## Validity and Reliability of Competency Assessment Implementation (CAI) Instrument Using Rasch Model

**Authors:** Nurfirdawati Muhamad Hanafi, Azmanirah Ab Rahman, Marina Ibrahim Mukhtar, Jamil Ahmad, Sarebah Warman **Abstract:** This study was conducted to generate empirical evidence on validity and reliability of the item of Competency Assessment Implementation (CAI) Instrument using Rasch Model for polythomous data aided by Winstep software version 3.68. The construct validity was examined by analyzing the point-measure correlation index (PTMEA), in fit and outfit MNSQ values; meanwhile the reliability was examined by analyzing item reliability index. A survey technique was used as the major method with the CAI instrument on 156 teachers from vocational schools. The results have shown that the reliability of CAI Instrument items were between 0.80 and 0.98. PTMEA Correlation is in positive values, in which the item is able to distinguish between the ability of the respondent. Statistical data obtained shows that out of 154 items, 12 items from the instrument suggested to be omitted. This study is hoped could bring a new direction to the process of data analysis in educational research.

**Keywords:** competency assessment, reliability, validity, item analysis

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