

Construct Validation of Learning Efficiency (Gl) and Retrieval Fluency (Gr) of AJT Cogtest

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Abstract

The development of AJT Cogtest provides enhancement of CHC theory as it found that long-term storage & retrieval (Glr) has been divided into two separated broad abilities: learning efficiency (Gl) and retrieval fluency (Gr). This study investigated the appropriateness of that notion using multitrait-multimethod (MTMM) and confirmatory factor analysis (CFA). Data are taken using multi-stage random sampling and obtained 4.839 children aged 4-18 from every province in Java as participants. MTMM analysis suggest, correlation Gl and Gr are ranging from moderate to low in respect of sub tests which measuring similar construct tend to have higher correlation. CFA suggest, the model proposing discriminant validity of sub tests measuring different construct have more satisfaction to model fit than the model proposing to convergent validity. The study have found that the discriminant model is more fit and confirms that the measuring of Gl and Gr are different construct and should be assessed separately, as implemented in AJT Cogtest.

Keywords: confirmatory factor analysis, construct validity, AJT test, multitrait-multimethod, Catell-Horn-Carroll