

The overall performance in Mathematics has been declining in secondary schools over the years. The best way to address the problem is by ensuring appropriate teaching interventions that can be realized through professional development of Mathematics teachers. One of the strategies that has been put in place in Kenya is the SMASSE Project. The purpose of the study was to assess the effectiveness of in-service courses for teachers of mathematics of public secondary schools in Thika West District. To achieve the objective, the study was guided by the following specific objectives: to establish the attendance of in-service courses by mathematics teachers in public secondary schools in Thika West District, to determine the effectiveness of in-service courses on the teaching of mathematics in public secondary schools, to find out the challenges facing the application of the methodologies and skills acquired in the teaching of mathematics in public secondary schools in Thika West District and to make recommendations on the ways of improving the effectiveness of in-service training of mathematics teachers. Survey design was used for the study. The population for the study was the 16 public secondary schools in Thika West District. The study targeted mathematics teachers, principals and those in charge of SMASSE INSET at the district level. Stratified sampling technique was used to select 14 (87.5%) public schools for the study while purposive sampling technique was used to select teachers, principals and those in charge of SMASSE training at the District level. A total of 14 schools were sampled for the study. The researcher targeted a total of 72 respondents for the study. This constituted 56 teachers, 14 principals and 2 SMASSE trainers at the District level. Out of the 72 respondents targeted by the study, 65 participated and gave the information that was required for the study; this gave a response rate of 90%. Questionnaires and interview schedules were used as instruments for data collection. Descriptive statistics such as frequencies, percentages, means and standard deviation were used to analyze the data. The study found that most of the teachers in the schools studied had attended the in-service courses offered by SMASSE. The study also found that SMASSE programmes prepared teachers for assignments in new areas, provided opportunities for untrained teachers to become eligible for certification and upgraded serving teachers for better certification thus improving performance of students in national examinations. The study finally found that the major challenges facing the application of the methodologies and the skills acquired in SMASSE training were: lack of motivation among teachers, teachers' heavy workload, the negative attitude of teachers towards the programme, lack of support from the administration, inadequate teaching and learning resources for mathematics in schools and shortage of mathematics teachers in schools. It was concluded that in-service courses organized by SMASSE are well attended by mathematics teachers, that the trainings were very effective and that the training faced many challenges including lack of motivation, heavy workload, teachers attitude and inadequate teaching and learning resources. The study recommended that teaching and learning resources should be made available in schools for effective application of what is learnt by teachers during the training.