

**EFFECTS OF STRENGTHENING OF MATHEMATICS AND SCIENCE
IN SECONDARY EDUCATION PROJECT ON THE TEACHING AND
LEARNING OF CHEMISTRY IN PUBLIC SECONDARY
SCHOOLS IN LUGARI DISTRICT, KENYA**

BY

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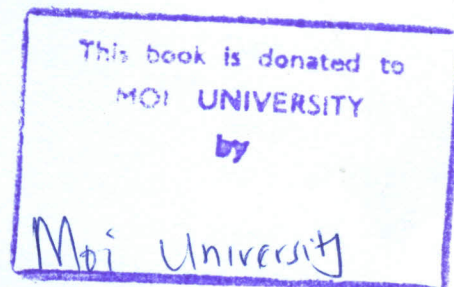
**THESIS SUBMITTED TO THE SCHOOL OF EDUCATION IN PARTIAL
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ABSTRACT

Strengthening of Mathematics and Science in Secondary Education (SMASSE) In-Service and Training Project was launched in Kenya in 1998. The main objective of the SMASSE IN-SET Project was to improve performance in Mathematics and Science subjects through student centered learning. The purpose of this study was to evaluate effects of SMASSE IN-SET Project on the teaching and learning of chemistry in Secondary Schools in Lugari District. The study employed descriptive survey design. The targeted population was the three thousand one hundred and eight students in forms three and four and the sixty six teachers of chemistry in the twenty-two secondary schools that offered KCSE examinations in the year 1999 in the district. The sample comprised sixteen teachers of chemistry and four hundred and ten students drawn from fourteen secondary schools. The sampled students were randomly selected, putting into consideration gender balance. Teachers were picked by both purposive and random sampling while some schools were purposely selected and others randomly sampled after stratification basing on type of the school and the role the school(s) played in the SMASSE IN-SET project. The sampled students and teachers formed the respondents in this study. Data was collected using questionnaires and document analysis. The questionnaire items were both open-ended and close-ended. The questionnaires were self administered. Data collected was analyzed by using descriptive statistics. The research established that students' attitude towards Chemistry had not changed from negative to positive as had been envisaged by SMASSE IN-SET project. In conclusion, though the SMASSE IN-SET Project had achieved some of its objectives such as improved performance in chemistry in KCSE examinations, it was yet to achieve much in making teachers practice some of aspects - such as teaching and learning of Chemistry being student centered, they were in-serviced on during their SMASSE IN-SETs. It is recommended that the way the SMASSE IN-SET is conducted should be re-invented with the view to motivating the participants and making them own the project. This, will make it possible for SMASSE IN-SET Project to achieve its set objectives.