

Abstract

This research project examined the predictive validity of the Abstract Reasoning Test and the Raven's Advanced Progressive Matrices on the academic results of first year engineering students. Additionally, biographical variables were examined in order to assess their contribution to the student's scores on the psychometric tests. This research is important as the engineering department were looking to combat the high failure rate amongst first year engineering students. The department was looking to use the ART and the Raven's to foresee the subjects in which students would struggle, enabling them to prepare extra assistance in this regard. The sample was the 2013 and 2014 first year engineering students at the University of the Witwatersrand, Johannesburg (N=395). The analysis showed that the ART and Raven's do not predict the academic results of engineering students in their first year of study. The academic results refer to the marks obtained in the first year subjects of Chemical and Metallurgical Engineering, Physics, Chemistry, Economics and Mathematics. However, the biographical variables (especially those of home language and race) play an important role in contributing to the scores achieved on both psychometric tests.