

## **The construct and Predictive Validity of Beggs's Developing Cognitive Abilities Test among Junior Secondary School Students**

By

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### **Abstract**

*The study determined the construct validity of DCAT and investigated the predictive ability of DCAT on students' performance in Mathematics and English Language with the aim of ascertaining the suitability of DCAT use among junior secondary school students in Nigeria. The study adopted descriptive survey design. The population for the study comprised all public junior secondary school students in Ondo state. The sample consisted of 1080 JSS III students randomly selected from 18 junior secondary schools. Developing Cognitive Ability Test and OSJSCE questions were adopted for data collection. Data were analysed using Pearson product moment correlation Coefficient ( $r$ ) and regression analysis. The results showed that while the items of verbal ability subset of DCAT are measuring a construct not different from English Language subset of OSJSCE ( $r = 0.671$ ), the reverse is the case for quantitative and spatial abilities subsets ( $r = -0.019$  and  $r = -0.034$ ) respectively. The result also showed that the items of quantitative and verbal abilities subset of DCAT converge with the items of mathematics subset of OSJSCE ( $r = 0.709$  and  $r = 0.178$ ) respectively. Furthermore, the results showed that while DCAT significantly predict students' performance in mathematics ( $\beta = 0.517$ ), it does not significantly predict students' performance in English Language. However, the verbal ability subset of DCAT significantly predicts students' performance English Language. The study therefore concluded that only the verbal and the quantitative subsets of DCAT is suitable for use among the junior secondary school students.*