INTRODUCTION TO RASCH MEASUREMENT THEORY

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TARGET AUDIENCE: Researchers and teachers at all phases

DURATION: 2 hours.

MAXIMUM NO. OF PARTICIPANTS: 20 participants.

REQUIREMENTS: Computer lab with 20 stations.

MOTIVATION

RMT is gaining in popularity among researchers and test developers. There are software products which allow researchers to conduct a Rasch analysis relatively easily. In this workshop we provide activities which will provide insight into some of the processes underpinning the analysis.

CONTENT

The workshop will include background information on Georg Rasch and his early work, working on a data set (Excel format) following the analysis process, and finally investigate the alignment of item difficulty and person proficiency as exemplified in a person-item map.

ABSTRACT

Georg Rasch, a Danish mathematician developed the probabilistic model in response to a practical problem facing the Danish government regarding the retrospective evaluation of reading programmes for school underachievers. The problem posed to Rasch was whether the reading intervention had been successful. As learners had been given tests of differing difficulty, and not all learners had taken the same tests, the challenge was to find some valid means of comparison. The innovative solution was to place the tests of varying difficulty and the children of varying ability on the same scale.

Currently, the Rasch model is used extensively in a number of fields, including the health sciences. In education it is used extensively in large scale studies, in systemic testing, in computer adaptive testing and in research. Rasch measurement theory (RMT) is not without its detractors – for the 30 years prior to 2009, not a single article on RMT had been published in the British Journal for Educational Research.

Long, C. & Bansilal, S. (2013). Introduction to Rasch measurement theory. In Z. Davis & S. Jaffer (Eds.), *Proceedings of the 19th Annual Congress of the Association for Mathematics Education of South Africa*, Vol. 2. (pp. 41). Cape Town: AMESA.