide definitions and distinctions between types of linkages, discuss relevant data collection designs, and give an overview of linking methodology and assumptions. A linking scenarios portion will make expanded distinctions between types of linkages and discuss practical issues using real world examples. Topics of discussion will be equating, tests in transition, concordance, vertical scaling, and linking group assessments to individual assessments. A tools portion will discuss indices that can be used to choose an appropriate linkage type and methods that can be used to evaluate linkage quality. A score interpretation portion will focus on the appropriate usage and interpretation of linked scores, comparing and contrasting across the different linking scenarios.

- Participants will be provided with the book “Linking and Aligning Scores and Scales” (Dorans, Pommerich, & Holland, Eds., 2007), plus a copy of the instructional slides.

#### **Sunday, 8:00 a.m. – 12:00 noon, Room 405-406, BB**

Nonlinear Mixed Models Approach to Item Response Theory

*Presenters: Paul De Boeck, K.U. Leuven; Frank Rijmen, Educational Testing Service; Francis Tuerlinckx, K.U. Leuven; Mark Wilson, University of California, Berkeley*

The central message of the session is that it is beneficial to see item response theory (IRT) models as extensions of generalized linear regression models that

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seek to model facets of the measurement situation. These facets are most typically persons and items, but the set may be extended to incorporate other facets such as raters and may also be re-labeled to suit particular applications. While the link function and the random component of the regression model remain the same, the most interesting part of the extension concerns the structural part of the model: (1) the kind of predictive function (linear or nonlinear, e.g. bilinear), and (2) the effects (weights) of the predictors (fixed effects or random effects).

Starting from some well-known IRT models, other less well-known models will be framed in this approach, based on a volume published by Springer: *Explanatory Item Response Models: A Generalized Linear and Nonlinear Approach* (De Boeck & Wilson, Eds., 2004). This session will illustrate how the models can be estimated with the SAS procedure NLMIXED. This session will also discuss and illustrate how multilevel modeling and structural equation modeling (SEM) for categorical data can be expressed from the perspective of nonlinear mixed modeling and vice versa. This will be illustrated with various software related approaches for multilevel analysis and SEM.

- Participants are recommended to buy the book, “*Explanatory Item Response Models: A Generalized Linear and Nonlinear Approach*” (De Boeck & Wilson, Eds., 2004). There will be a discount available for those who buy the book at the Springer Booth at the AERA Conference after the training session.

### **Sunday, 8:00 a.m. – 5:00 p.m., Room 401-402, CC**

#### Developing Noncognitive Assessments

*Presenters: Patrick Kyllonen, Educational Testing Service; Richard Roberts, Educational Testing Service*

Noncognitive qualities are increasingly recognized as important determinants and reflections of success in education from K-12 through graduate and professional school. This session will review the process of developing and evaluating noncognitive assessments. The following topics will be covered:

- noncognitive construct frameworks, models, and theories (personality, attitudes, values, beliefs, and other constructs)
- developing assessments from construct definitions and item pools, including the international personality item pool (IPIP)
- various methods for assessing non-cognitive qualities (self-assessments, others' ratings, situational judgment tests, conditional reasoning, implicit association tests)
- item writing dos and don'ts
- the problem of faking on self-assessments (preventing, detecting and correcting for it)
- delivery platforms (web and paper-and-pencil)
- exploratory factor analysis and other data-structure exploration methods
- confirmatory factor analysis
- advanced methods (IRT, latent class models, unfolding models)
- special topics (rating-scale issues (optimal number of points, presence of neutral point, “do not know”) and reverse-key items)
- indirect measures (e.g., from school records)

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- example noncognitive assessments (self-help for community college, institutional reporting for K-12, high stakes for graduate school)

Each of these topics will be organized as a 30-minute (approximately) session with empirical examples provided, Q&A, and some hands-on exercises where appropriate.

### **Sunday, 8:00 a.m. – 5:00 p.m., Times Square Ballroom A, DD**

Student Involvement and Formative Feedback in Classroom Assessment: Measurement Concepts and Issues

*Presenters: Jeffrey Beaudry, University of Southern Maine; Leslie Lukin, Lincoln Public Schools; Lori Nebelsick-Gullet, Lincoln Public Schools*

The purpose of this session is to examine current theory and best practice regarding classroom assessment and grading, how to use this knowledge to promote student learning, and understanding how students benefit from direct involvement in assessment and grading. A key element of this discussion will focus on the development and use of formative assessment and feedback as an important part of the learning process. Learning activities will center on issues of assessment quality and utility. Through the discussion of in-depth case studies of practitioners, participants will explore the following topics:

- development of a shared language for classroom assessment literacy
- development of an understanding of the similarities and differences between assessments that are used for system accountability versus assessments used in classrooms to support the learning process
- development and implementation of interpretable and useable formative feedback
- development of a fair and equitable learning environment
- how to create an environment at the systems level that supports the implementation of best practice in the areas of assessment and grading in classrooms
- use of data for student learning, teacher planning, and system improvement

### **Sunday, 8:00 a.m. – 5:00 p.m., Room 403-404, EE**

Item Response Theory: Parameter Estimation Techniques

*Presenter: Seock-Ho Kim, University of Georgia*

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

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Applications of these models to practical measurement situations will be studied using item response theory computer programs. Topics of the course will consist of item calibration, scoring, information, and some applications to instrument construction (e.g., equating, differential item functioning, test construction). Models for polytomously scored items will be briefly discussed.

- Prerequisites include knowledge equivalent to one graduate course in theoretical educational measurement and familiarity with differential and integral calculus treated in undergraduate mathematics courses.
- Participants are encouraged to bring their own laptop computers.
- Participants will be provided with the book “Item Response Theory: Parameter Estimation Techniques” (Baker & Kim, Eds., 2004), which will be used as a principle reference in the training session.

### **Sunday, 1:00 p.m. – 5:00 p.m., Times Square Ballroom B, FF**

Test Security: Practices, Policies, and Punishment

*Presenters: James Impara, Caveon Test Security; Ardeshir Geranpayeh, University of Cambridge ESOL Examinations; Jamie Mulkey, Caveon Test Security*

Test security is a growing concern for learning institutions, credentialing organizations, and businesses. Each week, news stories with incidents of cheating, student coaching, teacher intervention, and even outright test theft are exposed. While there is an increase in these activities, new tools and methods are being developed to detect testing irregularities that are most likely caused by test fraud and theft.

This session will take a case study approach to solving test security issues. Participants will first gain an understanding of the impact of test theft on test takers and constituents. They will then be given a primer on statistical analysis techniques used to detect testing irregularities, including a review of current statistical tools that detect answer copying and test administration irregularities. Using the results of statistical analysis techniques, participants will then use a case study to make decisions about applied policies and sanctions.

### **Sunday, 1:00 p.m. – 5:00 p.m., Room 405-406, GG**

An Introduction to the Application of BMIRT: Bayesian Multivariate Item Response Theory Software

*Presenters: Lihua Yao, CTB/McGraw-Hill; Daniel Lewis, CTB/McGraw-Hill*

This session is intended to support new users of BMIRT (Yao, 2003, Yao, 2004; Yao, & Boughton, 2005; Yao, & Schwarz, 2005), a computer program that uses the Markov Chain Monte Carlo (MCMC) method to estimate item and ability parameters in the multidimensional IRT framework; exploratory and confirmatory approaches are supported.

BMIRT has been licensed for research purposes since 2006 and has a growing audience of users. This session is intended for researchers interested in working

with dichotomous or polytomous data that is multidimensional in nature and that may be generated from single or multiple groups. BMIRT supports the 3PL, 2PPC, Graded-response, and Testlet models.

- Participants should bring laptop computers and any data they would like to use.
- Data requirements and formats, sample data, and input files will be provided to participants prior to the session. Participants will be required to complete licensing agreements prior to the session. One day licenses will be available for those who have not completed the full license agreement prior to the session.

## Monday, March 24, 2008

### Monday, 8:00 a.m. – 12:00 noon, Room 406, HH

Writing Diagnostic Items

*Presenters: Dylan Wiliam, Institute of Education, University of London;  
Caroline Wylie, Educational Testing Service*

Increasingly, test developers are being asked to generate items and tests that not only identify what a student can and can't do, but why and what to do about it. A number of approaches to this challenge have been explored, including the use of sub-scales and standard-by-standard reporting. At the Educational Testing Service, a team has been investigating the construction of diagnostic items which can either be used singly by the teachers as part of normal classroom practice or assembled into testlets to support summative inferences. The crucial characteristic of such items (Wylie & Wiliam, NCME 2007) is that they enable teachers to distinguish between students who are operating with a correct or an incorrect cognitive rule (Bart et al., 1994). Specifically, by using the items, teachers are able to identify students who can get the correct answer using incorrect reasoning. This session will present the item-writing process, illustrate the steps with a series of examples, and show the iterative approach to refining items. Participants will have an opportunity to write, critique, and review items.

### Monday, 8:00 a.m. – 12:00 noon, Room 501, II

Skills Diagnosis with Latent Variable Models

*Presenters: Jeffrey Douglas, University of Illinois, Urbana-Champaign;  
Hua-Hua Chang, University of Illinois, Urbana-Champaign; Jimmy de la  
Torre, Rutgers University; Robert Henson, University of North Carolina,  
Greensboro; Jonathan Templin, University of Georgia*

The primary aim of skills diagnosis is to develop and analyze tests in ways that reveal information with more diagnostic value when compared with traditional approaches. In the methods for skills diagnosis, mastery of particular skills or states of knowledge can be represented by a list of binary latent variables indicating mastery of each of a finite set of skills under diagnosis. The main objective of skills diagnosis is to classify examinees according to this list of skills. In this training session, several popular modeling and classification approaches will be discussed. Three conjunctive latent class models known as the DINA, NIDA, and Fusion models will be introduced, and software for fitting these models with Mplus will be

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demonstrated. Because of the multidimensional nature of these models, estimation benefits greatly if it can adapt to previous responses. To address this, computerized adaptive testing (CAT) is considered. Because Fisher information does not apply to discrete latent variables, alternative and computationally simple item selection rules are introduced. For CAT settings in which both traditional and diagnostic models are being used, CAT algorithms are introduced for ensuring reliable information for these dual objectives. In addition to sequential methods of test construction, indices for use in fixed-length test construction are also given. The training session is meant to provide practical guidelines for implementing skills diagnosis and considers the essential topics of identifying the attributes measured by items as well as test equating.

- Participants will be given access to a website where they can download software that can be used with Mplus for fitting latent variable models for skills diagnosis.
- It is recommended that participants bring a laptop computer with Mplus installed.

### **Monday, 8:00 a.m. – 12:00 noon, Room 403-404, JJ**

Exploring the Validity of State Accountability Systems

*Presenters: Brian Gong, Center for Assessment; Marianne Perie, Center for Assessment*

School accountability systems have been instituted as policy mechanisms for improving student achievement since the 1990's. Since the passage of the No Child Left Behind Act of 2001, we as a field have learned many lessons on developing strong accountability systems. However, although standards for educational testing and program and student evaluation have been developed, there are no universally adopted standards for accountability systems. This session will use a validity framework to explore the elements required of a quality accountability system, providing guidance for both developing new systems and evaluating existing systems.

In one part of the session, the focus will be on conceptualizing the validity of accountability systems as contrasted with validity of assessments, drawing on the work of Messick and Kane. This approach provides two lenses for exploring the validity of accountability. Another part of the session will present a framework of guiding questions and key elements that should be addressed in any accountability system. Examples of actual systems and lessons learned will be shared. The challenges inherent in combining the values and goals of state and federal accountability systems will also be discussed.

### **Monday, 8:00 a.m. – 5:00 p.m., Times Square Ballroom C, KK**

Test Equating Methods and Practices

*Presenters: Michael Kolen, University of Iowa; Robert 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.

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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 session is designed for upper level graduate students, new PhD's, testing professionals with operational or oversight responsibility for equating, and others with interest in learning about equating methods and practices.

- Participants should have at least one graduate course in measurement and two graduate courses in statistics.
- Participants will be provided with the second edition of "Test Equating, Scaling, and Linking: Methods and Practices" (Kolen & Brennan, 2004).

### **Monday, 8:00 a.m. – 5:00 p.m., Room 502, LL**

Applying Hierarchical Models to Causal Inference

*Presenters: Guanglei Hong, OISE/University of Toronto; Stephen Raudenbush, University of Chicago*

The purpose of this session is to introduce recent developments of causal inference concepts and methods for evaluating educational policy and program effects in multi-level settings when randomized experiments are infeasible. Hierarchical linear and nonlinear models in combination with propensity score-based methods for causal effect estimation will be presented. Education examples will be used throughout lecture, discussion and hands-on practice. The session is intended for researchers interested in investigating the effectiveness of educational policies, intervention programs, and various educational practices.

- Participants are expected to bring a laptop computer with SPSS installed. Participants should also download and install the free 15-day trial edition of the HLM 6 software available at <http://www.ssicentral.com/hlm/downloads.html> prior to attending the session.

### **Monday, 8:00 a.m. – 5:00 p.m., Room 401-402, MM**

Considerations in Setting Performance Standards

*Presenters: Mary Pitoniak, Educational Testing Service; Michael Zieky, Educational Testing Service*

This session intends to answer questions regarding how to choose a standard setting method, which methods are currently being used, and how to know if the cut scores set for an assessment yield valid interpretations within the context of a particular testing program. The fundamentals of standard setting will be presented, including required steps for all methods. Information on vertically moderated standards and adjusting committee-recommended cut scores will also be discussed. Methodologies currently being used by the states in setting performance standards will be reviewed.

