

**AN INVESTIGATION INTO THE  
CHALLENGES FACING IN-SERVICE  
TRAINING OF SECONDARY SCHOOL  
TEACHERS IN NAIROBI PROVINCE**

UNIVERSITY OF NAIROBI  
EAST AFRICANA COLLECTION

*By*

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A research project submitted in partial fulfilment of the requirements for the Degree of Master of Education in Educational Administration and Planning, University of Nairobi

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## DECLARATION

This research project is my original work and has not been presented for a degree in any other university



**NJAU SUSAN THAMI**

This research project has been presented for examination with my approval as University supervisor



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## **DEDICATION**

This research project is dedicated to the people who are very close to my heart my husband – Jackson Njau Kinyanjui, my children - Charles Kinyanjui, Jane Mwihaki and Rose Waithira for loving me as a wife and a mother to them all.

## **ACKNOWLEDGEMENT**

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To you all I say, "Thank you" and May God bless you all.

## ABSTRACT

The concern of quality teachers is becoming increasingly important with most Kenyans becoming increasingly enlightened. It is no longer a matter of having teachers in a school but the quality of teaching is important. This is the more reason that parents reject some calibre of teachers if they are not delivering.

With the new trends in education the teacher has to keep abreast with the changes in the teaching methodologies and curriculum. The process of development of Human resource is continuous.

Just like other organizations that are concerned with their staff development the study was to investigate the challenges that face in-servicing of teachers as one method of staff development. The study wanted to establish the difficulties encountered in-servicing of secondary school teachers in Nairobi Province by not only the Ministry of Education Science and Technology (MOEST) but also by the teachers, and the school managers. The study was also investigating whether there are any forms of in-service for the teachers and the value the teachers attach to in-service training.

Fifteen (15) schools and 317 teachers from these schools were selected for study. Also targeted were education officers in various departments. The director Kenya Education Staff Institute (KESI), the Provincial Inspector of Schools (Nairobi) and the in-service Training (INSET) co-coordinator were part of the study.

The schools were first organized according to divisions and then randomly selected. The information from the teachers and the Provincial Inspector of Schools (P.I.S.) was obtained by use of a questionnaire whereas from the director KESI and INSET co-coordinator was got through interview. The information received was analyzed descriptively and simple descriptive

statistics involving percentages were employed. The data was then presented in a descriptive form.

The study revealed that in-service training for secondary schools in Nairobi Province is quite limited. Only 53.4% of teachers have been able to attend in-service training. The study also revealed that among the challenges or constraints hindering implementation of in-service training are lack of funds, time, poor management and poor co-ordination. This study concluded that the teachers are in need of in-service and the MOEST and individual schools should be more serious in addressing the issue of in-service amongst the secondary school teachers.

The researcher suggests that KESI should be made a body corporate to co-ordinate in-service of all cadres of education officers and teachers. The INSET unit in the Ministry should be mandated to operate so as to be in a position to co-ordinate, monitor and evaluate the work carried out by all INSET providers.

Further Research should be carried out to cover a wider area and a larger sample in order to determine the constraints hindering effective provision of in-service training to secondary school teachers. A needs analysis should also be done to establish areas of emphasis when providing in-service training.

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## ABBREVIATIONS

CFBT:	Centre for British Teachers
CIDA:	Canadian International Development Agency
CISRET:	Centre for In-service Religious Education Teachers
CREATE:	Christian Religious Education Awareness for Teachers
DFID:	Department For International Development
INSET:	In-Service Training
ILO:	International Labour Organization
JICA:	Japanese International Co-operation Agency
KIE:	Kenya Institute of Education
KNUT:	Kenya National Union of Teachers
KSSHA:	Kenya Secondary School Heads Association
LEA:	Local Education Authority
MOEST:	Ministry of Education Science and Technology
NZLER:	New Zealand Council for Educational Research
PIS:	Provincial Inspector of Schools
PRISM:	Primary School Management
RNE:	Republic of Netherlands
SBI:	School Based In-service
SELP:	Secondary English Language Project
SMASSE:	Strengthening of Mathematics and Sciences in Secondary Schools
SPRED:	Strengthening Primary Education
STEPS:	Strengthening Primary and Secondary Education
SPSS:	Statistical Package for the Social Science
SUPKEM:	Supreme Council for Kenya Muslims
TACs:	Teachers Advisory Centres
TOTs:	Training of Trainers
UNESCO:	United Nations Educational, Scientific and Cultural Organization

