

Effects of Formative Assessment Classroom Teaching Strategy (FACTS) on Mathematics Academic Achievement and Effective Learning in Public Primary Schools in Nandi County, Kenya

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Abstract

The focus of the study was to determine the effects of teaching strategy called ‘Formative Assessment Classroom Teaching Strategy (FACTS)’ on primary school mathematics academic achievements and effective learning, more specifically on attitude toward mathematics, motivation to learning mathematics, self concept in mathematics learning interest in mathematics, it involved 2 teachers and 140 class six primary school pupils during the first term of the year 2015. The researcher developed a mathematical pupils’ book a teacher’ guide and other learning materials to be used in the experiment. The text books contained mathematics activities and exercises based on the Kenyan Primary school syllabus, covering the first three units of mathematics for class six.

Qualitative data collection technique used includes video recording, observation, oral interviews and documentary analysis while pupils’ questionnaire and achievement exam was used to collect quantitative data for the study. Data analysis methods used include; One-way and two-way Analysis of Covariance, Bivariate Correlation, Linear Regression analysis and descriptive statistics inductive content analysis was used to analyze qualitative data.

The findings of the study revealed that ‘Formative Assessment Classroom Teacher Strategy’ has strong positive significant effect on mathematics academic achievement and also on the following affective learning constructs attitude towards mathematics, motivation, interests and self-concept towards learning mathematics among boys and girls in both small and large class and finally ‘FACTS’ promote high teacher-pupil interactions. The researcher recommends the use of formative assessment classroom teaching strategy in mathematics

Keywords: Formative Assessment Classroom Teaching Strategy (FACTS), Mathematics, Academic Achievement, Effective Learning, Public Primary Schools, Nandi County, Kenya