

Dynamicality of Rasch Logits of USMEQ-i in skewness and kurtosis for normality testing

ABSTRACT

This article investigates the dynamicality of the USMEQ-I in terms of normality on skewness and kurtosis analysis based on both Rasch measurement model and Classical test theory. USMEQ-I was applied in measuring emotional quotient for medical students. The difference of Rasch model logits compared to Likert mean scale in normality context lacked of empirical evidence. This study endeavors to contribute to the methodology by replicating the respondents from medical to the technical field. A total of 1,845 students from five Malaysian polytechnics were selected using a proportionate stratified multistage cluster sampling. USMEQ-i with 39 items with seven constructs namely Emotional Control, Emotional Maturity, Emotional Conscientiousness, Emotional Awareness, Emotional Commitment, Emotional Fortitude, and Emotional Expression were analyzed by Rasch model using WINSTEPS. The findings confirmed that the logit of skewness and kurtosis are higher than the mean. The pattern of skewness and kurtosis for mean and logit tend to be compliance with their best range. Paired-samples t-test revealed that there was a significant difference for both scores and demonstrated that Rasch model logits and Likert mean score were strongly and positively correlated. Based on the results, it is statistically proven that Rasch model logits applicability are dynamics as substitutions to Likert mean score in normality testing. Further studies are proposed to inspire others on exploring logits with a different setting of testing and more types of normality testing.