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 BACKGROUND TO THE STUDY**

According to Oluoch (2002) education is 'the process of acquiring and developing desired knowledge, skills and attitudes. The word process brings in the idea that education is a continuous activity that never ends. The word develop also shows that acquiring knowledge, skills and attitudes is not for once but the acquisition of more and more knowledge, skills and attitudes is necessary so as to deepen and widen what has already been acquired.

It is against this definition of education that the issue of teacher in-service training is looked at. That the education of the teacher does not end in the training but has to be continuous even after the teacher graduates and enters into the teaching service.

Writing in support of staff development, Byer (1970) says that since people are the greatest potential asset to any organisation, the development of people and the creation of organisational conditions for full utilisation of their developed talents should be of the highest priority and concern to the governing body and the top management of any organisation. Therefore, the

development of the human resources assumes that the process is continuous and there is always room for improvement. It also assumes that circumstances change and hence the need to cope with the changes.

The introduction of formal schooling brought in the idea of training teachers. In the western countries of Europe, the in servicing of teachers was recognised as fundamental in enhancing teaching and learning. Teachers like all other workers have the need, right and obligation to seek and undertake further study.

In many developing countries, in-service training systems were introduced to retrain or upgrade teachers who were hastily recruited during the period of rapid expansion. This was particularly noticed after the Second World War whereby teachers were hired to fill in the gaps of those who had perished during the war.

In Britain, in servicing of teachers picked momentum after the Mcnair report of 1944 (Board of education 1944). At this time in-service or refresher courses as they were referred was offered by the universities, training colleges and teacher's centres. In 1972, the James report recommended that teachers should attend regular in-service education and training through a programme of leave. It also recommended for the appointment of professional tutors or co-ordinators to be in charge of such programmes. The Local Education authorities (LEAS) provide in-service training. Individual schools also offer school based in-service courses to their staff members. Schools are supposed to

draw yearly programmes on the in-service courses offered by the school or provided outside the school.

In most of the industrialized countries, in-service training is compulsory. In Finland, teachers are required to devote three days in a year to in-service training. In New Zealand, in-service teacher education is the responsibility of the Board of trustees. The Boards have an operations grant, which includes the professional development of their teachers. In addition, the Ministry of Education directly funds the provision of some professional development and in-service training opportunities.

Although in-servicing of teachers the world over has been in place since 1940s, it however began to pick momentum in the 1980s. The field has been of low status not only among teachers and trainers but also those engaged in Research. Robert Briges (1993). Williams (1991) also described INSET as a Cinderella topic which has been largely unrehearsed, being more the subject for recommendation and pragmatic action than the target for incremental and large scale heavily funded studies.

In Kenya, teacher education can be traced way back to 1909 when the Fraser report established the department of education. In 1919, the education commission recommended the establishment of Teacher training colleges by each school. Phelps Stokes commission of 1924 urged the government to address the issue of training teachers. The 1932 education ordinance talked about the quality of instructions and specified the period of formal teacher training. Between 1935-37, there was reorganisation of teacher education whereby certain centres



could concentrate on the training of teachers. One of the effects of the 2<sup>nd</sup> world war was demand for education and hence demands for teachers and this led to the opening of Kagumo teachers college in 1944. With the attainment of independence education was given priority and hence the need to train teachers for all levels of education.

