FUNDAMENTALS OF RASCH MEASUREMENT

A three-day workshop in understanding, designing, applying and interpreting Rasch Analyses

Profesor Trevor Bond, PhD

18 – 20 July 2011

Venue :
Gerbang Minda,
Faculty of Education,
Universiti Kebangsaan Malaysia

Organizer :
Measurement Centre in Education
Faculty of Education
University Kebangsaan Malaysia

With Cooperation
Postgraduate Association
Faculty of Education
University Kebangsaan Malaysia

Introduction:

The Rasch model, which is one of a family of Item Response Theory models, provides human science researchers (including psychologists, social workers, educators, and managers) with a conceptual and analytic tool to develop, utilize and monitor high quality measures of latent variables such as attitudes, traits, and abilities. In turn, high quality measurement is likely to have a positive impact on research as well as educational outcomes. Current development in measurement and evaluation practices reveal that the application of Rasch measurement techniques is rapidly increasing in popularity and is becoming the norm for establishing the quality of the measurement tools used in the social sciences.

The workshop will introduce participants to the conceptual underpinnings of the model and will support them to start analyzing their own data with Rasch Analysis software. It is structured to provide not only the theoretical background to measurement and fundamentals of the Rasch Model, but also to demonstrate how to design to research study, apply the Rasch model, and interpret the results for publications. Certainly, this workshop is ideal for education as well as education studies research interested in learning how to implement the Rasch Model with their own data.
Biodata of Professor Trevor Bond

Professor Trevor Bond is an Adjunct Professor at faculty of Education, Universiti Kebangsaan Malaysia and at the School of Education, James Cook University, Australia. He is internationally regarded for his work on the application of Rasch analysis to developmental variables and educational outcomes.

He is also a specialist reviewer for journals across a wide range of human sciences and provides consultation to organizations involved in high-stakes educational testing in the US, UK and Europe. In 2005, he instigated PROMS: the Pacific Rim Objective Measurement Symposia to support the development of measurement capacity in S.E. and Eastern Asia. The second edition of his bestselling current book (co-authored with Christine Fox), Applying the Rasch model: Fundamental measurement in the human sciences, reflects his longstanding experience in educational settings as the background for applying fundamental measurement to outcomes in the human sciences. Prof. Bond is a regular presenter on topics of educational measurement and conducts Rasch measurement workshops in the U.S., S.E. Asia, Australia and Europe, in particular. Until recently, he was Head of the Department of Educational Psychology, Counselling & Learning Needs, at the Hong Kong Institute of Education.

The Aim of the Workshop

- To present an accessible overview of the properties and principles of Rasch Analysis and its advantages over Classical Test Theory (CTT);
- To demonstrate how Rasch analysis can be applied to measurement problems encountered by education professionals (including psychologist, engineers and scientists); and
- To prepare participants for performing their own analyses and interpreting the results.

The structure of the workshop will be as follows:

<table>
<thead>
<tr>
<th>Time</th>
<th>18th Julai 2011 (Monday)</th>
<th>19 Julai 2011 (Tuesday)</th>
<th>20 Julai 2011 (Wednesday)</th>
</tr>
</thead>
<tbody>
<tr>
<td>08.00 - 09.00</td>
<td>Registration and Breakfast</td>
<td>Breakfast</td>
<td>Breakfast</td>
</tr>
<tr>
<td>09.00 - 10.30</td>
<td>Introduction to the Rasch Model; Advantages over Classical Test Theory</td>
<td>Rating Scale Models, including Likert Scales</td>
<td>Practical Measurement using Likert Scale</td>
</tr>
<tr>
<td>10.30 - 11.00</td>
<td>Break</td>
<td>Break</td>
<td>Break</td>
</tr>
<tr>
<td>11.00 - 12.30</td>
<td>Key Rasch measurement principles &amp; their application to educational assessment</td>
<td>Partial Credit Models and Analysis. Publishing a Rasch Measurement Research Paper.</td>
<td>Practical Measurement using Likert Scale (Cont’d)</td>
</tr>
<tr>
<td>12.30 - 02.00</td>
<td>Lunch</td>
<td>Lunch</td>
<td>Lunch</td>
</tr>
<tr>
<td>02.00 - 04.30</td>
<td>Analyzing Dichotomous Data</td>
<td>Analyzing Polychromous data</td>
<td>Measurement using Partial Credit</td>
</tr>
<tr>
<td>04.30 - 05.00</td>
<td>Tea/Coffee Break</td>
<td>Tea/Coffee Break</td>
<td>Tea/Coffee Break</td>
</tr>
</tbody>
</table>

The workshop is both THEORETICAL and PRACTICAL workshop; participants should bring their own laptops. The fee structure are as follows:

- UKM students participation fee: RM 50.00
- Participants from other institutions: RM 300.00

Further Information and Registration:

Encih Shah Nazim b. Shahar
Tel: 019-2227672
Email: shah.nazim@yahoo.com