

AN INTRODUCTION TO RASCH MEASUREMENT: THEORY AND APPLICATIONS

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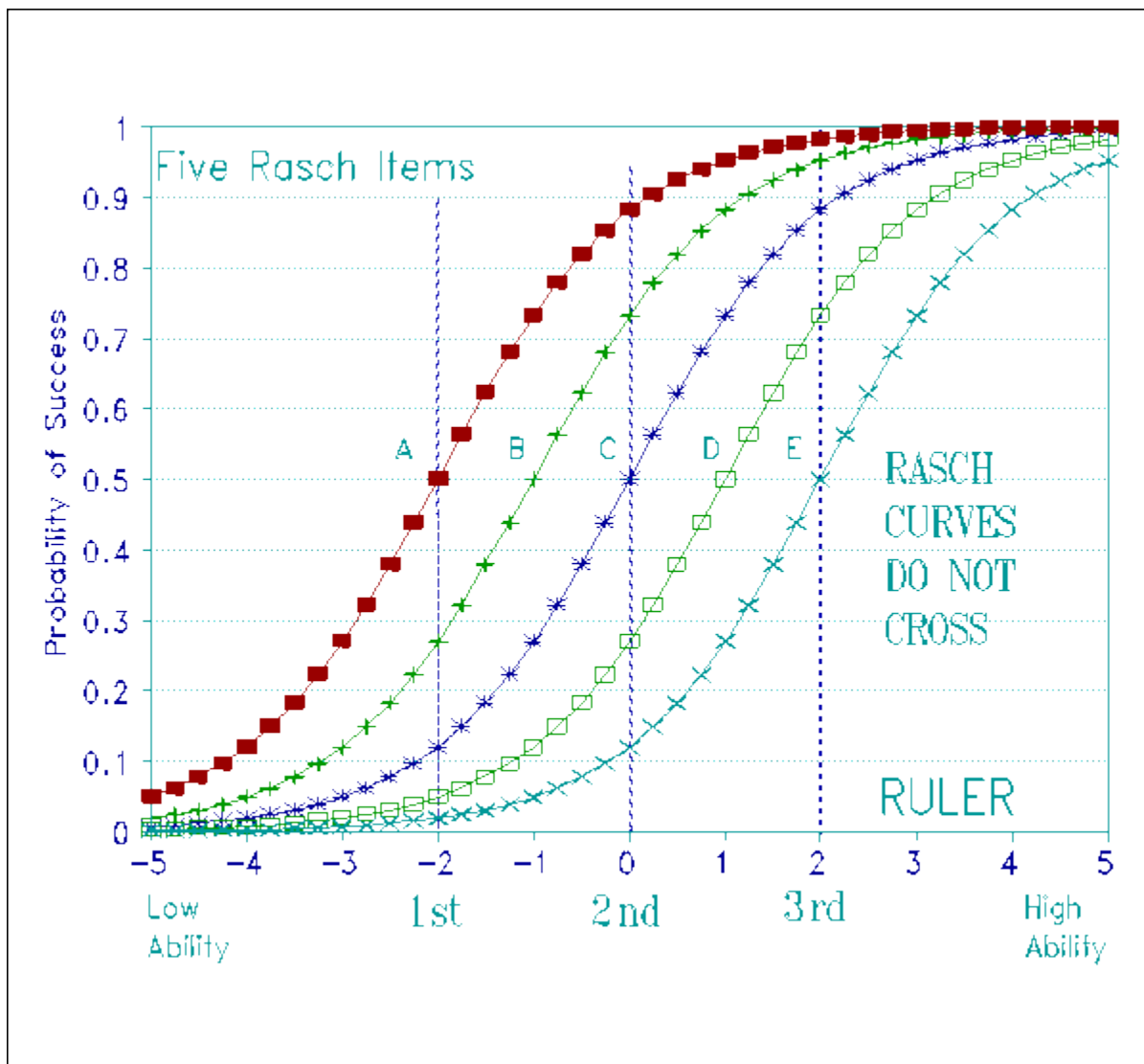
WORKSHOP DESCRIPTION:

The purpose of this workshop is to introduce participants to the theory and applications of Rasch measurement. This workshop will provide participants with the necessary tools to become effective consumers of research employing Rasch measurement and the skills necessary to solve practical measurement problems using the family of Rasch measurement models. Instructional material will be based on examples from four Rasch measurement models: dichotomous, rating scale, partial credit, and many-facet data. Participants will have the opportunity to use current Rasch software.