While presenting a paper, on policies for teacher education Mbiti (1972) said that, Kenya had to cope with tremendous expansion of education at all levels. He observed that quantitative educational opportunities pose qualitative problems as well as economic ones. It was therefore important to in-service teachers for the purpose of maintaining quality assurance. As a result, the concept of Teachers Advisory Centres (TACs) was adopted in 1970 as a way of updating serving primary teachers without taking them away from their jobs at a minimum cost. The role of TACs is to organise in-service courses for teachers through lectures, seminars, workshops, films and exhibitions as well as assisting teachers produce their own teaching materials.

The report of the National Committee on Educational Objectives and Policies (The Gachathi Report, Republic of Kenya, 1976) emphasised the need for lifelong continuing education to all Kenyans. This was emphasised again on the master plan for education and training (MpeT 1994) as well the totally integrated quality education and training (Koech Report 1999). These reports saw a need for those already trained are given a chance to continue with learning and training.

The Education Act (Revised 1980) gives the mandate of maintaining standards in schools to the Inspectorate. As such, the inspectorate's mission of establishing, maintaining and improving educational standards can be achieved in one way through in-serving teachers. Indeed one of the roles of the inspectors is 'assisting the Quality development Service with the design of in-service training programmes for teachers': (MOEST' 2000). The other organ, which should provide in-service to teachers, is Kenya Education Staff Institute (KESI). KESI was established in 1981, and charged with responsibility of developing managerial capacity within the Ministries of Basic and Higher Education. (MOEST 1999).

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Kaeley (1976) has carried out relevant research in Kenya on staff development through the descriptive study of the in-service training of unqualified primary school teachers in modern mathematics in Kenya. (1973-1974). Odede (1982) also looked at the Role of the Teachers Advisory Centres in the qualitative improvement of teacher Education in Kenya. She says that the concept of life long Education supports the fact that a changing World required constant review of content and approach in patterns and styles of Education.

A report on national workshop in Mombasa Kenya of 9<sup>th</sup> – 16<sup>th</sup> February 1992 by Bali and Mutunga titled 'towards Academic and professional excellence in higher education' it looked at the need to enhance professional skills at Kenyatta University. During this workshop, it was noted that the primary purpose of staff

development in a university context is to enhance professional excellence and efficiency in teaching and research.

Barbara Matiru (1989) in a report on staff development in higher education at Moi University looked at problems encountered during teaching and learning hence the need for in-serving.

## **1.2 Problem Statement**

The rapid expansion of Teacher Training Colleges and Universities has seen an influx of qualified teachers into the Kenyan market, (Republic of Kenya, 1995). The issue in Kenya is no longer numbers but the quality of teachers being trained. The cut throat competition to join especially public universities require that secondary school students are well prepared to pass in their national examinations. During the form one intake, there is always the joy of being selected to the most prestigious secondary schools in the land where quality education is offered. This explains the need to train and retrain teachers to be in a position to cope with an enlightened clientele.

To ensure that teachers are adequately prepared to work effectively, then their professional development has to be catered for. The Ministry of Education Science and Technology has been offering in-service training to its teachers. It is however noted that the beneficiaries of these training is mostly the Head teachers of primary and secondary schools through the KESI courses. With Aid from Department fund for International Department (DFID) through Centre for British Teachers (CfBT) primary school head teachers were trained through the Primary School Management. (PRISM) Project. Currently under

Strengthening Primary Education (SPRED III) the inset section is offering school-based teachers development programme (SbTD). This is an in-service course for primary school teachers whose focus is to improve the quality of teaching and learning through in-servicing of teachers. The main aim of the course is to develop teachers who reflect on their teaching and can respond to children's needs and support their learning and at the same time improve teaching and learning in subjects that record poor performance in the Kenya certificate of primary education examination. Daily Nation (July 9 2001). The programme targets to train 50,000 teachers by June 2003.

