

Item Response Theory: Principles and Applications Workshop

July 28-August 1, 2008
Amherst, Massachusetts

Instructors

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Vitas of instructors can be found at www.umass.edu/remf.

Objectives

The goal of this four and a half day workshop is to provide participants with the fundamental principles of item response theory, and applications of that theory and related models, to educational and psychological test data. Topics covered during the instructional program include:

- Strengths and Shortcomings of Classical Test Models and Procedures
- Dichotomous and Polytomous Unidimensional Item Response Models, Assumptions, and Features
- IRT Model Parameter Estimation
- Assessment of Model Fit and Analysis of Consequences of Misfit
- Using IRT Models for Test Development (Including Automated Test Assembly) and the Identification of Differentially Functioning Test Items
- IRT Test Equating: Designs, Methods, Analyses
- Challenges in Applying IRT Models, Special Topics

Participants will also have the opportunity each day to analyze several data sets with the popular IRT software from Scientific Software International, Inc. (SSI)—e.g., BILOG, PARSCALE, and MULTILOG. Free UMass-developed easy-to-use software will be provided for (1) generating a wide-range of unidimensional and multidimensional data, (2) assessing model fit, and (3) equating scores with several IRT methods.

Intended Audience

Employees of licensure and credentialing organizations, as well as those in the allied health fields, employees of state departments of education, persons working with testing companies, university professors, graduate students, and others interested in applying item response theory at a practical level. Some familiarity with educational statistics and educational measurement will be assumed.

Materials

Participants are encouraged to bring a laptop computer for analyzing data. 15 day try-out editions of the SSI IRT software will be made available for free download. In addition, UMass IRT software will be provided free to participants. Several data sets will be available too, and participants are encouraged to bring their own datasets for analysis and consultation.

Additional Information

Additional information, including the contents of the five day program, details about the location of the workshop in Amherst, Massachusetts, price, and travel and housing accommodations will be forthcoming.

Contact Information

For further information, contact Professor Lisa Keller, Workshop Co-Ordinator, at lkeller@educ.umass.edu, or contact other staff members too if you have specific questions for them.