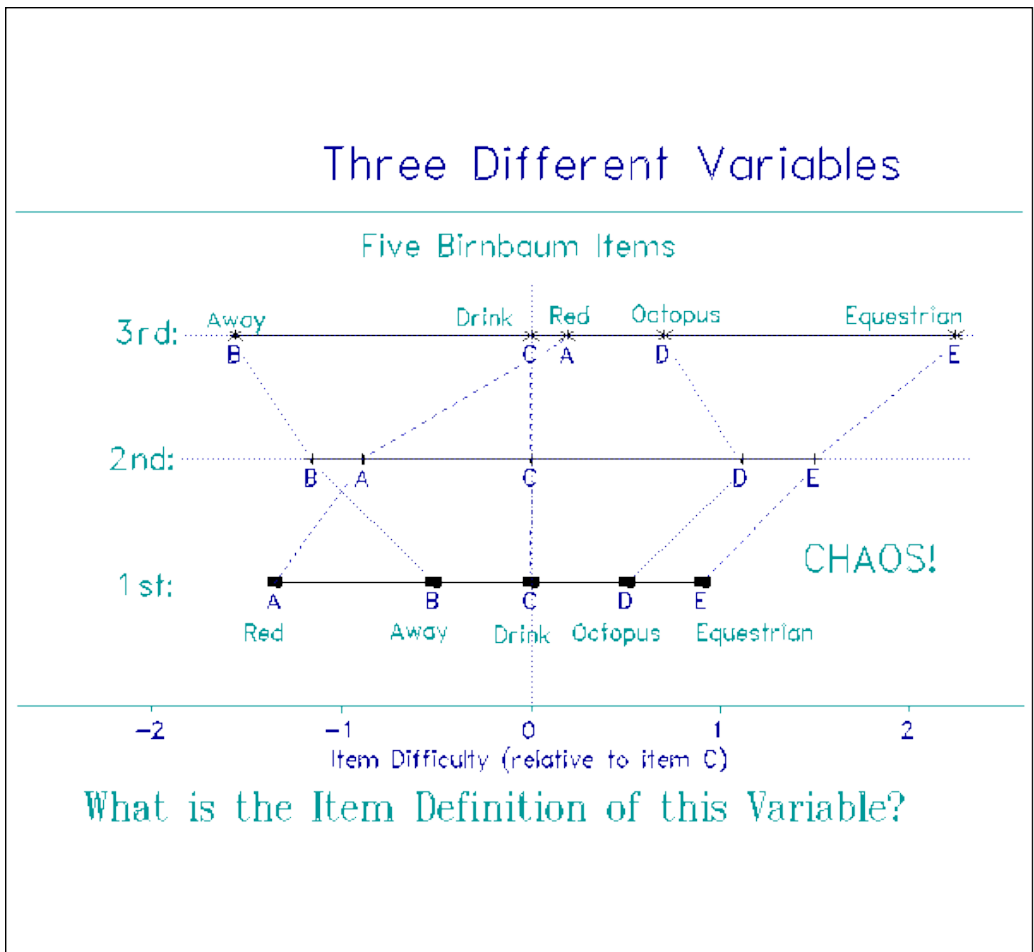
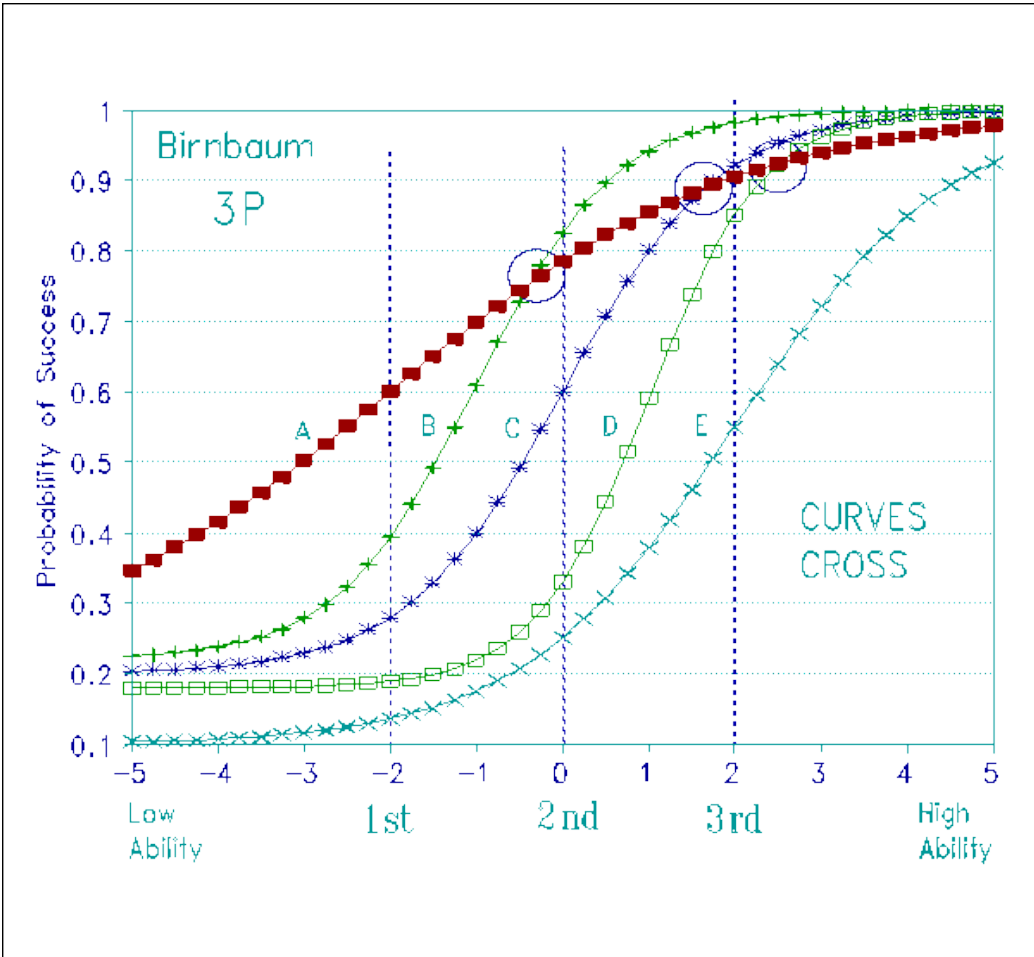
The format will consist of eight self-contained units. The units are: Introduction to Rasch Measurement; Item and Person Fit Analysis I and II; Applications of Rasch Measurement I and II; Examples of Rasch Analyses; and Interpreting WINSTEPS Output. The contents of the workshop have been updated to include many new topics such as: Item and Person Analysis with the Rasch Model (IPARM), the Residual Analysis Tool (RAT), Decision Consistency, and the Linear Logistic Test Model. All of these topics have a direct relationship to building quality large-scale assessment systems. The material covered in these units are an overview of material that would normally be covered in minimum two or three graduate level measurement courses. The director will divide the topics in each session to maximize individual strengths.