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Hands-on practice time will be given to allow participants to thoroughly understand the cognitive tasks involved in making the judgments for two of the most commonly used methods, Bookmark (Lewis, Mitzel, & Green, 1996) and modified Angoff (Angoff, 1971). This exercise will also prepare participants to plan and run Bookmark and modified Angoff standard setting workshops.

Finally, significant time will be devoted to studying the validity of standard setting procedures and the resulting cut scores. Using Kane's (1994, 2001) framework, the session will explore three sources of evidence: procedural, internal, and external. This session is intended for anyone who needs to understand how to run a standard setting session and the complexities involved.

- Participants will be provided with a booklet containing a series of articles relevant to the field, as well as some sample standard setting materials.

### **Monday, 8:00 a.m. – 5:00 p.m., Room 405, NN**

Bayesian Networks in Educational Assessment

*Presenters: Russell Almond, Educational Testing Service; Robert Mislevy, University of Maryland; David 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 that has fidelity to cognitive theories about the domain and yet is mathematically tractable and can be refined with observational data. Topics covered in this session will include 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/>).

### **Monday, 1:00 p.m. – 5:00 p.m., Room 406, OO**

ICL and ETIRM: Open Source IRT Estimation Software for Researchers

*Presenters: Alan D. Mead, Illinois Institute of Technology; Werner Wothke, American Institutes for Research; Yanwei Zhang, American Institute of Certified Public Accountants*

This session will focus on Hanson's (2002) IRT Command Language (ICL) and the Estimation Toolkit for Item Response Models (ETIRM) used by researchers. Participants will learn: (1) how to use ICL to fit dichotomous and polytomous IRT models, as well as advanced ICL features; (2) ICL features for simulation research; and (3) how ETIRM is used. The session will begin with a short "IRT refresher," but the course is designed for participants who already have at least a basic understanding of item response theory.

ICL is a stand-alone computer program for estimating parameters of dichotomous and polytomous IRT models. ICL computes maximum likelihood or Bayes modal

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estimates of item parameters using the EM algorithm and handles both single and multiple group estimation. The estimation routines are available separately as the ETIRM. Both ICL and ETIRM were released as open source by their author, Bradley Hanson, and may be copied and modified; ETIRM may be incorporated into other software.

- Participants should bring a Windows or Linux laptop (ICL is also available for Apple computers).

### **Monday, 1:00 p.m. – 5:00 p.m., Room 501, PP**

Building and Documenting a Valid Assessment System for Students with Disabilities: Psychometric and Practical Considerations for Alternate and Modified Assessments

*Presenters: Karen Barton, CTB/McGraw-Hill; Lara Osleson, CTB/McGraw-Hill; Dianne Lefly, Colorado Department of Education*

This session is intended for psychometricians, researchers, state Departments of Education personnel, and test development experts who wish to design, build, and document in technical format, reliable, valid, defensible assessments, particularly alternate and modified assessments for students with disabilities. Topics range from assessment policy, design, and development to appropriate statistical design and analysis, special studies, and technical documentation. The session will provide the audience with sound psychometric tools and practices to assure alternate (as well as modified and general) assessments can meet high standards of technical adequacy with practical tips and solutions for documenting evidence in a legally defensible manner.

Participants will be guided through each step in designing and building a valid and defensible alternate assessment, with approaches to collecting appropriate validity evidence linked to the Standards (AERA, NCME, APA) and Critical Elements. Parallels and distinctions will be made between alternate assessments and both modified and general assessments.

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**Monday, 1:00 p.m. – 5:00 p.m., Room 403-404, QQ**

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

*Presenters: Deborah Harris, ACT; Julio Sanclemente, CTB/McGraw-Hill;  
Andrew Ho, University of Iowa*

The training session will have three main components of discussion to include finishing up the PhD, obtaining a job, and beginning a career. Specifics that will be discussed include:

- finding a dissertation topic and how to maximize experiences while still a student (classes, internships, work experiences, networking, professional associations)
- locating where jobs are available (universities, testing companies, school districts, state departments, professional/licensing organizations, etc.), how to apply for jobs (including targeting cover letters, references, and resumes) and the interview process
- understanding job politics, adjusting to the environment, career path, publishing, professional service, being a mentor/finding a mentor, balancing work and life, and what to do if you hate your job

## NCME • 2008 Annual Meeting & Training Sessions

Monday, 4:00 p.m. – 7:00 p.m. Room 1507

### **NCME Board of Directors Meeting**

Members of NCME are invited to attend as observers.

# New York City

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Tuesday, 8:15 a.m. – 10:15 a.m., Broadway Ballroom – Act II, A1

## **Open Hearing on Revising the 1999 Standards for Educational and Psychological Testing – Invited Symposium**

*(Co-sponsored by NCME and AERA Division D)*

### **Moderators**

*Wayne Camara, College Board*

*David Frisbie, University of Iowa*

### **Presenters**

Bob Brennan, University of Pittsburgh

*Overview of the Standards Revision and Management*

Bob Brennan, University of Iowa

*Purpose and Use of the Standards in Educational Testing Today*

Eva Baker, CRESST, University of California, Los Angeles

*Educational Policy Implications of the Standards*

Michael Kane, National Board of Medical Examiners

*Validity*

Michael Kolen, University of Iowa

*Linking, Scaling and Equating*

Robert Linn, University of Colorado, CRESST

*Large Scale Assessment*

Randy Bennett, Educational Testing Service

*Relevance of the Standards to Current and Future Technology*

Martha Thurlow, NCEO, University of Minnesota

*Special Populations*

Joan Herman, CRESST, University of California, Los Angeles

*Assessments and Learning*

Dan Eignor, Educational Testing Service

*General Reflections and Advice*

# NCME • 2008 Annual Meeting & Training Sessions

Tuesday, 8:15 a.m. – 10:15 a.m., Room 501 – 502, A2

## **Profile Analysis via Multidimensional Scaling (PAMS): Introduction, Applications, and Implications for Future Research – Coordinated Session**

### **Organizer/Moderator**

*Se-Kang Kim, Fordham University*

### **Presenters**

Mark Davison, University of Minnesota

*Overview of Profile Analysis via Multidimensional Scaling (PAMS) and Related Methods*

Jodi Casabianca, Fordham University, Se-Kang Kim, Fordham University

*PAMS As an Exploratory Tool in Analysis of Cross-Sectional Data: A Comparison of PAMS to Cluster Analysis in Identification of Within-Person Profile Patterns*

Tammy Trierweiler, Fordham University, Se-Kang Kim, Fordham University,  
Howard Everson, Fordham University

*PAMS As a Confirmatory Tool in Analysis of Cross-Sectional Data: A Structural Equations Modeling Approach*

Cody Ding, University of Missouri

*MDS Modeling As a Method for Classification in Longitudinal Studies*

Se-Kang Kim, Fordham University

*Past, Present, and Future of PAMS*

### **Discussant**

*Charles Lewis, Fordham University*

# New York City

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Tuesday, 8:15 a.m. – 10:15 a.m., Room 405 – 406, A3

## Topics in Test Alignment – Paper Session

### Moderator

*Richard Sudweeks, Brigham Young University*

### Presenters

Barbara Badgett, University of Nevada, Las Vegas, Susan Davis, Alpine Testing Solutions, Chad Buckendahl, Alpine Testing Solutions

*Alignment in Higher Education: Matching Assessments to Program Goals of an Online University*

Laurie-Ann Hellsten, University of Saskatchewan

*Accumulating Content Validity Evidence: Assessing Expert Panel Ratings of Item Relevance and Representativeness*

Tzu-Yun Chin, University of Nebraska, Lincoln, Elaine Rodeck, University of Nebraska, Lincoln, Chad Buckendahl, Buros Center for Testing, University of Nebraska, Lincoln, Brett Foley, Buros Center for Testing, University of Nebraska, Lincoln

*The Impact of Consensus on Alignment Judgments*

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

*A Proposed Framework for Evaluating Alignment Studies*

### Discussant

*Liz Hollingworth, University of Iowa*

# NCME • 2008 Annual Meeting & Training Sessions

Tuesday, 8:15 a.m. – 10:15 a.m., Room 401– 402, A4

## Assessing Differential Item Functioning Using Complex Models – Paper Session

### Moderator

*Bo Zhang, University of Wisconsin, Milwaukee*

### Presenters

Feiming Li, University of Georgia, Jonathan Templin, University of Georgia, Allan Cohen, University of Georgia

*A Relaxed Higher-Order Dina Model for Attribute-Level DIF*

Qiong Wu, Penn State University, Pui-Wa Lei, Penn State University

*An Investigation of the Application of Multi-Group Mean and Covariance Structure Analysis to DIF with Dichotomous Items*

Brandon Vaughn, University of Texas, Austin, Yuk Fai Cheong, Emory University, Akihito Kamata, Florida State University

*An Investigation on the Utility of the 3-Level Hierarchical Generalized Linear Model for DIF Detection*

Holmes Finch, Ball State University, Brian French, Purdue University

*Using a Hierarchical Mimic Model for Uniform DIF Assessment in the Presence of Nested Data*

Daniel Van Nijlen, Catholic University Leuven, Rianne Janssen, Catholic University Leuven

*Mixture IRT-Models As a Means of DIF-Detection: Modeling Spelling in Different Grades of Primary School*

### Discussant

*Andreas Oranje, Educational Testing Service*

# New York City

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Tuesday, 8:15 a.m. – 10:15 a.m., Room 403 – 404, A5

## Topics in Standard-Setting – Paper Session

### Moderator

*Anne Murphy, CTB/McGraw-Hill*

### Presenters

Louis Roussos, Measured Progress, Abdullah Ferdous, International Development Program, American Institutes for Research

*Skills Diagnosis Validity: Comparing Performance Level Judgments from Standard Setting Results with Skill Mastery Estimation from Skills Diagnosis Statistical Analyses*

Jonathan Templin, University of Georgia, Allan Cohen, University of Georgia, Robert Henson, University of North Carolina, Greensboro

*Constructing Tests for Optimal Classification in Standard Setting*

Serge Hein, Virginia Polytechnic Institute and State University, Gary Skaggs, Virginia Polytechnic Institute and State University

*A Qualitative Investigation of Panelists' Experiences of Standard Setting Using the Single-Passage Bookmark and Yes/No Methods*

Janet Mee, National Board of Medical Examiners, Su Baldwin, National Board of Medical Examiners, Melissa Margolis, National Board of Medical Examiners, Brian Clauser, National Board of Medical Examiners

*An Experimental Analysis of the Use of Examinee Performance Data in an Angoff Standard-Setting Exercise*

### Discussant

*Chad Buckendahl, Alpine Testing Solutions*

# NCME • 2008 Annual Meeting & Training Sessions

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Tuesday, 10:35 a.m. – 12:05 p.m., Broadway Ballroom Act II, B1

## **Professional Development Programs in Formative Classroom Assessment: Do Changes in Teacher Practice Improve Student Achievement? – Invited Symposium**

### **Organizer**

*Christina Schneider, CTB/McGraw-Hill*

### **Moderator**

*Teri Siskind, South Carolina Department of Education*

### **Presenters**

Charles Webber, University of Calgary, Nola Aitken, University of Lethbridge,  
Judy Lupart, University of Alberta, Robert Runté, University of Lethbridge  
*The Alberta Student Assessment Study: Stage One Findings*

Caroline Wylie, Educational Testing Service, Courtney Bell, Educational Testing Service,  
Dylan Wiliam, Institute of Education, University of London  
*Formative Assessment and Student Achievement: Two Years of Implementation  
of the Keeping Learning on Track™ Program*

Shelley Ragland, James Madison University, Christina Schneider, CTB/McGraw-Hill,  
Ching Ching Yap, University of South Carolina, Pamela Kaliski, James Madison University  
*The Effect of Classroom Assessment Professional Development on English Language Arts and Mathematics Student Achievement: Year 2 Results*

Susan Brookhart, Duquesne University, Connie Moss, Duquesne University,  
Beverly Long, Armstrong School District  
*Professional Development in Formative Assessment: Effects on Teacher and Student Learning*

### **Discussant**

*Bruce Randel, Mid-continent Research for Education and Learning (McREL)*

# New York City

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Tuesday, 10:35 a.m. – 12:05 p.m., Room 501 – 502, B2

## **Examining Validity Evidence in the Academic Assessment and Accommodations for English Language Learners – Coordinated Session**

### **Organizer/Moderator**

*Maria Martiniello, Educational Testing Service*

### **Presenters**

Yoonsun Lee, Washington State Department of Education, Richard Duran, University of California, Santa Barbara

*Washington Language Proficiency Test Construct Validity*

Maria Martiniello, Educational Testing Service

*Item Characteristics Predicting DIF for ELLs in Math Assessments*

Jamal Abedi, University of California, Davis

*Consistencies between Results of DIF Analyses by Different Approaches for ELLs in Math and Reading Tests*

Rebecca Kopriva, University of Wisconsin, Madison, Catherine Cameron, Center for Applied Linguistics

*The Limits of DIF: Why This Item Evaluation Tool is Flawed for Learning Disabled Students, Hearing Impaired, and English Language Learners*

Stephen Sireci, University of Massachusetts, Amherst, Craig Wells, University of Massachusetts, Amherst, Jennifer Dunn, National Center for the Improvement of Educational Assessment

*A Psychometric Analysis of a Spanish Read-Aloud Accommodation*

### **Discussants**

*John Young, Educational Testing Service*

*Richard Duran, University of California, Santa Barbara*

# NCME • 2008 Annual Meeting & Training Sessions

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Tuesday, 10:35 a.m. – 12:05 p.m., Room 405 – 406, B3

## **Investigations and Extensions of Differential Item Functioning Models – Paper Session**

### **Moderator**

*Deborah Bandalos, University of Georgia*

### **Presenters**

Tim Moses, Educational Testing Service, Jing Miao, Educational Testing Service, Neil Dorans, Educational Testing Service

