

Effect of Gender on Motivation in Chemistry Lessons when Students are Taught Through Computer Based Cooperative Mastery Learning (CBCML) in Bomet County, Kenya

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Abstract

Chemistry occupies a central position among science subjects in the secondary school curriculum. However, the academic performance of Kenyan students in the subject in secondary schools has remained below average over the years. The fundamental challenge facing the teaching of chemistry is how to enhance students' motivation in the subject. Although Computer Based Cooperative Mastery Learning (CBCML) may help in enhancing students' motivation to learn chemistry, its effects have not been determined in Bomet County. This was the focus of the study. Solomon Four Non-equivalent Control Group Design was used. The study sample comprised of 238 form three students from four schools purposively chosen from 21 County co-educational secondary schools in the county. The study involved two Experimental Groups taught through CBCML and two Control Groups taught through the Conventional Teaching Methods (CTM) for six weeks. A Student Motivation Questionnaire (SMQ) was administered during the pre-test and post-test. The reliability coefficient of the instrument was 0.88, estimated using Cronbach's Alpha Coefficient. Data analysis was carried out using descriptive as well as inferential statistics. The differences between the group means were checked for statistical significance using t-test. The findings of the study showed that the students exposed to CBCML had relatively higher scores in the SMQ than those taught through CTM. Thus, CBCML enhances students' motivation more than CTM irrespective of gender. Therefore chemistry teachers should incorporate the use of CBCML in their teaching.

Key Words: Computer Based Cooperative Mastery Learning, Chemistry, Students' Motivation, Gender

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