

General Ability or Distinct Scholastic Aptitudes? A Multidimensional Validity Analysis of the Psychometric Higher-Education Entrance Test

Dvir Kleper, Noa Saka

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Abstract

The present study explored the construct validity of the Psychometric Entrance Test (PET) for higher education in Israel, as represented by the factorial structure of the scholastic aptitudes it measures, and focused on whether the test presents a single measure of overall ability or a measure of the fields of knowledge that are being tested. In Study 1, we used Exploratory Factor Analysis to generate hypotheses regarding the factorial structure of the test. In Study 2, Confirmatory Factor Analysis was carried out to compare competing models that were constructed based on theoretical considerations and the results of Study 1. The findings indicated that a two-layered hierarchical model, encompassing both a *General Ability* factor and three scholastic domain-specific factors (*Verbal Reasoning*, *Quantitative Reasoning*, and *English*), showed the best fit. Within the framework of the CFA, several statistical procedures were applied to assess reliability (indicator and complexity) and validity (convergent and divergent).