*A Comparison of Methods for Estimating Conditional Item Score Differences in DIF Assessments*

Sun-Joo Cho, University of California, Berkeley, Allan Cohen, University of Georgia, Jonathan Templin, University of Georgia

*Multidimensional Mixture IRT Model for DIF Analysis*

Tianshu Pan, Michigan State University

*Using the Multivariate Multilevel Logistic Regression Model to Detect Differential Item Functioning: A Comparison with the Hierarchical Generalized Linear Model DIF Detection Procedure*

Han Bao, University of Maryland, Mitchell Dayton, University of Maryland, Amy Hendrickson, College Board

*Investigating Differential Item Functioning Amplification and Cancellation in Application of Item Response Testlet Models*

### **Discussant**

*Bruno Zumbo, University of British Columbia*

# New York City

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Tuesday, 10:35 a.m. – 12:05 p.m., Room 401 – 402, B4

## Effects of Confounding Variables – Paper Session

### Moderator

*Lei Wan, Pearson*

### Presenters

Christopher Weiss, Columbia University, Christine Baker-Smith, Columbia University

*Examining the Effect of Eighth Grade School Type on High School Trajectories*

Claude Messan Setodji, RAND Corporation, Vi-Nhuan Le, RAND Corporation  
*Accounting for Movement between Childcare Classrooms: Does It Change Interpretations of Teacher Effects?*

Cindy Walker, University of Wisconsin, Milwaukee

*An Analytic DIF Framework Based on Differences in Cultural Capital Designed to Help Illuminate Why the Achievement Gap Persists*

Andreas Oranje, Educational Testing Service, Deping Li, Educational Testing Service

*On the Role of Background Variables in Large-Scale Survey Assessment Analysis*

Xin Wei, Stanford University, Edward Haertel, Stanford University

*The Effect of Ignoring Classroom-Level Variance in Estimating the Generalizability of School Mean Scores*

### Discussant

*Neal Kingston, University of Kansas*

# NCME • 2008 Annual Meeting & Training Sessions

Tuesday, 10:35 a.m. – 12:05 p.m., Room 403 – 404, B5

## Approaches to Establishing Comparability – Paper Session

### Moderator

*Bethany Brunsman, Lincoln Public Schools*

### Presenters

Bryce Pride, University of South Florida, Teresa Chavez, University of South Florida, Yi-Hsin Chen, University of South Florida, Yuh-Chyn Leu, National Taipei University of Education

*Distinguishing Latent Classes Behind Item Responses to the Fraction Concept Test among Taiwanese Elementary Students*

Carol Parke, Duquesne University, Gibbs Kanyongo, Duquesne University, Steven Kachmar, Duquesne University

*Examining Relationships among Large-Scale Mathematics Assessment Performance, Grade Point Average, and Coursework in Urban High Schools*

Rebecca Zwick, University of California, Santa Barbara, Jennifer Greif Green, Harvard University

*Using a Hierarchical Model to Understand the Correlation of SAT Scores, High School Grades, and Socioeconomic Factors*

Scott Wood, University of Iowa, Timothy Ansley, University of Iowa

*An Investigation of the Validity of Standardized Achievement Tests for Predicting High School and First-Year College GPA and College Entrance Examination Scores*

Joseph Betts, Renaissance Learning

*Evaluating the Claims of Form Comparability in Curriculum-Based Measurement of Reading (CBM-R)*

### Discussant

*Feifei Ye, University of Pittsburgh*

# New York City

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Tuesday, 12:25 p.m. – 1:55 p.m., Broadway Ballroom Act II, C1

## **Dualities of Validity in an International Context – Invited Symposium**

### **Organizer/Moderator**

*William Lorié, CTB/McGraw-Hill*

### **Presenters**

Eugenio Gonzalez, IEA-ETS Research Institute

*Interpreting DIF in the Context of IEA's International Assessments*

Michelle Boyer, CTB/McGraw-Hill, Enrique Froemel, Office of Student Assessment, Evaluation Institute, Supreme Education Council, State of Qatar, Richard Schwarz, CTB/McGraw-Hill

*Obtaining Comparable Scores for Arabic and English Tests of Mathematics and Science Administered under the Qatar Comprehensive Educational Assessment Program*

Liu Hongyun, Beijing Normal University, Changhua Rich, CTB/McGraw-Hill, Jian Liu, Ministry of Education, People's Republic of China

*Large Scale Assessment of Chinese Students' Academic Achievement: Validity Aspects of Innovative Tests for Improving Students' Learning and Performance*

Sridhar Rajagopalan, Education Initiatives, India, Vyjayanthi Sankar, Education Initiatives, India

*Assessment of Student Learning Across the Metro Cities of India: Implications of Validity for Different School Boards*

### **Discussant**

*Patricia Baron, Educational Testing Service*

# NCME • 2008 Annual Meeting & Training Sessions

Tuesday, 12:25 p.m. – 1:55 p.m., Room 501 – 502, C2

## Off-the-Shelf Tests and NCLB – Coordinated Session

### Organizers

*Deborah Harris, ACT, Inc.*

*Catherine Welch, University of Iowa*

### Moderator

*Tianli Li, ACT, Inc.*

### Presenters

Catherine Welch, University of Iowa

*Alignment and Augmentation Issues*

Deborah Harris, ACT, Inc.

*Scaling and Linking Issues*

Gregory Cizek, University of North Carolina, Chapel Hill

*Standard Setting Issues*

Jon Twing, Pearson

*Score Reporting Issues*

Edward Roeber, Michigan Department of Education

*Peer Review Issues*

### Discussant

*Mark Reckase, Michigan State University*

# New York City

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Tuesday, 12:25 p.m. – 1:55 p.m., Room 405 – 406, C3

## **Analyses of Differential Item Functioning – Paper Session**

### **Moderator**

*Gene Hoffman, HumRRO*

### **Presenters**

Tania Moreira, University of Costa Rica, Eiliana Montero, University of Costa Rica

*Differential Item Functioning in Spanish and Math Exams from Costa Rica's National Exit Tests, Comparing Students with No Accommodations and Students with Accommodations for Attention Deficit Hyperactivity Disorder in 2004: A Theoretical and Methodological Contribution*

Catherine Taylor, University of Washington, Yoonsun Lee, Washington State Department of Education

*Analyses of Gender DIF in Reading and Mathematics Items from Tests with Mixed Item Formats*

Kyndra Middleton, Educational Testing Service

*An Examination of Differential Item and Bundle Functioning on a Reading Comprehension Test Administered to Students with Reading-Based Learning Disabilities*

Saba Rizavi, Educational Testing Service, Wendy Yen, Educational Testing Service, Ying Feng, CTB/McGraw-Hill

*Investigation of the Effect of Calculator Use As a Modification on the California Standardized Tests Using IRT and DIF*

### **Discussant**

*Holmes Finch, Ball State University*

# NCME • 2008 Annual Meeting & Training Sessions

Tuesday, 12:25 p.m. – 1:55 p.m., Room 401– 402, C4

## Advances in Cognitive Diagnostic Modeling – Paper Session

### Moderator

*Jonathan Templin, University of Georgia*

### Presenters

Jimmy de la Torre, Rutgers University, Ying Liu, University of Illinois, Urbana-Champaign

*A Cognitive Diagnosis Model for Continuous Response*

YuFang Zhu, Jiangxi Normal University, ShuLiang Ding, Jiangxi Normal University, TongLu Zhao, Tianjin Municipal Educational Admission and Examinations Authority, ZhiYong Xu, Tianjin Municipal Educational Admission and Examinations Authority

*A Polytomous Extension of AHM and a New Classification Method*

Ying Cui, University of Alberta, Jacqueline Leighton, University of Alberta

*The Hierarchy Consistency Index: Evaluating Person Fit for Cognitive Diagnostic Assessment*

Jianbin Fu, Educational Testing Service

*A Comparison Study of the Dichotomous Fusion Family of Models*

### Discussant

*John Poggio, University of Kansas*

# New York City

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Tuesday, 12:25 p.m. – 1:55 p.m., Room 403 – 404, C5

## Issues in Testing English Language Learners – Paper Session

### Moderator

*Diana Steele, University of Illinois, Urbana-Champaign*

### Presenters

Christine Doe, Queen's University, Janna Fox, Carleton University  
*Tracking L2 Test Takers' Strategy Use Through the Testing Process*

Liying Cheng, Queen's University, Don Klinger, Queen's University, Ying Zheng, Queen's University

*Success or Failure: Students' After-School Literacy Activities and Their Literacy Performance on the Ontario Secondary School Literacy Test*

Alvaro Arce-Ferrer, Harcourt Assessment, Ileana Diaz, College of Medicine, University of Yucatan

*An Experimental Investigation of Rating Scale Construction Guidelines: Do They Work with Spanish-Speaking Populations?*

Saw Lan Ong, Universiti Sains Malaysia

*Effects of Test Language on Students' Mathematics Performance*

Jinyan Huang, Niagara University

*Examining the Fairness of Rating ESL Students' Writing on Large-Scale Assessments*

### Discussant

*Ida Lawrence, Educational Testing Service*

# NCME • 2008 Annual Meeting & Training Sessions

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Tuesday, 2:15 p.m. – 3:45 p.m., Broadway Ballroom – Act II, D1

## **The Intersection of Accountability and Measurement: Policy and Psychometrics – Invited Symposium – Panel Discussion**

### **Organizer/Moderator**

*Phoebe Winter, Consultant*

### **Presenters**

Kerri Briggs, United States Department of Education

David Abrams, New York State Education Department

Joseph Martineau, Michigan State Department of Education

Rebecca Kopriva, University of Wisconsin, Madison

Karen Barton, CTB/McGraw-Hill

### **Discussant**

*Robert Linn, University of Colorado, CRESST*

# New York City

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Tuesday, 2:15 p.m. – 3:45 p.m., Room 501 – 502, D2

## **Kernel Equating: Methodological Extensions and Competitors – Coordinated Session**

### **Organizer/Moderator**

*Frank Rijmen, Educational Testing Service*

### **Presenters**

Minh Duong, Michigan State University, Alina von Davier, Educational Testing Service

*Kernel Equating with Observed Mixture Distributions in a Single-Group Design*

Yi-Hsuan Lee, Educational Testing Service, Alina von Davier, Educational Testing Service

*Comparing Alternative Kernels for the Kernel Method of Test Equating: Gaussian, Logistic, and Uniform Kernels*

Shelby Haberman, Educational Testing Service

*Continuous Exponential Families: An Equating Tool*

Frank Rijmen, Educational Testing Service, Alina von Davier, Educational Testing Service

*Hypothesis Testing of Equating Differences in the KE Framework*

Haiwen Henry Chen, Educational Testing Service, Paul Holland, Educational Testing Service

*True Score Equating Under the KE Framework, the Associated Loglinear Model and Its Relation with Levine Equating*

### **Discussants**

*Robert Brennan, University of Iowa*

*Mark Reckase, Michigan State University*

# NCME • 2008 Annual Meeting & Training Sessions

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Tuesday, 2:15 p.m. – 3:45 p.m., Room 405 – 406, D3

## **Cognitive Diagnostic Assessment: Models and Issues – Paper Session**

### **Moderator**

*John Fremer, Caveon Test Security*

### **Presenters**

Tzur Karelitz, Tufts University, Jimmy de la Torre, Rutgers University

*When Do Measurement Models Produce Diagnostic Information? An Investigation of the Assumptions of Cognitive Diagnosis Modeling*

Leanne Ketterlin-Geller, University of Oregon, Eunju Jung, University of Oregon, Josh Geller, University of Oregon, Kimy Liu, University of Oregon

*Cognitive Diagnostic Assessment: Defining a Cognitive Model*

Young-Sun Lee, Columbia University, Jimmy de la Torre, Rutgers University

*Cognitive Diagnosticity of IRT-Constructed Assessment: An Empirical Investigation*

Jacqueline Leighton, University of Alberta, Ying Cui, University of Alberta, Ken Cor, University of Alberta

*Testing Expert-Based and Student-Based Cognitive Models: An Application of the Attribute Hierarchy Method and Hierarchical Consistency Index*

### **Discussant**

*Joanna Gorin, Arizona State University*

# New York City

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Tuesday, 2:15 p.m. – 3:45 p.m., Room 401 – 402, D4

## **Building Adaptive and Other Computer-Based Tests – Paper Session**

### **Moderator**

*Alexander Weissman, Educational Testing Service*

### **Presenters**

Juan Barrada, Universidad Autonoma De Barcelona, Francisco Abad, Universidad Autonoma De Madrid, Julio Olea, Universidad Autonoma De Madrid  
*Varying Item Selection Rules During the Test in Computerized Adaptive Testing*

Ying Cheng, University of Illinois, Urbana-Champaign, Jay Verkuilen, City University of New York

*Probabilistic Item Selection in Computerized Adaptive Testing Using the Maximum Entropy Criterion*

Jiawen Zhou, CRAME, University of Alberta, Mark Gierl, CRAME, University of Alberta, Ying Cui, CRAME, University of Alberta

*Computerized Adaptive-Attribute Testing: Incorporating Psychological Principles with Assessment Practices in Computerized Adaptive Testing*

Kathleen Scalise, University of Oregon, Bernard Gifford, University of California, Berkeley

*Innovative Item Types: Intermediate Constraint Questions and Tasks for Computer-Based Testing*

### **Discussant**

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

# NCME • 2008 Annual Meeting & Training Sessions

Tuesday, 2:15 p.m. – 3:45 p.m., Room 403 – 404, D5

## Testing Accommodations and Dimensionality Issues for Special Populations – Paper Session

### Moderator

*Deanna Morgan, College Board*

### Presenters

Lisa Harris, University of South Carolina, Huynh Huynh, University of South Carolina