Primary school teachers also benefit from the in-service they acquire from the Teachers Advisory Centres. In fact, TAC Tutors were to be trained as trainers at Kagumo and Kigari Colleges to enable them train the teachers at a school level. Daily Nation (9.7.2001). The Aga Khan Foundation has embarked on in-servicing primary school teachers of English language to enhance their teaching. The programme started in Mombasa and is now taking place in Nairobi Province. Among the secondary school teachers, the in-service programme in place is the JICA funded Strengthening of Mathematics and Science in Secondary Schools (SMASSE). It has so far been able to train teachers from nine districts. The Secondary English language project (SELP) took place from 1989 to 1992 and there was no follow up on its impact. The subject inspectors who should organise for in-service of subject teachers have not done so due to lack of resources and overlap of other activities.

The Kenya Secondary School Examination results of the last four years from 1999, to 2002 indicate that only 55 out of 107 schools scored a mean grade of C- or mean score of 4.5 and above. Indeed 43 schools registered negative deviation in the year 2002 results amongst them 19 were Public Secondary Schools. (Appendix VIII). This scenario shows a need for in-service training to help address the problem of poor results in some of the schools and yet there are trained teachers in all the schools.

### **1.3 Purpose Of Study**

The purpose of the study was to establish the difficulties encountered in in-servicing of secondary school teachers in Nairobi Province, by the Ministry of Education, Science and Technology, the teachers and the school managers. The study was also to try to establish the various forms of in-service training in place nationally and at the school level.

### **1.4 Objectives Of The Study**

The objectives of the study were to: -

- a. Establish the government policy on in-service programmes in schools.
- b. Establish the in-service programmes already in place and being undertaken by the Ministry of Education Science and Technology.
- c. Identify different modalities of offering in-service training to teachers by different institutions.
- d. Identify organisations offering in-service training or funding such programmes

- e. Identify causes of schools not getting involved in in-service training of their teachers

## **1.5 Research Questions**

The following research questions guided the researcher in order to achieve the above stated objectives.

- a. What is the government policy on staff development?
- b. What in-service courses offered by the Ministry of Education, Science and Technology are in place for the secondary school teachers
- c. What incentives do teachers get to participate in in-service training?
- d. How is in-service training planned and co-ordinated between the MOEST and the schools?
- e. How much money per year is allocated for in-service training by the MOEST and what major constraints are faced in the implementation of in-service courses.
- f. Who sponsors and provides in-service training for secondary schools teachers?

## **1.6 Significance Of The Study**

The study may be useful to the Ministry of Education Science and Technology in that, it will identify problems and suggest possible solutions to enhance in-service training to all teachers. The study may also be beneficial to all bodies involved in providing in-service training. They will be able to identify areas lacking in the provision of in-service training and probably sponsor programmes in these areas. The school managers may benefit by identifying inset providers whom they could use for school based in-service training.

### **1.7 Limitations Of Study**

Some of the limitations of the study would be non-response from different schools. Schools that have not offered any chances for their teachers to attend in-service courses may not respond for fear of victimisation. Teachers may also not respond for fear of being branded dormant and archaic if they have not attended any courses. It would also be difficult to get appointments with targeted government officials.

### **1.8 Delimitation Of Study**

The study focused on establishing the challenges facing in-service training in the public secondary schools in Nairobi Province.

### **1.9 Basic Assumptions**

The assumptions underlying the study were: -

1. In-service training contributes to good performance in schools.
2. School managers do not support in-service training.
3. In-service training motivates teachers to better performance.

### **1.10 Definition Of Significant Terms**

Continuing education. - usually refers to education of adult learners. In this context, it is education acquired by those already learned and at all times.

In-service education and training - consist of formal long and short courses as well as less scattered and informal learning experiences.

Staff development - the term means, ways by which a worker makes his work better and hence more effective and efficient. It is a process whereby teachers/workers become more professional.

### **1.11 Organisation of the Study**

The study is organised into five (5) chapters. The first chapter consist of the background to the study, the statement of the problem, purpose of study, objectives of study, research questions, significance of study, limitations of study, delimitation of study, the basic assumptions definition of the important terms and the organisation of the study.

The second chapter is the literature review. It looks at the definition of in-service, in-service methods and resources required, the purpose of in-service, arguments against in-service training, causes of failure of in-service training, process of in-servicing as well as providers of in-service in Kenya today.

