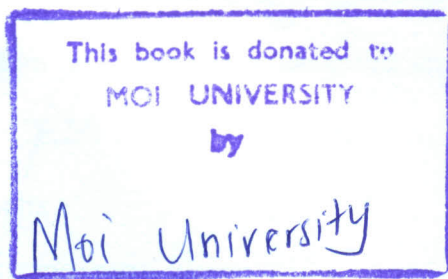


**THE PERCEPTION OF SECONDARY SCHOOL TEACHERS OF  
MATHEMATICS ON SMASSE IN-SERVICE TRAINING PROGRAM: A  
CASE OF GEM DISTRICT SIAYA COUNTY IN KENYA**



**BY**

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## ABSTRACT

This study sought to investigate the perception of secondary school teachers of Mathematics on the Strengthening Mathematics and Sciences in Secondary Education In-Service Training (SMASSE-INSET) program in Gem district, Siaya County in Kenya. The specific objectives of the study were to find out the perception of secondary school teachers of Mathematics on SMASSE-inset course content, methods of teaching, the availability of facilities and the administrative procedures used in the program. The study was conceived from the continued below average performance in Mathematics compared to other compulsory subjects in the 8-4-4 Kenya Certificate of Secondary Education (KCSE) national examinations and specifically in Gem district. This was despite the numerous resources and time put in by the government in Smasse-inset program to help improve Mathematics performance as one of the key subjects in job and higher education placement in Kenya and the globe at large. This quantitative study adopted a descriptive survey design. The study was based on Speck (1996) Adult learning theory and conducted within April-August 2011. Stratified sampling method was used by dividing the schools into provincial and district categories. Thereafter, 103 teachers and 7 facilitators were selected using simple random and purposive sampling methods respectively to make a sample of N=110 out of the target population of 147. Questionnaires and structured interview schedules were used to collect data from the teachers and the facilitators' respectively. Data was analyzed using frequencies, percentages and reported in tables and charts for descriptive purposes. The study established that majority of participants had attended less than 4 cycles of Smasse-inset since its inception in 2004; that there was minimal consultation with trainees in Smasse-inset course content selection; the methods of teaching used were inappropriate for adult learning; the availability of facilities was wanting and inadequate while the administrative procedures were punitive and non participative. The study recommended that Smasse-inset content be self reported needs by the trainees; methods of teaching adopts more adult friendly approaches; the availability of facilities be increased to meet the adults' learning needs and that administrative procedures be participative. These recommendations will improve Smasse-inset program effectiveness hence improved teaching/learning and performance in Mathematics in secondary schools in Gem District and the country at large. This will in turn accelerate achievement of Kenya Vision 2030 of Kenya being an industrialized nation anchored on need for people with sound mathematical and scientific knowledge. In addition the achievement of Millennium Development Goals (MDG's) of access to quality education will be accelerated. The study will inform policy decision making in in-service training.