*Using Technology for High-Stakes Testing Accommodations and Modifications: A Read-Aloud Modification Delivered by Computer-Based CD-ROM*

Linda Meloy, Western Illinois University, Liz Hollingworth, University of Iowa  
*Testing Accommodations for Students with an ADHD Diagnosis*

Lei Yu, Educational Testing Service, Wendy Yen, Educational Testing Service, Nisha Padminiamma, Educational Testing Service

*Effects of Calculator Use As a Modification on a High School Exit Exam*

Anja Romhild, University of Nebraska, Lincoln, James Bovaird, University of Nebraska, Lincoln

*Dimensionality and Invariance in English Language Proficiency Assessment of LEP Students*

### Discussant

*Scott Marion, National Center for the Improvement of Educational Assessment*

# New York City

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Tuesday, 4:05 p.m. – 6:05 p.m., Broadway Ballroom – Act II, E1

## **Future Directions for the Field of Educational Measurement – Invited Session**

*(Sponsored by the Graduate Student Issues Committee)*

### **Organizer**

*Tracey Magda, University of Iowa*

### **Moderator**

*Liz Hollingworth, University of Iowa*

### **Presenters**

Gregory Cizek, University of North Carolina, Chapel Hill

Howard Wainer, National Board of Medical Examiners

Catherine Welch, University of Iowa

Daniel Koretz, Harvard University

# NCME • 2008 Annual Meeting & Training Sessions

Tuesday, 4:05 p.m. – 6:05 p.m., Room 501 – 502, E2

## **Practical Psychometric Issues Encountered in Administering a Mixed-Format Test – Coordinated Session**

### **Organizer**

*Chi-Yu Huang, ACT, Inc.  
Deborah Harris, ACT, Inc.*

### **Moderator**

*Chi-Yu Huang, ACT, Inc.*

### **Presenters**

Ping Yin, ACT, Inc., Robert Brennan, University of Iowa  
*Estimating the Reliability of Mixed-Format Exams Using Generalizability Theory*

Troy Chen, ACT, Inc., Taehoon Kang, ACT, Inc.  
*A Simulation Study Investigating IRT Model-Item Fit for Mixed-Format Tests*

Youhua Wei, University of Florida, Chi-Yu Huang, ACT, Inc.  
*Investigating the Robustness of Different Scoring Methods for Mixed-Format Tests*

Thomas Proctor, University of Iowa, Deborah Harris, ACT, Inc.  
*Performance of Common Item Equating for Mixed-Format Tests That Contain a Single Extended Constructed Response Item*

Deborah Harris, ACT, Inc., Xiaohong Gao, ACT, Inc.  
*Creating Domain Scores for Mixed-Format Assessments*

### **Discussants**

*Amy Hendrickson, College Board  
Michael Kolen, University of Iowa*

# New York City

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Tuesday, 4:05 p.m. – 6:05 p.m., Room 405 – 406, E3

## Classification Accuracy and Consistency – Paper Session

### Moderator

*Brandon Vaughn, University of Texas, Austin*

### Presenters

Cigdem Alagoz, University of Georgia, Stephen Cramer, University of Georgia  
*Predictive Power of the HSGPT and Setting Up the Cutoff Score*

Wendy Lam, University of Massachusetts, Amherst, Shuhong Li, Educational Testing Service, Stephen Sireci, University of Massachusetts, Amherst  
*Evaluating Decision Accuracy And Decision Consistency on Multistage Adaptive Tests*

Won-Chan Lee, University of Iowa

*Classification Consistency and Accuracy for Complex Assessments Using Item Response Theory*

Lauress Wise, HumRRO, Ning Rui, University of Pennsylvania

*Computing and Communicating Test Accuracy for High-Stakes Decisions*

Ying Cheng, University of Illinois, Urbana-Champaign, Deanna Morgan, College Board

*Comparison of Methods for Constrained CAT Item Selection in Classification Accuracy and Consistency*

Karen Douglas, International Reading Association, Robert Mislevy, University of Maryland

*Estimating Classification Reliability for Educational Decisions Based on Multiple Scores*

### Discussant

*Jon Twing, Pearson*

# NCME • 2008 Annual Meeting & Training Sessions

Tuesday, 4:05 p.m. – 6:05 p.m., Room 401– 402, E4

## Methods of Improving Test Security – Paper Session

### Moderator

*Jacqueline Leighton, University of Alberta*

### Presenters

Ya-Hui Su, University of California, Berkeley, Wen-Chung Wang, National Chung Cheng University

*Collusion Effects on the Conditional Sympson and Hetter Online Procedure with Freeze Control*

Cheryl Huai-Hsuan Tseng, University of Texas, Austin

*A Comparison of Exposure Control Procedures on CAT Using the Generalized Partial Credit Model*

Qing Yi, Harcourt Assessment

*Item Pool Characteristics and Test Security Control in CAT*

Guemin Lee, Yonsei University, Do-Soon Park, Korea University, Myungho Nam, Korea Institute of Curriculum & Evaluation, Myunghwa Kim, Korea Institute of Curriculum & Evaluation, Min-Jeong Jeon, University of California, Berkeley, Keon-Seob Kim, Yonsei University

*Cheating Proof Testing System (CPTS) and Its Validity*

### Discussant

*Gary Schaeffer, CTB/McGraw-Hill*

# New York City

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Tuesday, 4:05 p.m. – 6:05 p.m., Room 403 – 404, E5

## **Growth Modeling: Policy, Applications, and Special Populations – Paper Session**

### **Moderator**

*Jennifer Kobrin, College Board*

### **Presenters**

Lihshing Wang, University of Cincinnati, Bethany Vice Bowling, Northern Kentucky University

*Neurocognitive Research Basis for Using Growth Models in Accountability Assessment*

Jessica Allen, University of Colorado, Boulder, Jennifer Dunn, Measured Progress

*The Interaction of Measurement, Models and Accountability: What Are the NCLB Growth Models Measuring?*

Zhen Wang, Pearson Educational Measurement, Husein Taherbhai, The Federation of the State Boards of Physical Therapy, Ming Xu, New York State Education Department, Sz-Shyan Wu, New York State Education Department  
*Modeling Growth in English Language Proficiency with Longitudinal Data*

Lynn Ahlgrim-Delzell, University of North Carolina, Charlotte, Claudia Flowers, University of North Carolina, Charlotte, Diane Browder, University of North Carolina, Charlotte

*Measuring Language and Reading Skills for Students with Intellectual Disabilities*

### **Discussant**

*Paul Nichols, Pearson*

# NCME • 2008 Annual Meeting & Training Sessions

Tuesday, 6:15 p.m. – 7:30 p.m., Times Square Ballroom

## No-Host Welcome Reception for Current and New Members

Members of NCME are invited to attend the No-Host Welcome Reception for current and new members. It will be held in conjunction with the NCME Graduate Student Issues Committee reception. Free drink tickets for graduate students and new members of NCME will be available at the desk near the entrance to the room. New members will wear ribbons on their conference badges. Please extend a welcome to them.

The reception is sponsored by:

ACT, Inc.

Buros Center for Testing

Caveon Test Security

College Board

Educational Testing Service

Evaluation Systems Pearson

GED Testing Service/American Council on Education

Graduate Management Admission Council

Measured Progress

Measurement Incorporated

National Board of Medical Examiners

## New York City

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Wednesday, 8:00 a.m. – 10:15 a.m., Broadway Ballroom

### **NCME Breakfast, Business Meeting and Presidential Address**

***The Impact of Anchor Test Configuration on Students' Proficiency Classifications***

#### **Presenter**

*Anne Fitzpatrick, Educational Testing Service*

## NCME • 2008 Annual Meeting & Training Sessions

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Wednesday, 10:35 a.m. – 12:05 p.m., Times Square Ballroom C, F1

### **Invited Address by the Recipient of NCME's 2007 Award for Career Contributions to Educational Measurement**

#### ***Schrödinger's Cat, Rasch's P and the Most Dangerous Equation***

##### **Moderator**

*Stephen Sireci, University of Massachusetts, Amherst*

##### **Presenter**

*Howard Wainer, National Board of Medical Examiners*

##### **Discussant**

*Andrew Gelman, Columbia University*

# New York City

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Wednesday, 10:35 a.m. – 12:05 p.m., Room 501– 502, F2

## **Current Practices In Standard Setting: Illustrations from a Range of Testing Programs – Coordinated Session**

### **Organizer**

*Chad Buckendahl, Alpine Testing Solutions*

### **Moderator**

*Brett Foley, Buros Center for Testing*

### **Presenters**

Russell Smith, Alpine Testing Solutions, James Olsen, Alpine Testing Solutions  
*Cross Validating Bookmark and Modified Contrasting Groups Standard Setting for an IT Certification*

Abdullah Ferdous, International Development Program, American Institutes for Research, Russell Smith, Alpine Testing Solutions  
*Considerations for Using Subsets of Items for Standard Setting*

Luz Bay, Measured Progress, Kevin Haley, Measured Progress, Liz Burton, Measured Progress

*When Push Comes to Shove: Modified Performance Profile Procedure as Viable Alternative to Body of Work Standard Setting Method*

Chad Buckendahl, Alpine Testing Solutions, Abdullah Ferdous, International Development Program, American Institutes for Research  
*Setting Cut Scores with Subsets of Items: An Empirical Illustration*

James Olsen, Alpine Testing Solutions, Russell Smith, Alpine Testing Solutions  
*Cross Validating Modified Angoff and Bookmark Standard Setting for a Home Inspection Certification*

### **Discussants**

*Mary Pitoniak, Educational Testing Service*  
*Steven Ferrara, American Institutes for Research*

# NCME • 2008 Annual Meeting & Training Sessions

Wednesday, 10:35 a.m. – 12:05 p.m., Rooms 403 – 404, F3

## Effects of Anchor Test Characteristics – Paper Session

### Moderator

*Mary Kino, Pearson*

### Presenters

Xiaohong Gao, ACT, Inc., Rongchun Zhu, ACT, Inc., Hanwei Chen, ACT, Inc., Deborah J. Harris, ACT, Inc.

*Impact of Anchor-Item Selections on Scale Transformation under IRT Equating*

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

*Effects of Anchor Test Characteristics on Linking Multidimensional Item Calibrations*

Yang Lu, Michigan State University, Mark Reckase, Michigan State University

*Comparison of Different Choices of Common Items in MIRT Equating*

Nancy Bené, American Nurses Credentialing Center, Christine Depascale, American Nurses Credentialing Center

*The Effect of Anchor Test Characteristics on Equating Scores of a Credentialing Examination*

### Discussant

*Brad Moulder, Educational Testing Service*

# New York City

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Wednesday, 10:35 a.m. – 12:05 p.m., Room 405 – 406, F4

## **Approaches to Test Assembly – Paper Session**

### **Moderator**

*Walter D. Way, Pearson*

### **Presenters**

Pei-Hua Chen, Florida State University, Barbara Dodd, University of Texas, Austin

*A Sampling Approach to Assemble Polytomous Items Based on the Partial Credit Model*

Ying Cheng, University of Illinois, Urbana-Champaign, Hua-Hua Chang, University of Illinois, Urbana-Champaign

*A New Heuristic for Parallel Form Assembly Based on Information Curve Matching*

Yuki Nozawa, University of Iowa, Pei-Hua Chen, Florida State University  
*Extension of the Cell Only Test Assembly Method*

Jon-Michael Brasfield, University of North Carolina, Greensboro, Wonsuk Kim, Measured Progress, Matthew Finkelman, Measured Progress, Louis Roussos, Measured Progress

*A Method for Cooperative Test Assembly for Large-Scale Assessment*

### **Discussant**

*James Wollack, University of Wisconsin*

# NCME • 2008 Annual Meeting & Training Sessions

Wednesday, 10:35 a.m. – 12:05 p.m., Room 401 – 402, F5

## Approaches to Construct Validation – Paper Session

### Moderator

*Sherry Rose-Bond, Columbus Public Schools*

### Presenters

Saad Chahine, Ontario Institute for Studies in Education of the University of Toronto, Ruth Beatty, Ontario Institute for Studies in Education of the University of Toronto, Monique Herbert, Ontario Institute for Studies in Education of the University of Toronto, Eunice Jang, Ontario Institute for Studies in Education of the University of Toronto

*If We Change the Context, Then Does That Change the Construct Measured?*

Xiangdong Yang, Indiana University, Lesa Hoffman, University of Nebraska  
*A Construct Modeling Approach to Evaluating Measurement Invariance*

Rebecca Gokiert, University of Alberta, Jacqueline Leighton, University of Alberta

*Large-Scale Science Assessment: Three Forms of Construct Validity Evidence*

Dawn Xiaohui Zhao, American Association of Medical College

*Investigating the Impact of a Combination of Factors on the Validity of Customized Norms*

Andrew Poggio, Computerized Assessments and Learning, Patrick Irwin, University of Kansas, Brooke Nash, University of Kansas

*The Consequential Impact of Formative Assessments On Student Learning and Instruction: How Are Educators Using Formative Feedback?*

### Discussant

*Ruth Childs, OISE/University of Toronto*

# New York City

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Wednesday, 12:25 p.m. – 1:55 p.m., Times Square Ballroom C, G1

## **Accessibility, Comparability, and Validity: Evaluating Test Score Equivalence across Test Forms and Subpopulations – Invited Symposium**

### **Moderator**

*Kadriye Ercikan, University of British Columbia*

### **Presenters**

Neil Dorans, Educational Testing Service, Kyndra Middleton, Educational Testing Service

*Challenges Facing Extreme Forms of Linking*

Walter D. Way, Pearson, Chow-Hong Lin, Pearson, Katie Larson McClarty, Pearson, Jadie Kong, Pearson

*Maintaining Score Equivalence as Tests Transition Online: Issues, Approaches and Trends*

