Examining Bias in a Testing with Multilevel and Cross-Classified Item Response Modeling

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Friday, February 26, 2016

University of Nebraska-Lincoln, TEAC Room 112
University of Alberta, Education Centre North Room 6-1110
University of Iowa, Lindquist Center Room N221
University of Maryland, Benjamin Building Room 3233
University of Minnesota, Peik Hall Room 28

2:30 – 4 p.m. (CST)

The presence of differential item functioning (DIF) for student groups of equivalent ability indicates potential item bias that can threaten the validity of test score inferences. Traditional approaches to identifying item bias involve the estimation of item parameters first, and DIF effects second, with focus groups and expert review then used to determine whether or not DIF constitutes bias. Multilevel and cross-classified item response models offer a parsimonious solution to this complex task, as they can be used both to detect and understand possible sources of differential performance. This presentation outlines these models and examines their application to data from large-scale assessment programs.

If you have questions about this seminar, contact Professor Mark Davison, mld@umn.edu.

To be notified about future seminars, contact sawye100@umn.edu.

The CanAm Online Symposium, formerly known as the Big Ten Online Symposium, is a series of presentations on advanced measurement and research methods in education. It is sponsored by the Centre for Research in Applied Measurement and Evaluation, Department of Educational Psychology, University of Alberta; the Quantitative Foundations of Education Program, Department of Educational Psychology, University of Iowa; the Quantitative Methods in Education Track, Department of Educational Psychology, University of Minnesota; the Measurement, Statistics, and Evaluation Program, Department of Human Development and Quantitative Methods, University of Maryland; and the Quantitative, Qualitative, and Psychometric Methods Program, Department of Educational Psychology, University of Nebraska-Lincoln. In 2015-16, the Symposium will include four online seminars.