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**EFFECT OF COMPUTER BASED LEARNING IN MATHEMATICS ON
LEARNERS MOTIVATION AND ACHIEVEMENT LEVEL IN RELATION TO
GENDER IN BUNGOMA NORTH DISTRICT, KENYA.**



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ABSTRACT

The purpose of the study was to establish the influence of computer based learning in Mathematics on learners' motivation and achievement level in relation to gender. Specifically, the study sought to find out if there is any significant difference in achievement between boys and girls when exposed to computer based learning and find out if there is any relationship between gender and motivation in Mathematics when exposed to computer based learning among secondary school students in Bungoma North District, Western Province, Kenya. This study was based on the theory of situated learning which argues that learning as it normally occurs is a function of the activity, context and culture in which it occurs (Lave, 1988). Other researchers have further developed the theory of situated learning. They emphasize the idea of cognitive apprenticeship (Brown, Collins, & Duguid, 1989). The study adopted an experimental design where pre-test and post-test control group was used. The target population of the study was secondary school students from Bungoma North District, Western Province, Kenya. Purposive sampling was used to select schools with and without computers after which simple random sampling was used to select nine schools for the study. The sample size for the study was 240 respondents. Purposive sampling was used to select students who were computer literate then simple random sampling was applied to choose the respondents of the study. Mathematics achievement tests, questionnaires and interview schedule were used to collect data from the respondents. In data analysis both descriptive and inferential statistics were used. Descriptive statistics involved mean and standard deviation, and inferential statistics that were used were independent samples t-test and chi-square. It was found out that there was no significant difference between boys and girls in Mathematics achievement when exposed to computer based learning. Secondly, when exposed to CBL, it was established that there was no relationship between gender and the following aspects of motivation; the course being hard, involving and challenging, a pleasure and what was looked forward to, too stressful and demanding, liking and being scared of Mathematics. The study established a relationship between gender and CBL process being fun, stimulating and satisfying in favour of girls. The study therefore made the following recommendations: gender digital divide to be *addressed*, zero rating tax on ICT facilities, develop and use interactive Mathematics programmes, rural electrification programme to be continued, teachers to be equipped with the skills and knowledge they need to use the CBL technology, computer studies to be made compulsory in secondary schools.