Linda Cook, Educational Testing Service, Cara Cahalan Laitusis, Educational Testing Service

*Accommodation or Modification: An Investigation of Read Aloud Test Changes for Reading Assessments*

Ronald Hambleton, University of Massachusetts, Amherst

*Guidelines for Translating and Adapting Educational and Psychological Tests*

Avi Allalouf, National Institute for Testing and Evaluation (Israel)

*Comparability of Different Language Test Forms*

Jamal Abedi, University of California, Davis

*Evaluating Test Score Comparability for English Language Learners*

### **Discussant**

*Stephen Sireci, University of Massachusetts, Amherst*

# NCME • 2008 Annual Meeting & Training Sessions

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Wednesday, 12:25 p.m. – 1:55 p.m., Room 501 – 502, G2

## **The NCLB Growth Model Pilot Program: Consequences and Alternatives – Coordinated Session**

### **Organizer**

*Derek Briggs, University of Colorado, Boulder*

### **Moderator**

*Liz Hollingworth, University of Iowa*

### **Presenters**

Jennifer Dunn, National Center for the Improvement of Educational Assessment  
*Holding Schools Accountable for the Growth of Non-Proficient Students: Coordinating Measurement and Accountability*

Jonathan Weeks, University of Colorado, Thakur Karkee, CTB/McGraw-Hill,  
Daniel Lewis, CTB/McGraw-Hill

*From Status to Growth to Value-Added: The Impact on School Accountability*

Derek Briggs, University of Colorado, Boulder, Jonathan Weeks, University of Colorado, Edward Wiley, University of Colorado, Henry Braun, Boston College  
*The Impact of Vertical Scaling Decisions on Growth Projections*

Andrew Ho, University of Iowa, Tracey Magda, University of Iowa  
*The Dependency of Growth Models on Proficiency Standards*

Damian Betebenner, National Center for the Improvement of Educational Assessment

*Normative and Criterion Referenced Conceptions of Student Growth*

### **Discussant**

*Joseph Martineau, Michigan Department of Education*

# New York City

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Wednesday, 12:25 p.m. – 1:55 p.m., Room 403 – 404, G3

## **Differential item Functioning Detection: New Procedures and Comparisons – Paper Session**

### **Moderator**

*David Miller, University of Florida*

### **Presenters**

Craig Wells, University of Massachusetts, Amherst, Allan Cohen, University of Georgia, Athens, Jeffrey Patton, University of Massachusetts, Amherst

*A Range-Null Hypothesis Approach for Testing DIF under the Rasch Model*

Ratna Nandakumar, University of Delaware, Lashona Burkes, University of Delaware, Likun Hou, University of Delaware

*DIF in Dichotomous Item Data: Comparison of Mantel-Haenszel, SIBTEST, and HGLM Procedures*

Gabriel Lopez Rivas, University of South Florida, Stephen Stark, University of South Florida, Oleksandr Chernyshenko, University of Canterbury

*The Effects of Referent Item Parameters upon DIF Detection Using the Free-Baseline Likelihood Ratio Test*

Randall Penfield, University of Miami

*Using an Odds Ratio Approach for Evaluating Differential Distractor Functioning under the Nominal Response Model*

### **Discussant**

*Arturo Olivarez, Texas Tech University*

# NCME • 2008 Annual Meeting & Training Sessions

Wednesday, 12:25 p.m. – 1:55 p.m., Room 405 – 406, G4

## Test-Taking Effort and Response Time – Paper Session

### Moderator

*Gale Roid, Southern Methodist University*

### Presenters

Shu-Ren Chang, Rockford Public Schools, IL, Barbara Plake, University of Nebraska, Lincoln, Shu-Mei Lien, University of Nebraska, Lincoln

*Development and Applications of Detection Indices for Measuring Guessing Behaviors and Test-Taking Effort in Computerized Adaptive Testing (CAT)*

Siang Chee Chuah, American Institute of Certified Public Accountants, Wim van der Linden, University of Twente

*Detection of Aberrant Candidate Responses: Improving Detection by Combining Response Pattern and Response Time Data*

Patrick Meyer, James Madison University

*A Mixture Rasch Model with Item Response Time Components*

Steven Wise, James Madison University, Christine DeMars, James Madison University

*The Impact of Examinee Non-Effort on the Validity of Assessment Test Data*

Aaron Douglas, Mathematica Policy Research, Inc.

*An Investigation of How Restrictive Time Limits Affect the Fundamental Assumptions of Item Response Theory (IRT) Models*

### Discussant

*Robert Smith, Educational Testing Service*

# New York City

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Wednesday, 12:25 p.m. – 1:55 p.m., Room 401 – 402, G5

## **Issues in Essay Scoring – Paper Session**

### **Moderator**

*Susan Brookhart, Brookhart Enterprises*

### **Presenters**

Carol Myford, University of Illinois, Chicago, Edward Wolfe, Virginia Tech  
*Detecting Differential Rater Severity/Lenienty in the Advanced Placement English Literature and Composition Examination Using Benchmark Essays*

Chaitanya Ramineni, University of Delaware, Brian Clauser, National Board of Medical Examiners, Polina Harik, National Board of Medical Examiners, Dave Swanson, National Board of Medical Examiners

*Contrast Effects in Standardized Patient Ratings of the USMLE Step2 Clinical Skills Examination*

Paul Deane, Educational Testing Service, Olya Gurevich, Powerset, Inc.  
*Applying Content Similarity Metrics to Essay Scoring: Differences Between Native and Nonnative Speaker Responses to a TOEFL Integrated Writing Prompt*

Mark Shermis, University of Florida, Cecilia Diao, University of Florida  
*The Impact of Automated Essay Scoring on Writing Outcomes*

Richard Schwarz, CTB/McGraw-Hill, Wajih Alaiyan, CTB/McGraw-Hill  
*Some Factors Hypothesized to Impact the Effectiveness of Latent Semantic Analysis in Essay Scoring*

### **Discussant**

*Catherine Welch, University of Iowa*

# NCME • 2008 Annual Meeting & Training Sessions

Wednesday, 2:15 p.m. – 3:45 p.m., Times Square Ballroom C, H1

## **English Language Learners and NCLB 101 – Invited Symposium**

*(Sponsored by the Diversity Issues in Testing Committee)*

### **Organizer**

*Cara Cahalan Laitusis, Educational Testing Service*

### **Presenters**

Jamal Abedi, University of California, Davis

*NCLB and English Language Learners: Review of Legislative Requirements and Problems With Identification, Classification, and Reclassification*

Micheline Chalhoub-Deville, University of North Carolina, Greensboro

*Assessments for K12 English Language Learners: What Tests Are ELLs Taking and Ways to Improve Them*

Charlene Rivera, George Washington University

*Testing Accommodations for ELLs: What We Know and What We Still Need to Know*

John Young, Educational Testing Service

*Beyond NCLB: Accommodations on Admissions and Licensure Assessments for ELLs . . . Is This the Future?*

# New York City

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Wednesday, 2:15 p.m. – 3:45 p.m., Room 501 – 502, H2

## **Flexible Analysis Strategies for Cognitive Diagnosis – Coordinated Session**

### **Organizer/Moderator**

*Jeff Douglas, University of Illinois*

### **Presenters**

Robert Henson, University of North Carolina, Greensboro, Jonathan Templin, University of Georgia, Matthew Burke, University of North Carolina, Greensboro, John Willse, University of North Carolina, Greensboro

*Estimation of the Log-Linear Model with Latent Classes for the Purpose of Cognitive Diagnosis*

Matthew Burke, University of North Carolina, Greensboro, Robert Henson, University of North Carolina, Greensboro, Jonathan Templin, University of Georgia

*Assessing English Proficiency with the Logistic Cognitive Diagnosis Model*

Jonathan Templin, University of Georgia, Robert Henson, University of North Carolina, Greensboro, Andre Rupp, University of Maryland, Eunice Jang, University of Toronto

*Cognitive Diagnosis Models for Nominal Response Data*

John Willse, University of North Carolina, Greensboro, Robert Henson, University of North Carolina, Greensboro, Jonathan Templin, University of Georgia

*K-Means with Latent Class Refinement: Cognitive Diagnosis with Few Assumptions*

Chia-Yi Chiu, University of Illinois, Jeff Douglas, University of Illinois  
*Cluster Analysis for Cognitive Diagnosis: Relationships with Latent Class Analysis and Applications*

### **Discussant**

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

# NCME • 2008 Annual Meeting & Training Sessions

Wednesday, 2:15 p.m. – 3:45 p.m., Room 403 – 404, H3

## Alternative Methods of Equating Using Common Items – Paper Session

### Moderator

Barbara Foster, *American Board of Obstetrics and Gynecology*

### Presenters

Dong-In Kim, CTB/McGraw-Hill, Guemin Lee, Yonsei University, Jungnam Kim, CTB/McGraw-Hill

*A Comparison of Random-Groups Design and Common-Item Design in IRT Equating: A Monte Carlo Study*

Yanlin Jiang, Educational Testing Service, Jinghua Liu, Educational Testing Service, Hyeon-Joo Oh, Educational Testing Service, Miriam Cahn, Educational Testing Service

*Comparing Equating Results for Nonlinear Methods in the Non-Equivalent Groups Anchor Test Design*

Jianlin Hou, University of Iowa and the School District of Palm Beach County, Tianyou Wang, University of Iowa, Walter Vispoel, University of Iowa  
*Effectiveness of the Hybrid Levine Equipercentile and Modified Frequency Estimation Methods in Reducing Equating Error under the Common-Item Nonequivalent Groups Design*

Dongyang Li, University of Maryland, Ping Yin, ACT, Inc.

*Equating with Polytomous IRT Models under the Common-Item Nonequivalent Groups Design: A Simulation Study*

### Discussant

Xuejun Shen, *Stanford University*

# New York City

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Wednesday, 2:15 p.m. – 3:45 p.m., Room 405 – 406, H4

## **Item Difficulty and Information – Paper Session**

### **Moderator**

*Eugenio Gonzalez, IEA-ETS Research Institute*

### **Presenters**

Erika Hall, Pearson, Timothy Ansley, University of Iowa

*Exploring the Use of Item Bank Information to improve IRT Item Parameter Estimation*

Joanna Gorin, Arizona State University, Andre Rupp, University of Maryland, Dubravka Svetina, Arizona State University

*An HLM Analysis of Reading Comprehension Item Difficulty Factors*

Dmitry Belov, Law School Admission Council, Lily Knezevich, Law School Admission Council

*Predicting Item Difficulty with Semantic Similarity Measures*

Fanmin Guo, Graduate Management Admission Council, Lawrence Rudner, Graduate Management Admission Council, Eileen Talento-Miller, Graduate Management Admission Council, Kara Siegert, Graduate Management Admission Council

*Scaling Item Difficulty Estimates from Non-Equivalent Groups*

Susan Embretson, Georgia Institute of Technology

*Understanding and Quantifying Cognitive Complexity Level in Multiple Choice Mathematical Items*

### **Discussant**

*Derek Briggs, University of Colorado, Boulder*

# NCME • 2008 Annual Meeting & Training Sessions

Wednesday, 2:15 p.m. – 3:45 p.m., Room 401 – 402, H5

## Multidimensional Models and Extensions – Paper Session

### Moderator

*Hong Jiao, University of Maryland*

### Presenters

Weiling Deng, Educational Testing Service, Jimmy de la Torre, Rutgers University, Haniza Yon, Educational Testing Service

*Improving IRT-Based Evaluation of Person Fit: A Multidimensional Approach*

James Roberts, Georgia Institute of Technology, Vanessa Thompson, Georgia Institute of Technology, Hi Shin Shim, Georgia Institute of Technology

*A Multidimensional Version of the Generalized Graded Unfolding Model*

Marc Gessaroli, National Board of Medical Examiners

*Implications of Finding Multidimensional Information in Unidimensional Data*

Litong Zhang, CTB/McGraw-Hill, Brian Habing, University of South Carolina

*Proposal for Multidimensional Item Response Theory Model Estimation for Non-Normal Abilities*

### Discussant

*Jane Rogers, University of Connecticut*

# New York City

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Wednesday, 4:05 p.m. – 6:05 p.m., Times Square Ballroom C, I1

## **Policy, Technical, and Operational Issues for School Accountability on Growth – Invited Symposium**

### **Organizer/Moderator**

*Huynh Huynh, University of South Carolina*

### **Presenters**

Charity Smith, Arkansas Department of Education

*School Accountability to Close Achievement Gaps among Students: The Intention of Arkansas Act 35*

Huynh Huynh, University of South Carolina

*Development of School Growth Index and Preliminary Steps about Setting School Growth Categories*

Robert Kennedy, University of Arkansas for Medical Sciences

*Stakeholders Review of School Growth Categories*

Anita Rawls, University of South Carolina, Huynh Huynh, University of South Carolina

*Assessing Reliability and Validity for School Growth Index: A Survey of Current Practices*

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

*Assessing Reliability and Validity for School Growth Index: Technical Considerations*

Eugene Kennedy, Louisiana State University

*Beyond Arkansas Act 35 and to the National Scene: Research on Steps in Closing Gaps among Subgroups*

### **Discussants**

*Peter Behuniak, University of Connecticut*

*William Schafer, University of Maryland*

# NCME • 2008 Annual Meeting & Training Sessions

Wednesday, 4:05 p.m. – 6:05 p.m., Room 501– 502, 12

## Dissecting the Bookmark Standard Setting Procedure – Coordinated Session

### Organizer/Moderator

*Christina Schneider, CTB/McGraw-Hill*

### Presenters

Canda Mueller, Pearson, Christina Schneider, CTB/McGraw-Hill  
*Response Probability Criterion and Subgroup Performance*

