

Predicting Students' Achievement in Physics using Academic Self Concept and Locus of Control Scale Scores

By

Oludipe Bimbola Dupe

Curriculum Studies and Instructional Technology Dept., Faculty of Education,
Olabisi Onabanjo University P.M.B. 2002 Ago-Iwoye, Ogun State, Nigeria
bimbolaoludipe@yahoo.com

Abstract

Based on researchers' submission that student factors are germane in explaining underachievement in Physics at all levels, this study focused on predicting students' achievement in secondary school Physics using their Academic Self Concept and Locus of Control Scale Scores was the main thrust of this study. Three hypotheses were tested. The sample was made of two hundred senior secondary school II Physics students (100 Boys and 100 girls, with mean age of 16.5years) randomly drawn from six public co-educational secondary schools in Irepodun Local government area of Kwara state. Data were collected by means of three instruments: a Physics Achievement test ($r = 0.71$); Academic self concept scale ($\alpha=0.85$) and Locus of Control scale ($\alpha=0.77$). Data were analysed using both descriptive and inferential statistics. Findings revealed that Academic self concept and Locus of control, when taken together, significantly predicted students' achievement in Physics ($R^2 = 0.154$, $p < 0.05$); academic self concept alone also significantly predicted students' achievement in Physics ($R^2 = 0.144$, $p < 0.05$) however Locus of control alone did not significantly predict students' achievement in Physics ($R^2 = 0.017$, $p > 0.05$). These findings suggest that as against students' Locus of control, academic self concept is a potent student factor to be taken into consideration when explaining achievement in physics. It was recommended among others that Physics teachers should help boost students' personality factors especially academic self concept by being warm towards students and creating a conducive classroom environment that makes physics learning more practical and interesting. Curriculum affective components of learning should also be incorporated into school curriculum by curriculum developers.

Keywords: *Predicting, achievement, physics, Academic self concept, Locus of Control*