## International Journal of

## **Academic Research**

**p-ISSN**: 2075-4124 **e-ISSN**: 2075-7107

National registration No: 2996

CrossRef DOI: 10.7813/2075-4124.2013

International Journal of Academic Research, Vol.5. No.1 (January, 2013)

Article DOI: 10.7813/2075-4124.2013/5-1/B.2

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Assessing engineering technology students' attitude towards problem solving in mathematics using Rasch model

**Abstract:** The students' attitude towards problem solving (SATPS) is designed to measure attitude based on three aspects that include patience, motivation and willingness. The purpose of the study is to conduct measurement and evaluation of (SATPS) instrument using Rasch Model to ensure the validity of the instrument. The instrument consists of 20 items was then analyzed using WINSTEP 3.69.1.11 with the intention to produce the evidence of validity on the instrument based on item response theory. The data is collected from 153 engineering technology students in a technical institute. The findings revealed that the instrument has reliability value of 0.95 and separation index is 4.42. The person reliability has value of 0.64 and separation index is 1.32. The fit statistics suggests some of the items were modified accordingly. The modification of the instrument would benefit to future study with regard to validation and reliability of SATPS.

**Keywords:** Attitude, problem solving, Rasch model, mathematics.

Pages: 14-17

## Cite this article:

N. Mohd, Siti M. Maat. Assessing engineering technology students' attitude towards problem solving in mathematics using Rasch model. International Journal of Academic Research Part B; 2013; 5(1), 14-17.