Matthew Schulz, Pacific Metrics Corp., Christina Peterson, ACT, Inc.  
*NAEP Research Related to the Bookmark Procedure*

Susan Davis, Alpine Testing Solutions, Chad Buckendahl, Alpine Testing Solutions, Tzu-Yun Chin, University of Nebraska, Lincoln  
*Comparing the Angoff and Bookmark Methods for an International Licensure Examination*

Karla Egan, CTB/McGraw-Hill, Christina Schneider, CTB/McGraw-Hill, Lisa Keller, University of Massachusetts, Amherst  
*The Influence of Item Type on Cut Scores in the Bookmark Standard Setting Procedure*

Christina Schneider, CTB/McGraw-Hill, Karla Egan, CTB/McGraw-Hill, Adele Brandstrom, CTB/McGraw-Hill, Dong-In Kim, CTB/McGraw-Hill  
*Stability of Achievement-Level Descriptors Across Time and Equating Methods*

### Discussants

*Ronald Hambleton, University of Massachusetts, Amherst*  
*Daniel Lewis, CTB/McGraw-Hill*

# New York City

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Wednesday, 4:05 p.m. – 6:05 p.m., Room 403 – 404, I3

## Dimensionality and Local Item Dependence – Paper Session

### Moderator

Zhen Wang, Pearson

### Presenters

Mary Pommerich, Defense Manpower Data Center, Kyoko Ito, HumRRO

*An Examination of the Properties of Local Dependence Measures When Applied to Adaptive Data*

Angela Argo, Arizona State University, Joanna Gorin, Arizona State University, Kikumi Tatsuoka, Columbia Teachers College

*Cognitive Components of Item Dependence for Passage-Based Reading Comprehension Tests*

Roy Levy, Arizona State University

*Factors Affecting the Dimension of Best Measurement and Connections with Unidimensional Modeling*

Joshua Goodman, University of North Carolina. Greensboro, Richard Luecht, University of North Carolina, Greensboro, Oliver Zhang, American Institute of Certified Public Accountants

*Scoring and Scaling Decisions in Tests with Complex Performance Assessment: Examining Item Dependencies and Dimensionality*

Ningying Wu, Purdue University, Susan Maller, Purdue University

*Does DIF Signal the Lack of Essential Unidimensionality: A Monte Carlo Simulation Study on the Nature of DIF and Dimensionality in Item Response Theory*

### Discussant

Michael Jodoin, Educational Testing Service

# NCME • 2008 Annual Meeting & Training Sessions

Wednesday, 4:05 p.m. – 6:05 p.m., Room 405 – 406, I4

## Current Challenges in Equating – Paper Session

### Moderator

*Qing Yi, Harcourt Assessment*

### Presenters

Sungworn Ngudgratoke, Michigan State University

*Uncertainty in Standard Errors of Population Invariance Measures*

Rebecca Moran, Educational Testing Service

*Investigation of a Nonlinear Transformation to Improve NAEP Score Linking for Low- and High-Performing Groups of Students*

Insu Paek, Educational Testing Service, Jinghua Liu, Educational Testing Service, Hyeon-Joo Oh, Educational Testing Service

*An Investigation of Propensity Score Matching on Linear/Nonlinear Observed Score Equating Method in a Large Scale Assessment*

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

*Two Possible Solutions to the Small-Sample Equating Problem*

Liru Zhang, Delaware Department of Education, Patsy Kersteter, Delaware Department of Education, Darlene Bolig, Delaware Department of Education, Shudong Wang, Harcourt Assessment, Inc.

*An Investigation of Linking a State Assessment to the 2003 National Achievement of Educational Progress (NAEP) for 4th and 8th Grade Reading*

### Discussant

*Matthew Johnson, Baruch College, CUNY*

## New York City

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Wednesday, 4:05 p.m. – 6:05 p.m., Room 401 – 402, 15

### **Issues in Computer-Based Testing – Paper Session**

#### **Moderator**

*Laurie Davis, Pearson*

#### **Presenters**

Leslie Keng, Pearson, Tsung-Han Ho, University of Texas, Austin, Tzu-An Chen, University of Texas, Austin, Barbara Dodd, University of Texas, Austin

*A Comparison of Item and Testlet Selection Procedures in Computerized Adaptive Testing*

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

*Evaluating the Impacts of Item Exposure Procedures on Ability Estimates in CAT When Items Are Disclosed*

Nathan Thompson, Prometric, Shungwon Ro, Prometric, Joy Matthews-Lopez, Prometric, Vincent Maurelli, Prometric

*Computerized Classification Testing with the Composite Likelihood Ratio*

Fumiko Samejima, University of Tennessee

*Truncated Logistic Model for Computerized Adaptive Testing*

#### **Discussant**

*R.J. De Ayala, University of Nebraska, Lincoln*

# NCME • 2008 Annual Meeting & Training Sessions

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Wednesday, 4:05 p.m. – 6:05 p.m., Broadway Ballroom – Act 4, I6

## Graduate Student Poster Session

(Sponsored by the Graduate Student Issues Committee)

### Organizers

*Tracey Magda, University of Iowa  
Su Baldwin, University of Massachusetts, Amherst  
Yan Liu, University of British Columbia  
Dubravka Svetina, Arizona State University  
Hi Shin Shim, Georgia Institute of Technology  
Tim Farnsworth, University of California, Los Angeles*

### Presenters

Tao Hong, Purdue University, Ningying Wu, Purdue University, Susan Maller, Purdue University, Laikwai Pei, Purdue University  
*Assessing DIF in Polytomous Items Using the MIMIC Modeling Approach*

Greg Applegate, Purdue University, Brian French, Purdue University, Holmes Finch, Ball State University  
*A Comparison of the Confidence Intervals for Factor Pattern Coefficients with Maximum Likelihood and Bootstrap Estimation*

Katherine Furgol, University of Iowa, Andrew Ho, University of Iowa  
*Is NCLB Inflating Trends at Proficiency? A Nonparametric, Cross-state Analysis of Trends across Cut Scores*

Leslie Hendrix, University of South Carolina  
*Importance of Correlation Structure in Approximating the Posterior Distribution in IRT Model Fit*

Bobby Naemi, Rice University, Sooyeon Kim, Michael Walker, Educational Testing Service  
*Empirical Bayesian Adjustment of Linear Equating Parameters to Reduce Error in Small Samples*

Jeffrey Patton, University of Massachusetts, Amherst, Craig Wells, University of Massachusetts, Amherst  
*An Investigation of the Standardized P-difference*

Meng Wu, University of South Carolina  
*Assessing the Asymptotic Properties of the DETECT Statistic*

## New York City

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Susan Bastion, University of Kansas, William Skorupski, University of Kansas  
*Comparison of Testlet Models*

Michelle Croft, University of Iowa

*Modified Assessments for the NCLB “Two Percent” Students: Analysis of the Legal Requirements, Psychometric Standards, and Policy*

Andrew Dwyer, University of Nebraska, Lincoln, James Bovaird, University of Nebraska, Lincoln, Jamie Marincic, University of Nebraska, Lincoln

*Computing Validity Coefficients for Zero-inflated Poisson Criterion Variables*

Hirotaka Fukuhara, Florida State University, Akihito Kamata, Florida State University

*A Testlet Response-theory DIF Detection Model: A Bayesian Approach*

Yan Huo, University of Illinois, Urbana-Champaign, Hua-Hua Chang, University of Illinois, Urbana-Champaign

*Two Modified A-stratified Item Selection Methods in the CAT-based Wagner Assessment Test*

Pamela Kaliski, James Madison University

*Using Full Information Bifactor Analysis to Examine the Quality of Polytomous Neuroticism Items*

Feifei Li, University of Maryland

*A Comparison of Standard and Modified Testlet IRT Models through Bayesian Methods*

Xin Li, Michigan State University

*Evaluating Standard Error Estimates of IRT-based Calibrations of Linking Items Sensitive to Multiple Dimensions*

Zhen Li, University of British Columbia, Bruno Zumbo, University of British Columbia

*Impact of Differential Item Functioning on Statistical Conclusions*

Pauline Parker, University of Massachusetts, Amherst, Craig Wells, University of Massachusetts, Amherst

*A Statistic for Assessing Model Fit at the Test Score Level*

Bryce Pride, University of South Florida, Yi-Hsin Chen, University of South Florida, Teresa Chavez, University of South Florida, Corina Owens, University of South Florida, Yuh-Chyn Leu, National Taipei University of Education

*An Exploration of Cognitive Skills and Knowledge underlying the TIMSS-2003 Fourth Grade Mathematics Items*

## NCME • 2008 Annual Meeting & Training Sessions

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Anja Romhild, University of Nebraska, Lincoln, Gabriel Nagy, Max Planck Institute for Human Development, Jürgen Baumert, Max Planck Institute for Human Development

*Controlling Type I Error in Applications of the MIMIC Model for DIF detection: A Monte Carlo Simulation study*

Alan Schnebly, University of Wisconsin, Milwaukee

*The Effect of Unmatched Distributions for Ability Estimates When Using Bayesian Item Selection Methods in Computer Adaptive Testing*

Dipendra Subedi, Michigan State University, Joseph Martineau, Michigan Department of Education

*A Backward Approach to Differential Item Functioning Analysis: Let's Put Theory First*

Mi-young Webb, University of Georgia, Stacey Neuharth-Pritchett, University of Georgia

*Investigating Differential Item Functioning on the Student-Teacher Relationship Scale: A Cross-Validation with Multigroup CFA Model and MIMIC Model*

Xiaowen Zhu, University of Pittsburgh, Clement Stone, University of Pittsburgh  
*An Evaluation of Different Approaches to Subscore Augmentation for the Multi-state Bar Examination*

Carol Barry, James Madison University, Sara Finney, James Madison University  
*Does It Matter How Data is Collected? A Comparison of Testing Conditions and the Implications for Validity*

Daniel Breidenbach, Purdue University, Brian French, Purdue University  
*Construct Validity of the CIBS-II via Confirmatory Factor Analysis*

Ting-Wei Chiu, Rutgers University, Gregory Camilli, Rutgers University  
*New IRT-based Corrections for Guessing and Applications in DIF Analysis*

Nina Deng, University of Massachusetts, Amherst, Ronald Hambleton, University of Massachusetts, Amherst

*Checking the Dimensionality of the Massachusetts Adult Proficiency Tests (MAPT) with Both Real and Simulated Data Sets*

Sarah Hagge, University of Iowa, Robert Brennan, University of Iowa  
*Population Invariance: A Comparison of Linking Procedures and Sample Sizes*

Yeon-Jeong Kim, Yonsei University, In-Young Park, Yonsei University, Guemin Lee, Yonsei University

*Sample Size and Test Length Effects on Conditional Standard Error of Measurement in Item Response Theory and Generalizability Theory Using Simulation Techniques*

## New York City

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Yong-Sang Lee, University of California, Berkeley, Xiaoting Huang, University of California, Berkeley

*A Simulation Study of Collinearity and Centering Effects in HLM*

Dongyang Li, University of Maryland

*Comparing 3PL and Testlet IRT Models in the Treatment of Testlet-based Test Scores*

Tie Liang, University of Massachusetts, Amherst, Kyung Han, University of Massachusetts, Amherst, Peter Baldwin, National Board of Medical Examiners

*Computer Software from Graphical Residual Analysis*

Carina McCormick, University of Nebraska, Lincoln, Anja Romhild, University of Nebraska, Lincoln, Kurt Geisinger, University of Nebraska, Lincoln

*Current Validation Practice for Academic Achievement Tests*

Yasuko Nogami, Tokyo Institute of Technology, Shinichi Mayekawa, Tokyo Institute of Technology, Natsuko Kataoka, Japan Institute for Educational Measurement, Inc

*Solving Practical Issues of Maintaining Item Banks: Conversion of IRT Model from 3PL to 2PL*

Tiese Roxbury, University of North Carolina, Greensboro, Matthew Burke, University of North Carolina, Greensboro

*Language Testing and DIF: A Comparison of DIF Methods*

Vanessa Thompson, Georgia Institute of Technology, James Roberts, Georgia Institute of Technology

*Evaluation of Alternative Parameter Estimation Methods in the Generalized Graded Unfolding Model (GGUM)*

Priya Kannan, University of Pittsburgh

*Item Parameter Recovery for Multidimensional Graded Response Model Using Different Estimation Methods*

## **NCME • 2008 Annual Meeting & Training Sessions**

Thursday, 5:45 a.m. – 7:30 a.m., Crowne Plaza Times Square Hotel Lobby

### **NCME Fitness Run/Walk**

#### **Organizer**

*Brian French, Purdue University*

Run a 5K or walk a 2.5K course in Riverside Park, Manhattan's most spectacular waterfront park. Meet in the lobby of the Crowne Plaza Times Square Hotel at 5:45 a.m.

**PRE-REGISTRATION IS REQUIRED.**

The event is made possible through the sponsorship of:

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National Board of Medical Examiners

# New York City

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Thursday, 8:15 a.m. – 10:15 a.m., Times Square Ballroom C, J1

## Growth Modeling Approaches and Applications – Paper Session

### Moderator

*Scott Elliot, SEG Assessment*

### Presenters

Yuan Hong, Rutgers University, Lihua Yao, CTB/McGraw-Hill, Daniel Lewis, CTB/McGraw-Hill, Keith Boughton, CTB/McGraw-Hill

*Value-Added Modeling: A Comparison of Several Approaches Using Empirical Data*

Hui Deng, College Board, Andrew Wiley, College Board

*Modeling Growth of SAT Performance Using Repeated Measures Data*

Seon-Hi Shin, California State University, Long Beach, Alvaro Arce-Ferrer, Harcourt Assessment, Inc.