The third chapter presents the research methodology. This includes the identification of the research design that was used during the study. Also discussed is the population targeted, sample and sampling procedure. In the same chapter, research instruments, data collection procedures and data analysis techniques are identified and discussed.



The fourth chapter presents the findings on the challenges facing in-service training in secondary schools of Nairobi Province.

The fifth and last chapter presents the summary, conclusions, and recommendations

# CHAPTER TWO

## 2.0 LITERATURE REVIEW

In this chapter, literature related to the problem is reviewed under the following headings: Definition of in-service, the purpose of in-service, methods of in-service, resources of training, causes of failure of in-service, arguments against in-service training, process of in-servicing, in-service training cycle and in-service training providers.

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### 2.1 Definition of In-Service

Quoting from Roland Morant, Dean (1991) says that in-service is the education intended to support and assist the professional development that teachers ought to experience throughout their working lives. she also says that it is a process whereby teachers become more professional.

Pauline Perry also described school focused in-service as all strategies employed by trainers and teachers in partnership to direct teaching programmes in such a way as to meet the identified needs to of a school and to raise the standards of teaching and learning in the classroom, Dean (1991). As such in-service is supposed to enhance the schools institutional needs and therefore educational needs. It should benefit serving teachers and therefore requires planning and proper management to enhance teaching and learning.

## 2.2 The Purpose of In-Servicing

Dean (1991) says that educational changes are rapid, the speed of change and the explosion of knowledge requires people to learn a fresh at intervals and throughout their lives.

Watkins (1973) highlights that societies also change. The society is enlightened and will demand for accountability even in the school system. Teachers are therefore expected to keep pace with societal needs and aspirations. He goes further to say that, even teacher's change. Whereas some teachers take teaching as a job, others take it as a vocation. The dissatisfied teachers will take the earliest opportunity to pull out of the job. It is therefore necessary to ensure teachers grow in their professions to boost their morale and take their job positively. In this connection, the mere avoidance of staleness is one of the great justifications in in-service training.

Watkins also says that schools change, as they become complex they require new skills. The expansion of a school, computerisation will call for specialised skills to cope with the changes. He continues to say that with experience, teachers develop special interests in special field for example interest in handicapped children, school library work or counselling. To cope with these special interest teachers required special skill and hence the need for in-service training.

Changes in the curriculum, like it happened in the country beginning January 2003 call for in-service training to familiarise the teachers with the changes. Policy changes like the passing

of the children's Act in 2002 requires in-service training for better handling of the students according to the law.

Through in-service training the communication gap is easily bridged as policy is explained and disturbing questions are answered. Teachers also improve their teaching skills, understanding and implementing the curriculum as well as their own personal growth as they gain confidence and appreciate their work as teachers. Therefore, the ever increasing enrolments in primary and secondary schools, the constantly changing curriculum and the new social role that the teacher must play in the socio-economic development of the communities in which he operates suggest that several strategies for teacher training must be explored to Meet these demands. Sid Pandey (1982).

### **2.3 Methods of In-Servicing.**

One of the methods mostly used in the developed countries is the school based in-service (SBI)(Yoger 1996). School based In-service was initiated in the mid 1970s in the United States of America, Canada, United Kingdom, Australia and New Zealand. Japan and Israel adopted SBI in 1992 and 1996 respectively. Towards mid 1990s SBI policies were adopted by several African countries such as Lesotho 1994, Ghana and Swaziland 1996.

In New Zealand a system of 'teacher – only days' is in place in some schools. 'These days are used for general planning or for teacher education. Some individual teachers also attend short courses during school time. Some teachers are also released for longer periods for degree or post graduate University study.

Some teachers also enrol in distance education courses to upgrade their qualification'. (NZCER papers 1997).

In Kenya, in-service training is provided through Teachers Advisory Centres (TACs). Other methods include the use of consultants, professional associations which include conference and visitations, seminars, workshops, symposiums, role playing, critical incident method, brainstorming and simulation, Byers (1970). The training can take place within the schools or outside the school. Byer also suggests employee development methods as home study course, job instruction training, coaching, and group training.

