

An Introduction to Rasch Measurement: Theory and Applications
October 7-8, 2011 at the Hilton Garden Inn,
Maple Grove, MN

WORKSHOP DESCRIPTION

The purpose of this training session is to introduce participants to the theory and applications of Rasch measurement. This session 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. Instructional material will be based on 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 Calibration; Dichotomous and Polytomous Data; Performance and Judged Data; Applications of Rasch Measurement I and II; Examples of Rasch Analyses; and Analysis of Participants Data. The material covered in these units are an overview of material that would normally be covered in approximately two to three graduate level measurement courses. The co-directors will divide the topics in each session to maximize individual strengths.

Registration includes the full 2-day workshop, a continental breakfast each morning, lunch each afternoon, over 550 pages of handouts and tutorial material, a copy of *Introduction to Rasch Measurement* (698 pages), *Rasch Measurement: Advanced and Specialized Applications* (470 pages), *Criterion-Reference Testing: Practice Analysis to Score Reporting using Rasch Measurement Models* (560 pages), and a one-year subscription to the *Journal of Applied Measurement*. See www.jampress.org for more details on these publications.

Audience: Anyone interested in learning about the practical aspects of Rasch measurement. Previous training in measurement is recommended, but not necessary.

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AGENDA

Friday, October 7, 2011

8:00 am **Registration and Coffee/Juice/Danishes/Muffins/Bagels**

Session I – Introduction to Rasch Measurement

8:30 **Welcome**

Richard M. Smith, PhD

8:35 **What is Measurement**

Richard M. Smith, PhD

9:00 **Rasch Measurement Models**

Everett V. Smith, Jr., PhD

9:30 **True Score vs. Rasch Measurement Models**

Everett V. Smith, Jr., PhD

10:00 **Q&A**

10:15 **Break**

Session II – Item and Person Calibration

10:30 **Testing the Fit of Data**

Richard M. Smith, PhD

11:00 **Dimensionality and PC Analysis of Residuals**

Everett V. Smith, Jr., PhD

11:30 **Q&A**

11:45 **Lunch - hotel restaurant**

Session III – Dichotomous and Polytomous Data

- 1:00 **Example of dichotomous data analysis**
Richard M. Smith, PhD
- 1:30 **Example of polytomous data analysis**
Everett V. Smith, Jr., PhD
- 2:15 **Example of multidimensional data analysis**
Everett V. Smith, Jr., PhD
- 3:00 **Q&A**
- 3:15 **Break**

Session IV – Performance and Judged Data

- 3:30 **FACETS Control Language & example of facets analysis with nested data (ratings of conference proposals)**
Richard M. Smith, PhD
- 4:15 **Example of facets analysis and G-Theory (ratings of student performance)**
Everett V. Smith, Jr., PhD
- 5:00 **Q&A**
- 5:15 **End of Day One**

Saturday, October 8, 2011

8:00 am **Coffee/Juice/Danishes/Muffins/Bagels**

Session V – Applications of Rasch Measurement

8:30 **Score Reporting**
Everett V. Smith, Jr., PhD

9:00 **Rasch and latent class analysis**
Everett V. Smith, Jr., PhD

9:30 **Item Bias**
Richard M. Smith, PhD

10:00 **Q&A**

10:15 **Break**

Session VI – Applications of Rasch Measurement

10:30 **Test Equating and Item Banking**
Richard M. Smith, PhD

11:00 **Computer Adaptive Testing**
Richard M. Smith, PhD

11:30 **Rasch vs. Multi-Parameter IRT Models**
Everett V. Smith, Jr., PhD

12:00 **Q&A**

12:15 **Lunch - hotel restaurant**

Session VII – Examples of Rasch Analyses

- 1:30 **Rating Scale Data**
 Everett V. Smith, Jr., PhD
- 2:00 **Partial Credit Data**
 Richard M. Smith, PhD
- 2:30 **Q&A**
- 2:45 **Break**

Session VIII – Analysis of Participants Data

- 3:00 **Running WINSTEPS**
 Everett V. Smith, Jr., PhD
 Richard M. Smith, PhD
- 3:45 **Q&A**
- 4:00 **Your turn to analyze data**
- Participants interested in analyzing their own data should bring a laptop with Windows 95 (or newer), 8 MB RAM (min), and Wordpad or Notepad.**
- 5:00 **End of Workshop**

Once your registration material is received, an e-mail confirmation will be sent.

Please note: If an insufficient number of participants register this session may be canceled. Your registration funds will be reimbursed minus the cost of *Introduction to Rasch Measurement* (\$51), *Rasch Measurement: Advanced and Specialized Applications* (\$55), and *Criterion-Reference Testing: Practice Analysis to Score Reporting using Rasch Measurement Models* (\$61). You will be notified by the registration deadline (October 1, 2011) if this session will be canceled.

Introduction to Rasch Measurement, *Rasch Measurement: Advanced and Specialized Applications*, and *Criterion-Reference Testing: Practice Analysis to Score Reporting using Rasch Measurement Models* will be mailed immediately after payment is received. The subscription to the *Journal of Applied Measurement* will commence after the workshop. Cancellations more than 2 weeks prior to the workshop will receive a full refund minus the cost of *Introduction to Rasch Measurement* (\$51), *Rasch Measurement: Advanced and Specialized Applications* (\$55), and *Criterion-Reference Testing: Practice Analysis to Score Reporting using Rasch Measurement Models* (\$61). Cancellations within 2 weeks of the workshop will receive a refund minus the cost of *Introduction to Rasch Measurement* (\$51), *Rasch Measurement: Advanced and Specialized Applications* (\$55), *Criterion-Reference Testing: Practice Analysis to Score Reporting using Rasch Measurement Models* (\$61), and the associated costs to cover the ordered food and refreshments.

For accommodations, here are the phone numbers and web links for two hotels. The first (Hilton Garden Inn) is the site of the workshop. Please ask for the Rasch Measurement Workshop room block for the reduced rate (\$129 per night). The second is about three blocks away, across the interstate. Both hotels are accessible from the MSP airport through the airport shuttle service (Super Shuttle). You can make shuttle reservations on line.

[Hilton Garden Inn](#)

6350 Vinewood Lane North
Maple Grove, MN 55311
(763) 509-9500

[Extended Stay America](#)

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IMPORTANT: Please add our email addresses (rsmith@jampress.org and evsmith@uic.edu) to your email lists as soon as possible so our emails to you are not directed to SPAM boxes.