

The Effect of Computer-Assisted Instruction on Student's Attitudes and Achievement in Matrices and Transformations in Secondary Schools in Uasin Gishu District, Kenya

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Abstract:

Performance in Mathematics in secondary school Education in Kenya remains poor. Consequently the Kenya secondary school examination (KCSE) Mathematics results continue to cause concern to all the stakeholders in the education sector. Therefore, there is serious and urgent need for intervention. Although research has indicated that computer-assisted instruction (CAI) enhances student achievement, promotes positive attitudes towards Mathematics and instruction, and improves interpersonal relations, few studies have focused on CAI in Kenyan secondary schools Mathematics teaching/learning. The purpose of this study was to investigate the effects of CAI on students' attitude and achievement in matrices and transformations between form four students who received instruction using CAI module or conventional instruction methods. The pretest – posttest control group experimental research design was used. Six classes selected at random with 205 students participated in the study. Results of this study indicated higher achievement and positive attitudes with CAI treatment groups. Making connections between the goals of Mathematics education and CAI offers a valuable means for improving mathematical knowledge and skills and hence performance in Mathematics.

Key Words: Computer-Assisted, Module, Achievement, Attitude, Pre-test, Post-test

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