#### **2.4. Resources of Training**

The most important resource is human resource. Byers (1970) says that in in-servicing, the institution should rely on internal resources. He further says that in selecting a trainer the single most important factor is to select one who is likely to motivate the trainees towards behaviour change. External resources may be required when the organisation's internal resources are not available or when the necessary skills or knowledge do not exist in the organisation or when it is not feasible to use internal resources. Hence, the institution can seek trainers from Universities and colleges and through correspondence. Trainers can also be consultants, professional associations and private industry. Funding of the training is also crucial; money can be sought from civic organisations, non-governmental organisations and church organisations.

## **2.5 Causes of Failure of In-Service**

Higginson (1996) while presenting a paper on teachers role and global change says that some of the typical cause of failure of in-service include, the expense of running residential courses which severely curtails the number that can be held, the context of the training being divorced from the context of schools and their problems, the lumping together of teachers with mixed and incompatible training, non involvement of colleagues to whom teachers may be accountable (e.g. not involving the school management) and the fact that teachers posted in isolated areas frequently miss out on training due to lack of communication on time or they are simply forgotten. Organisers of training may only decide to hold the training in convenient areas.

## **2.6 Arguments Against In-Service Training**

Byers (1970) says that some of the popular arguments against in-service are that, training or development time is 'non-productive'. In his book, he asks the question whether employee development is worth the effort. Quoting John Stuart Mill (1970), Byer says that the disease which afflicts bureaucratic governments and which they usually die of is routine or complacency or refusal to change.

Another argument is that training takes time and money that could be spent in actual production. This may be seen in a school situation where teachers will be seen as wasting time and money to attend training seminars other than be in class teaching and the money used to buy the learning resources. There is also, the argument that, the best people who could profit most cannot be spared for training. Again the best

teachers may be denied a chance for in-service since they are already good and the chance is given only to the weak teachers. It is also argued that training cannot really prove that it makes enough difference to justify the cost. This may be in comparison to schools that continue to perform well even though teachers from these schools do not attend in-service training.

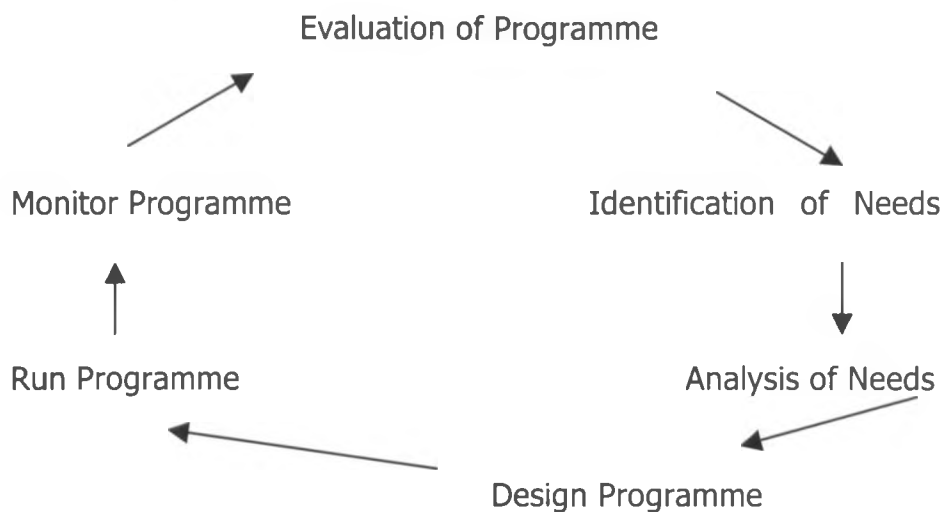
## **2.7 Process of In-Servicing**

Fergus O'sullivan (1988) says that schools should keep staff updated on INSET provision through staff development notice boards, keeping records of staff interests, featuring staff development features in school reports, receiving feedback from those who have attended courses and issues of in-service should feature prominently during staff meetings.

