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Efficacy of Computer Mediated Power Point Presentations on Students' Learning Outcomes in Basic Science in Oyo State, Nigeria

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Abstract : The lingering poor performance of students in basic science spells doom for a vibrant scientific and technological development which pivoted the economic, social and physical upliftment of any nation. This calls for identifying appropriate strategies for imparting basic science knowledge and attitudes to the teaming youths in secondary schools. This study, therefore, determined the impact of computer mediated power point presentations on students' achievement in basic science in Oyo State, Nigeria. A pre-test, posttest, control group quazi-experimental design adopted for the study. Two hundred and five junior secondary two students selected using stratified random sampling technique participated in the study. Three research questions and three hypotheses guided the study. Two evaluative instruments – Students' Basic Science Attitudes Scale (SBSAS, $r = 0.91$); Students' Knowledge of Basic Science Test (SKBST, $r = 0.82$) were used for data collection. Descriptive statistics of mean, standard deviation and inferential statistics of ANCOVA, scheffe post-hoc test were used to analyse the data. The results indicated significant main effect of treatment on students cognitive ($F(1,200)= 171.680$; $p < 0.05$) and attitudinal ($F(1,200)= 34.466$; $p < 0.05$) achievement in Basic science with the experimental group having higher mean gain than the control group. Gender has significant main effect ($F(1,200)= 23.382$; $p < 0.05$) on students cognitive outcomes but not significant for attitudinal achievement in Basic science. The study therefore recommended among others that computer mediated power point presentations should be incorporated into curriculum methodology of Basic science in secondary schools.

Keywords : basic science, computer mediated power point presentations, gender, students' achievement
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