1. **Introduction**

In-service education and training may be defined in this study as all education and training, which is given to teachers and education administrators following initial training and attainment of professional certificate. It is an indisputable fact that this aspect of education and training for teachers is an important and integral part of educational system. Its importance has been given prominence of governments, international organizations and through research and writing by academicians. It is this eminence and attention given to the programme, which aroused the interest of the researcher leading to his choice of in-service teacher education and training as his area of study.

2. **Statement of the problem**

The exact formulation of the problem was the organization and effectiveness of in-service education and training for teachers and its role in teachers’ performance and primary schools’ achievement in national examinations in Kenya.

3. **Objectives of the Study**

The specific purposes of the study were as follows:

3.1 To investigate the activities of in-service education and training of teachers.

3.2 To investigate the role of in-service teachers’ education and training in educational innovations, teachers’ performance and schools’ achievement in National Examinations.

3.3 To study the experience and attitudes of in-service tutors and policy-makers.

3.4 To investigate the attitudes of in-service education and training providers.

3.5 To find out the experiences of in-service education and training participants (head teachers and classroom teachers in primary schools.)

3.6 To make available information gathered on in-service education and training to educational planners and administrators in an effort to have systematic planning and execution of future in-service teacher training programmes.

3.7 To arouse interest in further research into in-service teacher education and training in the country.

4. **Basic Assumptions**

The following basic assumptions were formulated to guide the researcher:

4.1 Teachers are key agents in effecting education changes.
4.2 Educational personnel are unlikely to change simply because they are told to do so.

4.3 Teacher-oriented, school-based in-service training programmes are considerably more effective than centrally designed and institutionally organized activities.

4.4 Educational personnel will take educational innovations seriously when they are involved in deciding their own educational needs, participating and designing ways of solving identified problems.

4.5 In-service education and training programmes have not catered for the majority of personnel involved in educational planning, management and implementation.

4.6 Resources made available to the in-service teacher education schemes are minimal in comparison to the official emphasis put on the programme.

4.7 Experienced teachers and educational personnel and academicians have not been given opportunity or have not made any efforts to help new teachers entering the service or old teachers who need assistance.

4.8 Lack of induction courses for newly recruited teachers and newly appointed head teachers has placed education in a state of unfavourable position.

4.9 Lack of evaluation of in-service teacher education and training has adversely affected the way the programme is conducted.

5. Variables

The researcher investigated the following variables:

5.1 Policyholders and administrators at the Ministry headquarters and in the field.

5.2 The in-service providers or agencies.

5.3 Instructional facilities, which included libraries, staff composition, instructional materials, curriculum activities and evaluation scheme.

5.4 Financial input in the programme.

5.5 Management and administration of the programme at all levels.

5.6 Head teachers and classroom teachers.
6. Sample of the Study

The research samples involved the following:

6.2 Ministry field staff in two Districts and Municipal Council areas.
6.3 National in-service teacher training providers (KIE, TSC, KNUT AND KESI).
6.4 Teachers Advisory Centres.
6.5 Thirty Primary Schools: 10 in each District and 10 in the Kisumu Municipality.
6.6 Thirty head teachers.
6.7 299 classroom teachers.

7. Tools

The study used the following tools:

7.1 Library research in Kenya and at the University of London Institute of Education Library.
7.2 Field visits in Kenya and to some institutions concerned with in-service teacher education and training in the United Kingdom.
7.3 Interviews
7.4 Observations
7.5 Questionnaires

8. Data Collection

The data and information were gathered in six phases:

8.1. Phase I: Library research and literature review.
8.2. Phase II: Tools administration to the Ministry of Education, Science and Technology headquarters staff.
8.3. Phase III: Tools administration to the Ministry’s field staff.
8.4. Phase IV: Tools administration to in-service teacher education and
training providers.

8.5. Phase V: Tools administration to head teachers and classroom teachers.

8.6. Phase IV: Further library research at the University of London Institute of Education Library in the U.K.

9. Research Findings

The main points, which appear to have emerged from the study, are as follows:

9.1. There is no clear national objectives and policy on in-service teacher education and training especially at post-professional certificate level.

9.2. The little reference in the Ministry of Education, Science and Technology about in-service teacher education and training programmes is concerned with pre-professional certificate activities given to untrained teachers in the service.

9.3. In-service education and training, although given a lot of emphasis, does not have a status, which is commensurate with the stress given to it.

9.4. There are no resources allocated for the training or professionally qualified classroom teachers.

9.5. In-service teacher education and training has not catered for the majority of teachers.

9.6. There is no clear procedure for need, identification and the establishment of priorities for in-service training programmes.

9.7. There is no co-ordination between different agencies concerned with in-service training programmes.

9.8. Period given to in-service activities is too short.

9.9. There is no co-ordination between pre-service and in-service training programmes.

9.10. There is no evidence of systematic evaluation of in-service training activities.

9.11. Lack of inbuilt evaluation of post in-service training programmes, coupled with the limited period in which these activities are organized and conducted, it was not possible for the study to determine the effectiveness of in-service training programmes and their contribution to the improvement
of teachers’ performance or schools’ achievement in National Examinations.

10. **Recommendations**

The researcher has made several outstanding recommendations some of which are the following:

10.1. Restructuring of Teacher Education Certificates and grading system.

10.2. Establishment of a fully-fledged department of in-service teacher education and training.

10.3. Co-ordination of pre-service and in-service teacher education.

10.4. Pre-service Teacher Education and Training Programme should concentrate on professional discipline and reduced academic subjects emphasis.

10.5. Greater participation in in-service Teacher Education and Training Agencies with the possibility of reorganizing some of these agencies to make them more effective.

10.6. Improvement of Conditions and Terms of Service for Teachers.

10.7. Planning for future issuance of Bachelor of Education to all teachers with certificate either in Primary Education or Secondary Education.