O'Sullivan comes up with staff development cycle, which can be used, by schools to determine their situation what they want to achieve, how to achieve it and how to know when they achieve their goals.

In the cycle described by the diagram overleaf the needs of the teachers, have to be identified and analysed to enable the provider to design the programme, which will address the identified needs. After laying down the design, the programme is then implemented. To ensure that the programme is achieving its objectives there is a need to monitor the programme during implementation and evaluate the success of the programme.

## IN-SERVICE TRAINING CYCLE



**Source Fergus O'Sullivan (1988)**

### 2.8. In-Service Training Providers

According to a national case study by KESI (1993) the providers of in-service training are MOEST through KESI, which trains Education administrators and Education officers. The Kenya Institute of Education (K.I.E.) in-service teachers and provides materials from education media service. The Kenya National Examination Council (KNEC) involves teachers in new writers workshops, trains examiners, moderators and supervisors of National Examinations The Kenya National Union of Teachers (KNUT) has programmes, which offer valuable continuing education in population and family planning, leadership training, the teacher and curriculum implementation, education meetings and conferences and study circles.

Teacher's co-operatives also train on savings and proper use of resources. Religious organisation such as centre for in-service religious education teachers (CISRET) for catholic teachers, Christian religious education awareness for teachers (CREATE)

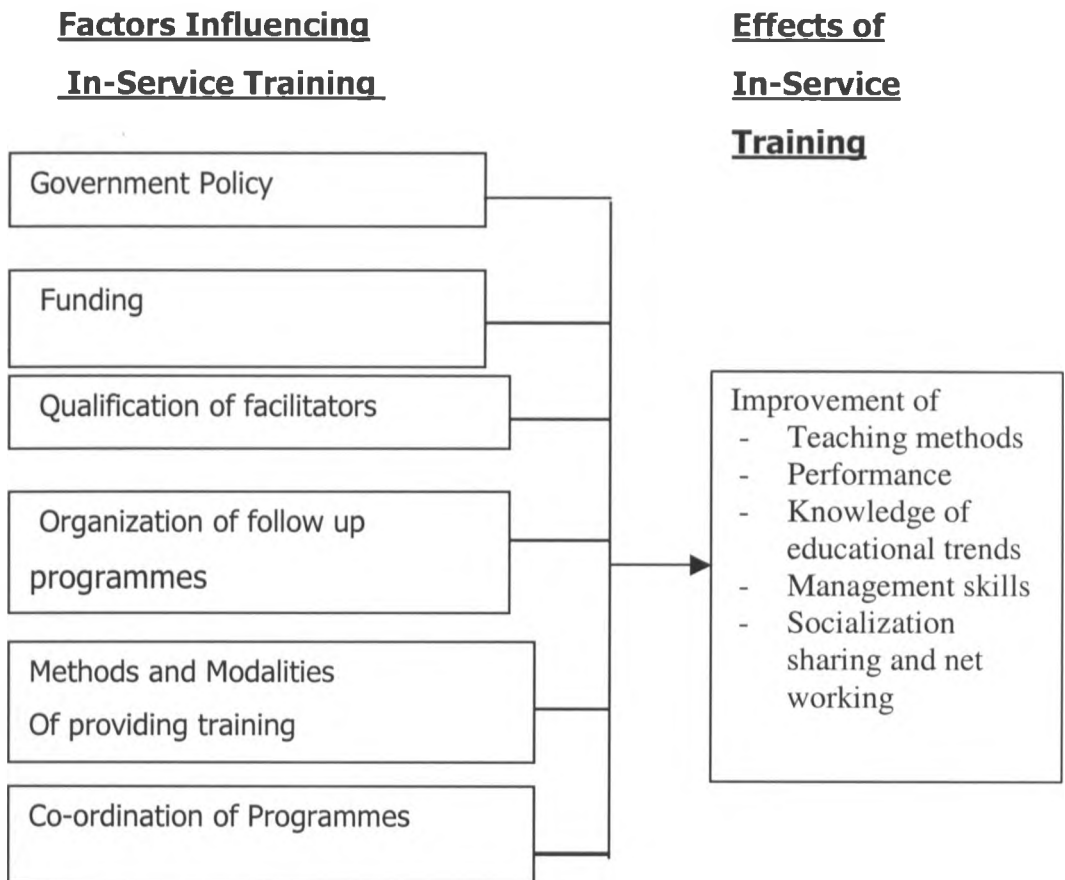


for protestant churches, in-service programmes for primary school teachers of Islamic religious, education, and in-service course for teachers of Hindu Religious education (HRE).