*Three Approaches to Measuring Individual Growth*

Tony Thompson, Pearson

*Using CAT to Increase Precision in Growth Scores*

### Discussant

*Howard Everson, Fordham University*

# NCME • 2008 Annual Meeting & Training Sessions

Thursday, 8:15 a.m. – 10:15 a.m., Room 405 – 406, J2

## **Different Facets of Test Equity and Fairness: Differential Prediction, Differential Item Functioning and Score Equity Assessment – Coordinated Session**

### **Organizers**

*Jinghua Liu, Educational Testing Service  
Neil Dorans, Educational Testing Service*

### **Moderator**

*Jinghua Liu, Educational Testing Service*

### **Presenters**

*Neil Dorans, Educational Testing Service  
Three Facets of Fairness*

*John Young, Educational Testing Service  
Differential Validity and Prediction: Race and Sex Differences in College Admissions Testing*

*Raymond Mapuranga, Educational Testing Service, Neil Dorans, Educational Testing Service, Kyndra Middleton, Educational Testing Service  
A Review of Recent Developments in Differential Item Functioning*

*Jinghua Liu, Educational Testing Service, Neil Dorans, Educational Testing Service  
Score Equity Assessment? Development of a Prototype Analysis*

*Sandip Sinharay, Educational Testing Service, Longjuan Liang, Educational Testing Service, Neil Dorans, Educational Testing Service  
English Proficiency and Its Effects on Fairness Assessment*

### **Discussants**

*Yi Du, Data Recognition Corporation  
Nancy Peterson, ACT, Inc.*

# New York City

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Thursday, 8:15 a.m. – 10:15 a.m., Room 401– 402, J3

## Measures of Differential Item Functioning – Paper Session

### Moderator

*John Mattar, American Institute of Certified Public Accountants*

### Presenters

Karina Gattamorta, University of Miami, Randall Penfield, University of Miami  
*Incorporating a Taxonomy of Differential Step Functioning to Guide the Interpretation of DIF in Polytomous Items*

Karen Wright, CTB/McGraw-Hill, Andrea Gotzmann, University of Alberta  
*Examination of Type I Error and Power Rates for Items Favoring the Reference and Focal Group with Small Sample Sizes When DIF Items Are Unbalanced*

Kathleen Banks, University of Iowa, Cindy Walker, University of Wisconsin, Milwaukee

*Establishing Effect Size Guidelines for Interpreting Bundles in SIBTEST*

Michaela Gelin, CTB/McGraw-Hill, Andrea Gotzmann, University of Alberta, Karen Wright, CTB/McGraw-Hill, Anne Murphy, CTB/McGraw-Hill, Monique Fountain, CTB/McGraw-Hill

*Development and Evaluation of an Effect Size Measure for the Linn-Harnish Method of DIF Detection*

Dolores Hidalgo, University of Murcia, Spain, Juana Gomez-Benito, University of Barcelona, Spain, Jose Luis Padilla, University of Granada, Spain

*Logistic Regression Analysis for Differential Item Functioning Detection: Efficacy of R-square and Odds-Ratio Effect Size Statistics*

### Discussant

*Lisa Keller, University of Massachusetts, Amherst*

Thursday, 8:15 a.m. – 10:15 a.m., Room 403 – 404, J4

## Generalizability Models and Raters – Paper Session

### Moderator

*Jason Meyers, Pearson*

### Presenters

Lawrence DeCarlo, Columbia University

*On a Hierarchical Rater Model for Essay Grading: Incorporating a Latent Class Signal Detection Model*

Kara Siegert, Graduate Management Admission Council, Fanmin Guo, Graduate Management Admission Council

*Multiple Methods for Assessing the Reliability of an Analytical Writing Assessment*

Shiu-Lien Wu, National Chung Cheng University, Wang Wen-Chung, National Chung Cheng University

*The Generalized Random-Effects Rating Scale Model*

Chi-Ming Su, National Chung Cheng University, Wen-Chung Wang, National Chung Cheng University

*The Generalized Multi-Parameter Facets Model*

### Discussant

*Patrick Meyer, James Madison University*

## New York City

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Thursday, 8:15 a.m. – 10:15 a.m., Room 501 – 502, J5

### Procedures for Assessing IRT Model Fit – Paper Session

#### Moderator

*Joseph Betts, Renaissance Learning*

#### Presenters

Su Zhang, University of Iowa, Yuki Nozawa, University of Iowa, Kyong Hee Chon, University of Iowa

*Posterior Predictive Checking of Unidimensional Item Response Theory Models*

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

*Assessing Model Fit in IRT Using PPMC Methodology without MCMC*

Tie Liang, University of Massachusetts, Amherst, Craig Wells, University of Massachusetts, Amherst

*A Nonparametric Approach for Assessing Model Fit in a Mixed Format Test*

Taehoon Kang, ACT, Inc., Troy Chen, ACT, Inc.

*An Investigation of the Performance of the Generalized S-X2 Item-Fit Index for Samejima's Graded Response Model*

#### Discussant

*Roy Levy, Arizona State University*

# NCME • 2008 Annual Meeting & Training Sessions

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Thursday, 10:35 a.m. – 12:05 p.m., Times Square Ballroom C, K1

## **Cutting Edge Indicators of Educational Quality for Predicting Global Competitiveness – Invited Session**

*(Sponsored by the National Association of Testing Directors)*

### **Organizer**

*Bonnie Strykowski, Dayton Public Schools*

### **Moderator**

*Michael Flicek, Natrona School District*

### **Presenters**

Patrick Gonzales, National Center for Education Statistics

*International Education Indicators: Examining U.S. Education in a Global Context*

David Berliner, Arizona State University

*Predicting Predictive Validity: Why the International Tests Can Tell Us Nothing about the Future Health of the US Economy*

Kenneth Wong, Brown University

*Linking International Assessment to School Improvement in the U.S.: Can International Indicators be Used to Improve Accountability in Urban Schools?*

# New York City

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Thursday, 10:35 a.m. – 12:05 p.m., Room 405 – 406, K2

## **Equity and Comparability In International Large Scale Assessments: Issues Related To Language And Curriculum Differences – Coordinated Session**

### **Organizer**

*Leslie Rutkowski, International Association for the Evaluation of Educational Achievement (IEA) - Data Processing & Research Center (DPC)*

### **Moderator**

*Eugene Gonzalez, IEA-ETS Research Institute*

### **Presenters**

Juliane Barth, IEA-DPC, Leslie Rutkowski, IEA-DPC

*Curriculum Coverage and Scale Correlation on TIMSS 2003*

Kadriye Ercikan, University of British Columbia, Eugene Gonzalez, IEA-ETS Research Institute

*Score Scale Comparability on Multilingual Versions of Tests*

Malena Oliveri, University of British Columbia

*Comparability of French & English Versions of PISA 2003 Problem Solving*

Aletta Grisay, University of Liege, Belgium, Eugene Gonzalez, IEA-ETS

Research Institute, Christian Monseur, University of Liege, Belgium

*Equivalence of Item Difficulties Across National Versions in PIRLS and PISA Reading Assessments*

### **Discussants**

*Ronald Hambleton, University of Massachusetts, Amherst*

*Linda Cook, Educational Testing Service*

# NCME • 2008 Annual Meeting & Training Sessions

Thursday, 10:35 a.m. – 12:05 p.m., Room 401 – 402, K3

## Detecting Differential Item Functioning – Paper Session

### Moderator

*Kathleen Banks, University of Iowa*

### Presenters

Leah Kaira, University of Massachusetts, Amherst, Craig Wells, University of Massachusetts, Amherst

*A Method for Assessing Differential Test Functioning*

Konstantin Augemberg, Fordham University, Deanna Morgan, College Board  
*Differential Performance of Test Items by Geographical Regions*

Karen Samuelsen, University of Georgia

*The Credibility Interval Method for the Detection of DIF within a Bayesian Framework*

Mussie Kebede, University of Leuven, Rianne Janssen, University of Leuven  
*Modeling Item Order Effects within a DIF Framework*

### Discussant

*Jill van den Heuvel, CTB/McGraw-Hill*

# New York City

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Thursday, 10:35 a.m. – 12:05 p.m., Room 403 – 404, K4

## Scaling and Equating Polytomous Items – Paper Session

### Moderator

*Amy Hendrickson, College Board*

### Presenters

Xuan Tan, Educational Testing Service, Gautam Puhan, Educational Testing Service, Kathryn Ricker, Educational Testing Service

*Single Versus Double Scoring Trend Responses in Trend Score Equating with Constructed Response Tests*

Sooyeon Kim, Educational Testing Service, Michael Walker, Educational Testing Service, Frederick McHale, Educational Testing Service

*Comparisons Among Designs for Equating Constructed Response Tests*

Xin Wei, Stanford University, Lei Yu, Educational Testing Service

*An Investigation of Essay Scaling in the Framework of Classical Test Theory*

Kevin Meara, Educational Testing Service, Carolyn Wentzel, Educational Testing Service

*Scoring Constructed-Response Items Using One Rater Versus Two Raters: Assessing the Impact on Equating and Score Reporting*

### Discussant

*Richard Schwarz, CTB/McGraw-Hill*

# NCME • 2008 Annual Meeting & Training Sessions

Thursday, 10:35 a.m. – 12:05 p.m., Room 501 – 502, K5

## Parameter Drift: Issues and Models – Paper Session

### Moderator

Aster Tessema, American Institute of Certified Public Accountants

### Presenters

Mark Raymond, American Registry Radiologic Technologists, Sandra Neustel, American Registry Radiologic Technologists, Dan Anderson, American Registry Radiologic Technologists

*The Benefits of Taking an Identical Version of a Certification Test on Two Occasions*

Chien-Ming Chen, National Academy for Educational Research Preparatory, Yanlin Jiang, Educational Testing Service, Deping Li, Educational Testing Service

*Investigation of the Criteria in Scale Drift Measures*

Terran Brown, Educational Testing Service, Xiaohui Zheng, University of California, Berkeley, Michael Walker, Educational Testing Service, Sooyeon Kim, Educational Testing Service

*Developing an Optimal Equating Plan Incorporating the Trend Scoring Method for Constructed Response Tests in Large-Scale Assessments*

Hongwen Guo, Educational Testing Service, Jinghua Liu, Educational Testing Service, Shelby Haberman, Educational Testing Service, Neil Dorans, Educational Testing Service

*Trend Analysis in Seasonal Time Series Models*

### Discussant

Alan D. Mead, Illinois Institute of Technology

# New York City

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Thursday, 12:25 p.m. – 1:55 p.m., Times Square Ballroom C, L1

## **Item Response Theory: Models and Procedures – Paper Session**

### **Moderator**

*Craig Wells, University of Massachusetts, Amherst*

### **Presenters**

Yu Fang, Michigan State University, Deping Li, Educational Testing Service, Andreas Oranje, Educational Testing Service

*Adaptive Gauss-Hermite Quadrature Integration on the Parameter Estimation of Fixed/Random Effect Latent Regression Models in Large Scale Assessment*

Randall Penfield, University of Miami, Jimmy de la Torre, Rutgers University  
*A New Response Model for Multiple-Choice Items*

Seonghoon Kim, Keimyung University

*An Investigation of a Method for Obtaining the Full Variance-Covariance Matrix for Marginal Maximum Likelihood Item Parameter Estimates*

Christine DeMars, James Madison University

*Scoring Multiple Choice Items: A Comparison of IRT and Classical Polytomous and Dichotomous Methods*

### **Discussant**

*David Andrich, University of Western Australia*

# NCME • 2008 Annual Meeting & Training Sessions

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Thursday, 12:25 p.m. – 1:55 p.m., Room 405 – 406, L2

## **The Educational Measurement Profession In 2007: What Is The State of Our Union? – Coordinated Session**

### **Organizer/Moderator**

*Wayne Camara, College Board*

### **Presenters**

Sheryl Packman, Fordham University

*Educational Measurement Professionals Survey: Methodology & Sample*

Kristen Huff, College Board

*Educational Measurement Professionals Survey: Where We Work & What We Do*

Wayne Camara, College Board

*Educational Measurement Professionals Survey: Show Me the Money*

### **Discussants**

*Anne Fitzpatrick, Educational Testing Service*

*Stephen Sireci, University of Massachusetts, Amherst*

# New York City

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Thursday, 12:25 p.m. – 1:55 p.m., Room 401– 402, L3

## **Testlet Models: Alternative Parameterizations and Uses – Paper Session**

### **Moderator**

*Feifei Ye, University of Pittsburgh*

### **Presenters**

Jin Zhang, University of Iowa, Robert Ankenmann, University of Iowa  
*Dichotomous or Polytomous Model? Equating of Testlet-Based Tests in Light of Conditional Item Pair Correlations*

Hong Jiao, University of Maryland, Shudong Wang, Harcourt Assessment, Inc., Wei He, Michigan State University

*Parameter Estimation of One-Parameter Testlet Model*

Feifei Li, University of Maryland, Amy Hendrickson, College Board

*Comparison of Testlet IRT, Dichotomous IRT And Polytomous IRT Models in Equating of Scores from Testlet-Based Tests*

Lihua Yao, CTB/McGraw-Hill, Changhua Rich, CTB//McGraw-Hill

*Application of Testlet-Effect Model to Scaling Performance Assessments of Mixed Item Types with Common Stimulus, and Multiple-Criteria Scoring Rubrics*

### **Discussant**

*Lihshing Wang, University of Cincinnati*

# NCME • 2008 Annual Meeting & Training Sessions

Thursday, 12:25 p.m. – 1:55 p.m., Room 403 – 404, L4

## Topics in Vertical Scaling – Paper Session

### Moderator

*Yoonsun Lee, Washington State Department of Education*

### Presenters

Jungnam Kim, CTB/McGraw-Hill, Won-Chan Lee, University of Iowa, Dong-In Kim, CTB/McGraw-Hill

