

ASSESSING PSYCHOMETRIC OF MALAYSIAN VERSION OF SCHOOL LEADERS TRANSFORMATIONAL LEADERSHIP INSTRUMENT (Penilaian Psikometrik Instrumen Kepimpinan Transformasi Pemimpin Sekolah Versi Malaysia)

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ABSTRACT

The purpose of the study is to analyse the psychometric properties of a survey questionnaire, Malaysian Version of School Leaders Transformational Leadership Instrument (MvTL) using Rasch Measurement Model aided by Winstep software Version 3.73. The questionnaire was administered on 109 school teachers from Melaka. The data were analysed to examine the items functional accordingly from the aspect of items fit in measuring constructs, items polarity, unidimensionality, local independence and the reliability and separation of item and respondent. The Rasch analysis showed satisfying psychometric properties of MvTL after removal of some misfitting items. Fit statistic evaluation discovered that a sum of 5 items were out of range and leaving only 20 items remaining that are appropriate to measure the four constructs of the transformational leadership among school leaders in the MvTL. Further analysis with the remaining 20 items revealed that each PTMEA Corr is in positive values and met the assumptions of unidimensionality and local independence. Reliability and separation index were also within acceptable range. As for future research, it is recommended that different studies should be organized by using a bigger scope and various samples to generate a much better, detailed and comprehensive information which can be represented more extensively.

Keywords: school leader; psychometric; Rasch measurement model; transformational leadership; instrument

ABSTRAK

Kajian ini bertujuan untuk menganalisis ciri psikometrik bagi instrumen soal selidik, Instrumen Kepimpinan Transformasional Pemimpin Sekolah (MvTL) Versi Malaysia dengan menggunakan Model Pengukuran Rasch melalui perisian Winstep Versi 3.73. Soal selidik telah ditadbir kepada 109 orang guru sekolah dari Negeri Melaka. Data dianalisis untuk menentukan sama ada item-item berfungsi dengan sewajarnya mengikut aspek kesesuaian item dalam konstruk pengukuran, kekutuban item, unidimensi, kebebasan setempat dan kebolehpercayaan serta pemisahan item dan responden. Analisis Rasch menunjukkan ciri psikometrik MvTL yang memuaskan selepas beberapa item yang tidak sesuai digugurkan. Penilaian statistik kesesuaian item mendapati sejumlah 5 item berada di luar julat yang ditetapkan dan hanya 20 item sahaja yang didapati sesuai untuk mengukur empat konstruk kepimpinan transformasi dalam kalangan pemimpin sekolah dalam MvTL. Analisis lanjut terhadap baki 20 item menunjukkan bahawa setiap PTMEA Corr berada dalam nilai positif dan memenuhi andaian unidimensi dan kebebasan setempat. Indeks kebolehpercayaan dan pemisahan juga berada dalam julat yang boleh diterima. Bagi penyelidikan masa hadapan, kajian yang berbeza dicadangkan untuk dilaksanakan dengan menggunakan skop yang lebih besar dengan melibatkan kepelbagaian sampel untuk menghasilkan maklumat yang lebih baik, terperinci dan komprehensif agar diwakili dengan lebih meluas.

Kata kunci: pemimpin sekolah; psikometrik; model pengukuran Rasch; kepimpinan transformasi; instrumen

References

- Antonakis J. 2018. Transformational and charismatic leadership. In Antonakis J. & Day D.V. (eds.). *The Nature of Leadership*. 3rd Ed. Thousand Oaks, CA: SAGE Publications, Inc.
- Aydin A., Sarier Y. & Uysal S. 2013. The effect of school principals' leadership styles on teachers' organizational commitment and job satisfaction. *Educational Sciences: Theory and Practice* **13**(2): 806–811.
- Balsamo M., Giampaglia G. & Saggino A. 2014. Building a new Rasch-based self-report inventory of depression. *Neuropsychiatric Disease and Treatment* **10**: 153–165.
- Bass B.M. 1985. *Leadership and Performance Beyond Expectation*. New York: Free Press.
- Bass B.M. & Riggio R.E. 2006. *Transformational Leadership*. 2nd Ed. NJ: Lawrence Earlbaum Associates Publishers.
- Bond T.G. & Fox C.M. 2015. *Applying the Rasch Model: Fundamental Measurement in the Human Sciences*. 3rd Ed. NY: Routledge.
- Bryman A. 1992. *Charisma and Leadership in Organizations*. London: SAGE Publications
- Burns J.M. 1978. *Leadership*. NY: Harper & Row.
- Fisher W.P. 2007. Rating scale instrument quality criteria. *Rasch Measurement Transactions* **21**(1): 1095.
- Gandolfi F. 2012. A conceptual discussion of transformational leadership and intercultural competence. *Revista de Management Comparat Internațional* **13**(4): 522–534.
- Ghasabeh M.S., Soosay C. & Reaiche C. 2015. The emerging role of transformational leadership. *The Journal of Developing Areas* **49**(6): 459–467.
- Habib I. & Zaimah R. 2012. Amalan kepimpinan transformasi pengetua dan hubungannya dengan kepuasan kerja guru. *Persidangan Kebangsaan Ekonomi Malaysia ke VII* **2**: 1471–1478.
- Hemsworth D., Muterera J. & Baregheh A. 2013. Examining Bass's transformational leadership in public sector executives: A psychometric properties review. *Journal of Applied Business Research* **29**(3): 853–862.
- Jyoti J. & Bhau S. 2016. Empirical investigation of moderating and mediating variables in between transformational leadership and related outcomes: A study of higher education sector in North India. *International Journal of Educational Management* **30**(6): 1123–1149.
- Linacre J.M. 2002. What do infit and outfit, mean-square and standardized mean? *Rasch Measurement Transactions* **16**(2): 878.
- Linacre J.M. 2016. *A user's guide to WINSTEPS: Rasch Model Computer Programs*. Chicago: Mesa-Press.
- Mokhber M. & Vakilbashi A. 2015. Effect of transformational leadership and its components on organizational innovation. *Iranian Journal of Management Studies* **8**(2): 221–241.
- Northouse P.G. 2016. *Leadership: Theory and Practice*. 7th Ed. Thousand Oaks, CA: SAGE Publications Inc.
- Odumeru J. & Ifeanyi G.O. 2013. Transformational vs. transactional leadership theories: Evidence in literature. *International Review of Management and Business Research* **2**(2): 355–361.
- To M.L., Tse H.H.M. & Ashkanasy N.M. 2015. A multilevel model of transformational leadership, affect, and creative process behavior in work teams. *The Leadership Quarterly* **26**(4): 543–556.
- Wang G., Oh I.-S., Courtright S.H. & Colbert A.E. 2011. Transformational leadership and performance across criteria and levels: A meta-analytic review of 25 years of research. *Group & Organization Management* **36**(2): 223–270.
- Wu M. & Adams R. 2007. *Applying the Rasch Model to Psycho-Social Measurement: A Practical Approach*. Melbourne: Educational Measurement Solutions.

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