

Effects of Cooperative Learning/ Teaching Strategy on Learners` Mathematics Achievement by Gender

Joseph Njogu Njoroge and Bernard Nyingi Githua

Abstract

Due to the high value attached to mathematics globally, the study of mathematics is compulsory in all primary and secondary schools in Kenya. However, students` performance in the subject worldwide and at Kenya certificate of secondary education (KCSE) examination is dismal with marked gender difference. Students have continued to perform poorly in certain mathematics topics due to ineffective teaching strategies practiced by mathematics teachers. One such topic is scale drawing taught to 14 year old form one students in secondary schools in Kenya. This study sought to determine the effects of Students Teams -Achievements Divisions, Co-operative Learning (STAD, CL) teaching strategy on students` mathematics achievement in scale drawing topic by gender. A simple random sample of four co-educational district secondary schools in Nakuru District was obtained. The study was carried out in a mathematics classroom setting. Solomon four group designs under quasi-experimental research was used. The two experimental groups were taught using co-operative learning strategy as treatment and two control groups were taught by use of conventional teaching methods. The sample size was 323 students comprising 161 boys and 162 girls. A mathematics achievement test (MAT) in scale drawing had a reliability coefficient of 0.84 .The MAT was administered to two groups (E1and C1) before the teaching of the topic and then to all the four groups after learning the topic, scale drawing. The t and ANCOVA tests were used to test the hypothesis at 0.05 significance level. The results indicated that there were no gender differences in students` mathematics achievement after their being taught scale-drawing topic through STAD, co-operative learning strategy. It was recommended that STAD co-operative learning strategy be included in the syllabus for pre-service and in-service teacher education programs and be used by mathematics teachers during instruction.

Keywords: STAD, Co-operative learning, Mathematics achievement, Gender

Full text: [http://www.ajssh.leena-luna.co.jp/AJSSHPDFs/Vol.2\(2\)/AJSSH2013\(2.2-60\).pdf](http://www.ajssh.leena-luna.co.jp/AJSSHPDFs/Vol.2(2)/AJSSH2013(2.2-60).pdf)