*The Effect of Choosing a Base Grade on the Vertical Scale Using Various IRT Calibration Methods*

Thomas Proctor, University of Iowa, Stephen Dunbar, University of Iowa

*Does the Data Collection Design in Vertical Scaling Matter: A Comparison of Items Utilized for a Scaling Test and Common-Item Design*

Ye Tong, Pearson, Michael Kolen, University of Iowa

*Maintenance of Vertical Scales*

Huijuan Meng, Pearson, Walter Vispoel, University of Iowa, Won-Chan Lee, University of Iowa

*The Effects of Prior Distributions on IRT Vertical Scaling of Mixed-Format Test Data*

Richard Sudweeks, Brigham Young University, Maria Assunta Forgione, Brigham Young University, Robert Bullough, Brigham Young University, Damon Bahr, Brigham Young University, Eula Monroe, Brigham Young University, Scott Thayn, Brigham Young University

*Constructing Vertically Scaled Mathematics Tests for Tracking Student Growth in Value-Added Studies of Teacher Effectiveness*

### Discussant

*Dianne Montero, Educational Testing Service*

# New York City

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Thursday, 12:25 p.m. – 1:55 p.m., Room 501 – 502, L5

## **Modifications and Applications of Standard-Setting Procedures – Paper Session**

### **Moderator**

*Gregory Cizek, University of North Carolina, Chapel Hill*

### **Presenters**

Rianne Janssen, University of Leuven, Ernesto San Martin, Pontificia Universidad Catolica De Chile

*Standard Setting for the Rasch Poisson Count Model*

Hueying Tzou, National University of Tainan, Yifang Wu, National University of Tainan, Chuan-Ju Lin, National University of Tainan

*Validating the Performance Standards in 2006 TASA-MAT Standard Setting*

Scott Elliot, SEG Assessment

*A Modified Item Mapping Procedure for Establishing Formative Assessment Benchmark Standards*

Marianne Perie, Center for Assessment

*Writing Performance Level Descriptors: Applying Lessons Learned from the General Assessment to the 1% and 2% Assessments*

### **Discussant**

*Susan Loomis, National Assessment Governing Board*

# NCME • 2008 Annual Meeting & Training Sessions

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Thursday, 2:15 p.m. – 3:45 p.m., Times Square Ballroom C, M1

## Dimensionality: Assumptions, Error, and Effect Sizes – Paper Session

### Moderator

Ratna Nandakumar, University of Delaware

### Presenters

Meng Wu, University of South Carolina, Brian Habing, University of South Carolina

*Comparison of Parametric and Nonparametric IRT Bootstrap Methods for Dimensionality Assessment*

Ida Marais, University of Western Australia, David Andrich, University of Western Australia

*Formalizing the Distinction Between Dimension and Response Violations of Local Independence in the Unidimensional Rasch Model*

EunYoung Lim, University of Illinois, Urbana-Champaign, Louis Roussos, Measured Progress

*Bootstrap-Based Standard Error for DETECT*

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

*Correlation Based Measure of Effect Size for Multidimensional IRT Data*

Jessalyn Smith, University of South Carolina, Christine Distefano, University of South Carolina

*Comparing the Accuracy of Parameter Estimates Between Confirmatory Factor Analysis and Multidimensional Item Response Theory Models*

### Discussant

Lihua Yao, CTB/McGraw-Hill

# New York City

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Thursday, 2:15 p.m. – 3:45 p.m., Room 405 – 406, M2

## **Advances in the Application of Optimization Methods to the Design of Computer-Based Assessments – Coordinated Session**

### **Organizer**

*Isaac I. Bejar, Educational Testing Service*

### **Moderator**

*Krista Breithaupt, American Institute of Certified Public Accountants*

### **Presenters**

Krista Breithaupt, American Institute of Certified Public Accountants, Donovan Hare, University of British Columbia

*Automated Assembly Techniques for Rapidly Changing Test Designs*

Tim Davey, Educational Testing Service, Michael Jodoin, Educational Testing Service, Manfred Steffen, Educational Testing Service, Bernard Veldkamp, University of Twente

*A Flexible Framework for Defining and Solving Test Assembly Problems*

Wim van der Linden, University of Twente

*Using Optimal Design Principles to Control Test Speededness*

Isaac I. Bejar, Educational Testing Service, Aurora Graf, Educational Testing Service, Bernard Veldkamp, University of Twente, Andreas Oranje, Educational Testing Service

*Applications of Optimization Methods to Assessment Design*

### **Discussant**

*Richard Luecht, University of North Carolina, Greensboro*

Thursday, 2:15 p.m. – 3:45 p.m., Room 401– 402, M3

## Multidimensionality in Vertical Scaling – Paper Session

### Moderator

*Cindy Walker, University of Wisconsin, Milwaukee*

### Presenters

Tammiee Dickenson, University of South Carolina, Brian Habing, University of South Carolina, Anita Rawls, University of South Carolina, Robert Johnson, University of South Carolina

*Vertical Equating and Dimensionality of a Primary Reading Assessment*

Zachary Smith, University of Massachusetts, Amherst, Matthew Finkelman, Measured Progress, Michael Nering, Measured Progress, Wonsuk Kim, Measured Progress

*Vertical Scaling: A Comparison of Equating Methods with Unidimensional and Multidimensional Data*

Shudong Wang, Harcourt Assessment, Inc., Hong Jiao, University of Maryland  
*Empirical Evidences of Construct Equivalence of Vertical Scale Across Grades in K-12 Large-Scale Standardized Reading Assessments*

Samantha Burg, Metametrics, Inc.

*An Investigation of Dimensionality across Grade Levels for Grades 3-8 Mathematics Achievement Tests*

### Discussant

*William Skorupski, University of Kansas*

# New York City

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Thursday, 2:15 p.m. – 3:45 p.m., Room 403 – 404, M4

## **Evaluating the Psychometric Characteristics of Testlets – Paper Session**

### **Moderator**

*Gene Hoffman, HumRRO*

### **Presenters**

Hye-Jeong Choi, University of Georgia, Allan Cohen, University of Georgia  
*A Bayesian Approach to Estimation of Person-Fit in the Testlet Model*

Ching-Lin Shih, National Chung Cheng University, Wen-Chung Wang, National Chung Cheng University

*A Comparison of Item Selection Strategies in Computerized Adaptive Testing for Testlet-Based Items*

Yanmei Li, Educational Testing Service, Shuhong Li, Educational Testing Service, Lin Wang, Educational Testing Service

*Application of a General Polytomous Testlet Model to a Large-Scale English Language Assessment*

Guemin Lee, Yonsei University, In-Yong Park, Yonsei University

*A Comparison of the Approaches of Classical Test Theory, Generalizability Theory, and Item Response Theory in Estimating the Reliability of Test Scores Composed of Testlets*

### **Discussant**

*Barbara Dodd, University of Texas, Austin*

# NCME • 2008 Annual Meeting & Training Sessions

Thursday, 2:15 p.m. – 3:45 p.m., Room 501 – 502, M5

## Large-Scale Assessment and Educational Policy – Paper Session

### Moderator

*Thanos Patelis, College Board*

### Presenters

Stanley Rabinowitz, WestEd

*The Evolution of Large-Scale Assessments: Boom or Bust?*

Paul Nichols, Pearson, Natasha Williams, Pearson

*Evidence of Test Score Use in Validity: Roles and Responsibility*

Emily Lai, University of Iowa, Kris Waltman, University of Iowa

*The Impact of NCLB on Instruction: A Comparison of Results from 2004-05 to 2006-07*

Jiahe Qian, Educational Testing Service, Sailesh Vezzu, Educational Testing Service, Xiaoke Bi, Educational Testing Service

*One Approach to Detect the Invariance of Proficiency Standards of State Tests*

### Discussant

*David Abrams, New York State Education Department*

# New York City

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Thursday, 4:05 p.m. – 6:05 p.m., Times Square Ballroom C, N1

## **The Meaning and Use of Subscores – Paper Session**

### **Moderator**

*Gary Schaeffer, CTB/McGraw-Hill*

### **Presenters**

Clement Stone, University of Pittsburgh, Yun Tang, University of Pittsburgh, Sean Tierney, University of Pittsburgh

*Providing Subscale Scores for Diagnostic Information: An Evaluation of a Regression-Based Method for Augmenting Subscore Reliability*

Heather Mann, University of Maryland, Brad Moulder, Educational Testing Service

*Minimizing Bias in Diagnostic Feedback*

Tawnya Knupp, University of Iowa, Timothy Ansley, University of Iowa  
*Online, State-Specific Assessment Score Reports and Interpretive Guides*

Gautam Puhan, Educational Testing Service, Sandip Sinharay, Educational Testing Service, Shelby Haberman, Educational Testing Service, Kevin Larkin, Educational Testing Service

*Comparison of Subscores Based on Classical Test Theory*

### **Discussant**

*Catherine Taylor, University of Washington*

# NCME • 2008 Annual Meeting & Training Sessions

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Thursday, 4:05 p.m. – 6:05 p.m., Room 405 – 406, N2

## **Human Grading of Constructed-Response Items – Coordinated Session**

### **Organizer**

*Neal Kingston, University of Kansas*

### **Moderator**

*William Skorupski, University of Kansas*

### **Presenters**

Catherine McClellan, Educational Testing Service, Colin Watson, National Assessment Agency

*Relating Constructed-Response Item Performance Data to Analysis Results*

Neal Kingston, University of Kansas, Stuart Kahl, Measured Progress  
*The Relationship between Scorer Background Qualifications and Scoring Accuracy*

Walter D. Way, Pearson, Paul Nichols, Pearson, Daisy Vickers, Pearson  
*Influences of Training and Scorer Characteristics on Human Constructed Response Scoring*

Richard Schwarz, CTB/McGraw-Hill  
*Using Time as a Characteristic of Constructed-Response Items and as a Property of Raters*

### **Discussant**

*Howard Wainer, National Board of Medical Examiners*

# New York City

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Thursday, 4:05 p.m. – 6:05 p.m., Room 401 – 402, N3

## Issues in IRT Parameter Estimation – Paper Session

### Moderator

*Werner Wothke, American Institutes for Research*

### Presenters

Peter Baldwin, National Board of Medical Examiners, Su Baldwin, National Board of Medical Examiners, Polina Harik, National Board of Medical Examiners, Brian Clauser, National Board of Medical Examiners  
*Partitioning Continuous Item Score Scales When Modeling with IRT*

Ann Huiqin Hu, Data Recognition Corporation, Xiangdong Yang, Indiana University, Scott Bishop, Data Recognition Corporation  
*Item Parameter Recovery for the Low-Discrimination Items*

Dipendra Subedi, Michigan State University, Mark Reckase, Michigan State University  
*Investigating Unobserved Heterogeneity in Item Response Theory Mixture Models*

Deping Li, Educational Testing Service, Andreas Oranje, Educational Testing Service, Yanlin Jiang, Educational Testing Service  
*Parameter Recovery and Subpopulation Proficiency Estimation in Hierarchical Latent Regression Models*

Yuming Liu, Educational Testing Service, William Insko, Jr., Riverside Publishing, *The Effects of Missing Values on IRT Parameter Estimation*

### Discussant

*Seock-Ho Kim, University of Georgia*

# NCME • 2008 Annual Meeting & Training Sessions

Thursday, 4:05 p.m. – 6:05 p.m., Room 403 – 404, N4

## Issues in Equating – Paper Session

### Moderator

*Jennifer Dunn, Measured Progress*

### Presenters

Youngwoo Cho, ACT, Inc., Won-Chan Lee, University of Iowa

*Effects of Collapsing Categories on IRT Scale Transformation Methods under the Generalized Partial Credit Model*

Kyong Hee Chon, University of Iowa, Youngwoo Cho, ACT, Inc., Won-Chan Lee, University of Iowa

*The Effect of Collapsing Categories on Polytomous IRT Equating*

Kelly Godfrey, College Board

*Observed vs. IRT: A Comparison of Equating Methods in the Neat Design*

Xuan Wang, University of Iowa, Deborah Harris, ACT, Inc.

*Comparisons of IRT True Score and IRT Observed Score Equating Methods by Using Unidimensional Item Response Model with Multivariate Test Data*

Jorge Carvajal, University of Kansas, Michael Walker, Educational Testing Service, Hyeon-Joo Oh, Educational Testing Service

*A Comparison of Angoff's and Holland's Assumptions in the Levine Observed Score Equating Method*

### Discussant

*Gerald Melican, College Board*

# New York City

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Thursday, 4:05 p.m. – 6:05 p.m., Room 501 – 502, N5

## Differential Weighting of Item Scores and Subscores – Paper Session

### Moderator

*James Roberts, Georgia Institute of Technology*

### Presenters

Amy Hendrickson, College Board, Gerald Melican, College Board, Brian Patterson, College Board

*The Effect of Using Different Weights for Multiple-Choice and Free-Response Item Sections*

Nilufer Kahraman, National Board of Medical Examiners, Brian Clauser, National Board of Medical Examiners, Melissa Margolis, National Board of Medical Examiners

*An Examination of the Impact of Subtask Weighting on Components of a High-Stakes Performance Assessment*

Shun-Wen Chang, National Taiwan Normal University

*Choice of Weighting Scheme in Forming the Composite*

James Carlson, Educational Testing Service, JoEllen Carlson, University of South Florida

*Geometric Explanations of What Differential Weighting of Subsets of Items Does and Does Not Accomplish*

### Discussant

*Aaron Douglas, Mathematica Policy Research, Inc.*

## NCME • 2008 Annual Meeting & Training Sessions

Thursday, 4:00 p.m. – 7:00 p.m., Room 1507

### **NCME Board of Directors Meeting**

Members of NCME are invited to attend as observers.

# New York City

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