Audience:

Anyone interested in learning about the practical aspects of Rasch measurement. Previous training in measurement is highly recommended, but not necessary. A though knowledge of the psychometric nomenclature is important.



Figures from *Fundamental Measurement for Psychology* by Benjamin D. Wright (1997).



AGENDA

Monday, October 22, 2018

(09:00-12:00)

Session I – Introduction to Rasch Measurement

Welcome

What is Measurement

Rasch Measurement Models

True-score vs. Rasch Measurement Models

Multi-parameter IRT Models vs. Rasch Measurement Models

Session II – Item and Person Fit Analysis, Part 1

Testing the Fit of Data to the Model

Dimensionality and PC Analysis of Residuals

Lunch

(13:30-16:30)

Session III – Dichotomous and Polytomous Data

Example of Dichotomous Data Analysis

Example of Polytomous Data Analysis

Session IV – Item and Person Fit Analysis, Part 2

IPARM – Item and Person Analysis with the Rasch Model

The RAT – The Residual Analysis Tool

Tuesday, October 23, 2018

(09:00-12:00)

Session V – Applications of Rasch Measurement, Part 1

Score Reporting

Residual Analysis

Decision Consistency

Linear Logistic Test Model

Session VI – Applications of Rasch Measurement, Part 2

Item Bias

Test Equating and Item Banking

Computer Adaptive Testing

Best Practices for Polytomous Data Analysis

Lunch

(13:30-16:30)

Session VII – Examples of Rasch Analyses

Facets Program – Control files and example

Running Winsteps – Control files and example

Session VIII – Analysis of Participants Data

Your turn to analyze data

Evaluation / End of Workshop