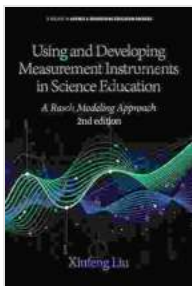


# Rasch Modeling: An Essential Tool for Advancing Science and Engineering Education

Researchers in science and engineering education now have a powerful tool at their disposal with the release of the second edition of "Rasch Modeling: An and Applications in Science and Engineering Education." This comprehensive resource provides a thorough exploration of Rasch modeling, a robust statistical method that enables researchers to gain valuable insights into complex educational data.



## Using and Developing Measurement Instruments in Science Education: A Rasch Modeling Approach 2nd Edition (Science & Engineering Education Sources)

by Xiufeng Liu

★★★★☆ 4 out of 5

Language : English  
File size : 10625 KB  
Text-to-Speech : Enabled  
Screen Reader : Supported  
Enhanced typesetting : Enabled  
Word Wise : Enabled  
Print length : 396 pages



## What is Rasch Modeling?

Rasch modeling is a measurement model that assumes that the probability of an individual answering a question correctly is a function of their ability

and the difficulty of the question. It is a powerful tool for analyzing data on human performance, such as test scores, survey responses, and ratings.

Rasch modeling has a number of advantages over other statistical methods, including:

- It is a parametric model, which means that it makes assumptions about the distribution of the data. This allows for more powerful statistical tests and more precise estimates.
- It is a person-centered model, which means that it focuses on the individual rather than the group. This allows for a more detailed understanding of individual strengths and weaknesses.
- It is a unidimensional model, which means that it assumes that all of the items on a test or survey measure a single construct. This allows for a more straightforward interpretation of the results.

## **Applications of Rasch Modeling in Science and Engineering Education**

Rasch modeling has a wide range of applications in science and engineering education, including:

- **Test development and validation:** Rasch modeling can be used to develop and validate tests and surveys to measure student learning. It can also be used to identify items that are biased or unfair.
- **Analysis of student responses:** Rasch modeling can be used to analyze student responses to open-ended questions and other qualitative data. This can provide valuable insights into student thinking and understanding.

- **Assessment of program effectiveness:** Rasch modeling can be used to assess the effectiveness of educational programs and interventions. It can also be used to identify areas where improvements can be made.

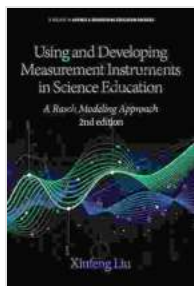
## **What's New in the Second Edition?**

The second edition of "Rasch Modeling: An and Applications in Science and Engineering Education" has been extensively revised and updated to reflect the latest advances in Rasch modeling. Some of the new features include:

- **New content on the use of Rasch modeling for assessing program effectiveness**
- **New examples and case studies from science and engineering education**
- **Updated references and resources**

"Rasch Modeling: An and Applications in Science and Engineering Education" is an essential resource for researchers in these fields. This second edition provides a comprehensive overview of Rasch modeling and its applications. It is a must-have for anyone who wants to use Rasch modeling to improve their research.

To Free Download your copy of the second edition of "Rasch Modeling: An and Applications in Science and Engineering Education," please visit the publisher's website.



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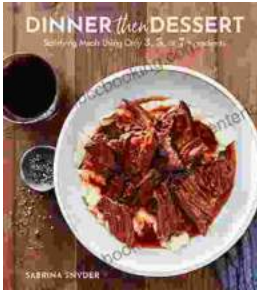
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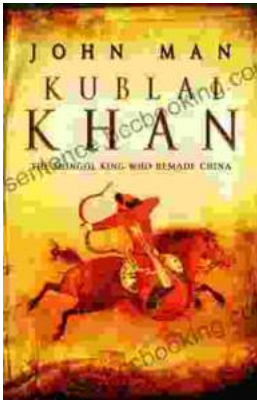
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