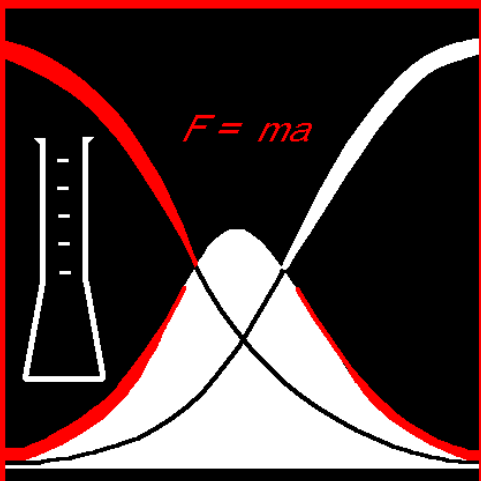


Applications of Rasch Measurement
In Science Education

Xiufeng Liu and William J. Boone
Editors



Applications of Rasch Measurement in Science Education

Edited by
Xiufeng Liu

State University of New York, Buffalo
and

William J. Boone
Miami University (Ohio)

JAM Press is pleased to announce the new book, *Applications of Rasch Measurement in Science Education*, is available. The book is available in soft cover (\$51, ISBN 1-934116-01-7) and hard cover (\$63, ISBN 1-934116-00-9). Postage and handling are additional. Information on ordering the book (347 Pages) can be found on the reverse of this announcement. Information is also available at the *Journal of Applied Measurement* web site (www.jampress.org). Please go to the JAM Press Books page on the website and scroll down to the new books section.

This edited book includes a collection of exemplary applications of Rasch models in science education. Written by leading researchers around the world on Rasch applications in science education, the chapters address important research questions related to assessing student conceptual understanding, informal science learning, learning environment, affective learning, and teacher knowledge. Anyone who is interested in improving science education measurement will find the book to be useful.

The titles and authors of the twelve chapters are as follows:

- ◆ Forward, *David F. Treagust*
- ◆ Introduction to Rasch Measurement in Science Education, *Xiufeng Liu and William J. Boone*
- ◆ Constructing a Quality Assessment through Rasch Techniques: The Process of Measurement, Feedback, Reflection and Change, *Kelly D. Bradley and Shannon O. Sampson*
- ◆ The Geoscience Concept Inventory: Application of Rasch Analysis to Concept Inventory Development in Higher Education, *Julie C. Libarkin and Steven W. Anderson*
- ◆ Tracking Cognitive Development with the Rasch Model: Empirical Evidence of Growth and Heterogeneity, *Lorna C. Endler and Trevor G. Bond*
- ◆ Stage-like Patterns in the Development of Conceptions of Energy, *Theo L. Dawson*
- ◆ Exploring Conceptual Understandings of Diffusion and Osmosis by Senior High School and Undergraduate University Science Students, *Debra Panizzon and Trevor Bond*
- ◆ Mapping out Students' Matter Concept Development from Elementary to High School, *Xiufeng Liu*
- ◆ Using Structured Item Response Theory Models to Analyze Content and Inquiry Reasoning Skills in BioKIDS, *Han Bao, Amelia Wenk Gotwals, Nancy Butler Songer, Robert J. Mislevy*
- ◆ Assessing Students' Level of Knowledge and Analysing the Reasons for Learning Difficulties in Physics by Rasch Analysis, *Alexander Kauert and Hans E. Fischer*

- ◆ Interpreting and Using Multidimensional Performance Data to Improve Learning in Science, *Cathleen A. Kennedy and Karen Draney*
- ◆ Is the Paper and Pencil Assessment Mode Appropriate for Assessing the Learning Outcomes of Primary Science? Teachers' Attitudes, *Iris Lee and Guanzhong Luo*
- ◆ Increasing Students' Interest: Informal Learning in Authentic Science Labs, *Katrin Engeln and Jürgen Rost*

 Yes, I would like to purchase *Applications of Rasch Measurement in Science Education*

	Cost
_____ Copies Hard Cover at \$63 per copy (ISBN 1-934116-00-9)	_____
_____ Copies Soft Cover at \$51 per copy (ISBN 1-934116-01-7)	_____
_____ Priority mail for delivery in the US at \$10 per copy	_____
_____ Priority mail for delivery in Canada at \$27.50 per copy	_____
_____ Priority mail for delivery outside of the US and Canada at \$34.50 per copy	_____
Total Due:	_____

Name _____

Address _____

City _____

State _____ Zip Code _____

Country _____

E-mail address _____

Funds are payable in U.S. currency drawn on U.S. banks. Please make checks payable to **JAM Press**. Credit card payments (Visa and MasterCard) are accepted. Please see the JAM Press Books page order form on our web site (www.jampress.org) for details. An electronic funds transfer (EFT) option is available on request. Please mail form and payment to:

JAM Press
P.O. Box 1283
Maple Grove, MN 55311, USA