

Contents

New Results on an Improved Parallel EM Algorithm for Estimating Generalized Latent Variable Models	1
Matthias von Davier	
Properties of Second-Order Exponential Models as Multidimensional Response Models	9
Carolyn J. Anderson and Hsiu-Ting Yu	
Pseudo-Likelihood Estimation of Multidimensional Response Models: Polytomous and Dichotomous Items	21
Youngshil Paek and Carolyn J. Anderson	
Fitting Graded Response Models to Data with Non-Normal Latent Traits	31
Tzu-Chun Kuo and Yanyan Sheng	
An Extension of Rudner-Based Consistency and Accuracy Indices for Multidimensional Item Response Theory	43
Wenyi Wang, Lihong Song, and Shuliang Ding	
Supporting Diagnostic Inferences Using Significance Tests for Subtest Scores	59
William Loricé	
A Comparison of Two MCMC Algorithms for the 2PL IRT Model	71
Meng-I Chang and Yanyan Sheng	
Similar DIFs: Differential Item Functioning and Factorial Invariance for Scales with Seven (“Plus or Minus Two”) Response Alternatives	81
David Thissen	

Finally! A Valid Test of Configural Invariance Using Permutation in Multigroup CFA	93
Terrence D. Jorgensen, Benjamin A. Kite, Po-Yi Chen, and Stephen D. Short	
Outcries of Dual Scaling: The Key Is Duality	105
Shizuhiko Nishisato	
The Most Predictable Criterion with Fallible Data	117
Seock-Ho Kim	
Asymmetric Multidimensional Scaling of Subjective Similarities Among Occupational Categories	129
Akinori Okada and Takuya Hayashi	
On the Relationship Between Squared Canonical Correlation and Matrix Norm	141
Kentaro Hayashi, Ke-Hai Yuan, and Lu Liang	
Breaking Through the Sum Scoring Barrier	151
James O. Ramsay and Marie Wiberg	
Overestimation of Reliability by Guttman's λ_4, λ_5, and λ_6 and the Greatest Lower Bound	159
Pieter R. Oosterwijk, L. Andries van der Ark, and Klaas Sijtsma	
The Performance of Five Reliability Estimates in Multidimensional Test Situations	173
Shuying Sha and Terry Ackerman	
Weighted Guttman Errors: Handling Ties and Two-Level Data	183
Letty Koopman, Bonne J. H. Zijlstra, and L. Andries van der Ark	
Measuring Cognitive Processing Capabilities in Solving Mathematical Problems	191
Susan Embretson	
Parameter Constraints of the Logit Form of the Reduced RUM	207
Hans-Friedrich Köhn	
Hypothesis Testing for Item Consistency Index in Cognitive Diagnosis ...	215
Lihong Song and Wenyi Wang	
Irreplaceability of a Reachability Matrix	229
Shuliang Ding, Wenyi Wang, Fen Luo, Jianhua Xiong, and Yaru Meng	
Ensuring Test Quality over Time by Monitoring the Equating Transformations	239
Marie Wiberg	
An Illustration of the Epanechnikov and Adaptive Continuization Methods in Kernel Equating	253
Jorge González and Alina A. von Davier	

(The Potential for) Accumulated Linking Error in Trend Measurement in Large-Scale Assessments 263
 Lauren Harrell

IRT Observed-Score Equating with the Nonequivalent Groups with Covariates Design 275
 Valentina Sansivieri and Marie Wiberg

Causal Inference with Observational Multilevel Data: Investigating Selection and Outcome Heterogeneity 287
 Jee-Seon Kim, Wen-Chiang Lim, and Peter M. Steiner

Nonequivalent Groups with Covariates Design Using Propensity Scores for Kernel Equating 309
 Gabriel Wallin and Marie Wiberg

A Mixture Partial Credit Model Analysis Using Language-Based Covariates 321
 Seohyun Kim, Minh Kwak, and Allan S. Cohen

Investigating Constraint-Weighted Item Selection Procedures in Unfolding CAT 335
 Ya-Hui Su

Rating Scale Format and Item Sensitivity to Response Style in Large-Scale Assessments 347
 Sien Deng and Daniel M. Bolt

Mode Comparability Studies for a High-Stakes Testing Program..... 357
 Dongmei Li, Qing Yi, and Deborah J. Harris

Power Analysis for *t*-Test with Non-normal Data and Unequal Variances 373
 Han Du, Zhiyong Zhang, and Ke-Hai Yuan

Statistical Power Analysis for Comparing Means with Binary or Count Data Based on Analogous ANOVA..... 381
 Yujiao Mai and Zhiyong Zhang

Robust Bayesian Estimation in Causal Two-Stage Least Squares Modeling with Instrumental Variables 395
 Dingjing Shi and Xin Tong

Measuring Grit Among First-Generation College Students: A Psychometric Analysis 407
 Brooke Midkiff, Michelle Langer, Cynthia Demetriou, and A. T. Panter

A Comparison of Item Parameter and Standard Error Recovery Across Different R Packages for Popular Unidimensional IRT Models ... 421
 Taeyoung Kim and Insu Paek



<http://www.springer.com/978-3-319-56293-3>

Quantitative Psychology

The 81st Annual Meeting of the Psychometric Society,
Asheville, North Carolina, 2016

van der Ark, L.A.; Wiberg, M.; Culpepper, S.A.; Douglas,
J.A.; Wang, W.C. (Eds.)

2017, IX, 430 p. 49 illus., 24 illus. in color., Hardcover

ISBN: 978-3-319-56293-3