# EFFECT OF COLLABORATIVE LEARNING ON PARTICIPATION AND PERFORMANCE OF CHEMISTRY IN PUBLIC SECONDARY SCHOOLS IN KANDARA SUB COUNTY, MURANG'A COUNTY.

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## ABSTRACT

This study was undertaken to find out the effect of collaborative learning on participation and performance of chemistry in public secondary schools of Kandara Sub County in Murang'a County. It assessed the teaching approaches employed in these schools and their influence on participation and performance in chemistry. The study employed quasi-experimental design involving pre-test and post-test with one experimental group and one control group from county schools in Kandara sub county. The study aimed at achieving the following objectives: To establish the effect of collaborative learning on students' participation in chemistry in public secondary schools in Kandara Sub County, to find out the effect of collaborative learning on chemistry students' performance in public schools in Kandara Sub County, to investigate the effect of collaborative learning on chemistry performance in relation to gender among public secondary school chemistry students in Kandara Sub County and finally to determine whether there is a relationship in public secondary school students' achievements in Chemistry between those taught using collaborative learning and those taught using other methods in Kandara Sub County. It targeted all 49 public secondary schools in Kandara Sub County, from where four county schools were randomly selected to ensure the students participating were of comparable academic abilities. The study sample involved two hundred and sixteen (216) Form Two students in the four schools and eight (8) teachers. Students were taught one chemistry topic for five weeks and collaborative learning approach was used in experimental groups while the conventional teaching approach was used in control groups. Pre-test was administered before treatment and a post-test after treatment. The study employed three research instruments namely: Pre-test Students Chemistry Achievement Test (PRESCAT), Post-test Chemistry Achievement Test (POSCAT) and Chemistry Teacher's Questionnaire (CTQ). It was piloted in one school which was not included in the final study to ascertain their validity and reliability. Quantitative data collected was analysed using frequencies and percentages, and the results were reported in summary form using frequency tables. The study concluded that there is a positive association between collaboartive learning method and students' performance in Chemistry. The study recommended that Chemistry teachers should be sensitized on the effects of collaborative learning on students' performance in Chemistry. Since there was a positive relationship between collaborative learning and students' performance in Chemistry this method should be implemented in all the schools.