EFFECTS OF COMPUTER BASED MASTERY LEARNING TEACHING APPROACH ON SECONDARY SCHOOL STUDENTS’ ACHIEVEMENT IN BIOLOGY IN BOMET DISTRICT, KENYA

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ABSTRACT:
This study investigated the effects of using Computer Based Mastery Learning (CBML) teaching approach on secondary school students’ achievement in Biology. A Solomon’s Four Group Non-equivalent Control Group research design was used in which four co-educational secondary schools were purposively sampled in Bomet District. The four schools were randomly assigned to four groups. Students in all the groups were taught the same biology content. Teachers in the experimental groups taught using CBML approach while teachers in the control groups taught using the conventional methods. The study focused on respiration topic and involved a sample of 167 Form Two students. After two weeks of teaching, all four groups were post-tested using Biology Achievement Test (BAT) whose reliability coefficient was 0.77. Data were analysed using ANOVA, t-test and ANCOVA. Results indicate that students taught using CBML approach had significantly higher scores in BAT than those taught using conventional methods. In addition, the study established that there is no gender difference in achievement when CBML is used. The researchers conclude that CBML is an effective teaching approach which should be incorporated in the teaching of Biology.

KEY WORDS: Computer Based Mastery Learning; Students’ Achievement; Learning Biology.