International J. Soc. Sci. & Education
2013 Vol.4 Issue 1, ISSN: 2223-4934 E and 2227-393X Print

Improving the Teaching and Learning of Mathematics for the Attainment of Millennium Development Goals (MDGs) through the use of Mathematical Games in Makurdi Local Government Area, Benue State, Nigeria.

By

[1]IJI Clement, [1]Abakpa Benjamin and [2]Takor David
[1]Department of Science Education, University of Agriculture, Makurdi, Benue State, Nigeria.
[2]Department of Mathematics, Federal Government College, Enugu, Enugu State, Nigeria.

Abstract

The paper examined the effect of algebraic game on students' achievement in algebraic linear graphs. A sample of 130 junior secondary three students from two secondary schools in Makurdi Local Government Area were used for the study. Two research questions were asked while two hypotheses were formulated and tested. Algebra Substitution Achievement Test (ASAT), a 20-item instrument was developed by the researchers. The instrument was validated by three experts in mathematics education and two from measurement and evaluation while its reliability was established using cronbach Alpha which gave a reliability index of 0.89. Mean and standard deviation were used to answer the research questions while t-test was used to test the hypotheses formulated at 0.05 level of significance. Results revealed significant difference in the mean achievement scores of students taught algebraic linear graphs using algebra game and those taught using conventional method. It equally showed no significant difference in the achievement scores of male and female students. Based on the findings, it was recommended among others that mathematics teachers be effectively trained to use different educational games when teaching mathematics concepts for problem solving, communication, reasoning and connection skills which are necessary for the attainment of MDGs.

Keywords: *Teaching and Learning, Millennium Development Goals, Mathematical games and Algebraic linear graph.*