

**EVALUATION OF STRENGTHENING MATHEMATICS AND SCIENCE
EDUCATION PROGRAMME IN SECONDARY SCHOOLS IN
BUNGOMA-CENTRAL SUB-COUNTY, BUNGOMA COUNTY
KENYA.**

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ABSTRACT

Effective teaching in secondary schools is no longer dependent on qualified teachers but on the quality of teachers who ensure learners score excellent grades, sound knowledge and have practical skills at the end of their secondary school cycle. Increased competition in society has led to a rise in minimum entry points to university education, should be reflected in attainment of quality grades in secondary schools. It is important to note that there has been poor performance in mathematics and science subjects which is a major source of concern to the government, parents and educators in the country. It is due to this dismal performance that in-service training for science and mathematics teachers through SMASSE program was found necessary. The objectives of this study were to determine students' attitude towards mathematics and science subjects in secondary schools in Bungoma central sub-county Bungoma county; investigate the extent to which the teachers of mathematics and science had embraced SMASSE insets and its ideals; and to assess the worth of SMASSE program in terms of finances, the energy and the time invested in the program. The purpose of this study was to evaluate the SMASSE INSET teaching and learning program of mathematics and science subjects in secondary schools in Bungoma Central sub-county. The study was significant in availing information about SMASSE program to the stakeholders so that they can understand how the program has performed *vis a vis* its aims and objectives. Independent variables included students' attitude towards mathematics and sciences, teachers' willingness to embrace SMASSE ideals and the general worth of the SMASSE program against the improved academic performance, better teaching methods and change of attitude as depicted in the conceptual framework. The study was grounded on the social constructivist theory about social interaction. Teachers of mathematics and science interact with other experienced teachers and facilitators at the IN-SET and in turn interact with students back in schools to bring about meaningful learning as explained by the theory. The study employed descriptive survey research design. The target population was all the mathematics and science subjects' teachers and students in secondary schools in Bungoma Central sub-county in Bungoma County. The sample comprised 16 teachers of mathematics and science subjects and 410 students drawn from secondary schools. Stratified random sampling and purposive sampling methods were used to obtain a representative sample. Data were collected using questionnaires and documentary analysis. The questionnaire items were open-ended and close-ended. These questionnaires were administered with a lot of confidentiality and informed consent. Quantitative data collected were analyzed using descriptive statistics mainly mean, mode and percentages. The research established that students' attitude towards mathematics and science had not changed from negative to positive as had been envisaged by SMASSE IN-SET Program. It was concluded that the Program was yet to achieve much in making teachers practice some aspects of the IN-SET such as teaching and learning of mathematics and science subjects being student centered. It is recommended that the way the SMASSE IN-SET is conducted should be reinvented with a view of motivating the participants and making them own the program. This will make it possible for SMASSE IN-SET program to achieve its set objectives.