Teachers associations like the Kenya Secondary Schools Heads Association (KSSHA) also in-service teachers particularly during their district, provincial and national meetings. Family planning association of Kenya train teachers to be used as trainers to reach people in rural areas. St. Johns ambulance trains teachers on 1<sup>st</sup> aid skills; the Red Cross Society of Kenya is also involved in training teachers. The Swedish Development Authority as well as United Nations Educational Scientific and Cultural organization (UNESCO) continuously trains teachers on various aspects of their job demands. In co-operation with ILO, UNESCO has been involved in training programmes for teachers as well as in research activities that were designated to contribute to the improvement of teacher Education status and conditions of service.

## **2.9 Conceptual Framework**

The study took into consideration the need for continuing education amongst the teachers. This education could be achieved through continuous in-service training. The Diagram overleaf describes some of the factors that could influence in-service training and possible outcomes of the training.



From the above diagram, the Government policy on the provision of in-service training is crucial in ensuring that teachers are adequately in-serviced. Availability of funds, qualification of facilitators will also ensure quality service delivery of the courses offered. It is also of essence to keep a follow up of the courses. This will enable the providers and the receivers of the training to monitor and evaluate what has been learnt and help in assessing other needs which could be addressed in future training.

The methods and modalities adapted would ensure that most of the secondary school teachers are targeted for training. The modalities in relation to the time of training and the schedules would also cater for a

wider group of teachers as well as catering for different subject areas. Effective co-ordination of the in-service programmes would also enable inclusion of more teachers in the training.

It is therefore assumed that if in-service training is well programmed it would lead to a general improvement of teaching and performance by the students. Teachers would also keep abreast with changes in the education sector and be able to cope with the changes.

# CHAPTER THREE

## RESEARCH METHODOLOGY

### 3.0 Introduction

This chapter explains the design and methodology of study, the area of study, sample selected, the size of the sample, Research Instruments, methods of data collection and data analysis techniques.

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### 3.1 Research Design

The study fits in descriptive research and it entailed to establish the problems encountered in offering in-service training amongst secondary school teachers in Nairobi Province. According to Mugenda, (1999), descriptive research helps the researcher determine and report the way things are. Also, this form of study attempts to describe possible behaviours, attitudes values, and characteristics of the study.

### 3.2 Study Area

The study was conducted in Nairobi Province. Being the capital city and with adequate infrastructure and close vicinity to Education administrators, Nairobi was chosen to give an insight into how much in-service training is given to teachers and the difficulties encountered in providing these services.

The Province had 107 Secondary Schools both private and public. Out of these 47 are Public Schools. The schools were to be found in the eight Educational Divisions with some divisions

having as many as 11 schools and others having 3 and even less schools.

Nairobi was chosen with an expectation that most of INSET providers were based in the capital city and therefore could have provided in-service training to the teachers.

### **3.3 Target Population**

There were 1,817 secondary school teachers in Nairobi Province. The target population consisted of all the secondary school teachers in the 47 public secondary schools in Nairobi. (Appendix V)

The subjects of the study also included INSET co-ordinator, at MOEST Headquarters the Provincial Inspector of schools and the Director KESI. The INSET section was targeted since it was charged with offering in-service training to teachers all over the republic; the Provincial Inspector of Schools represented the chief inspector of schools in the Province and was in charge of all in-service programmes in the Province. The teachers were the recipients of the in-service training whereas the Director KESI was in charge of training of education managers and officers.

### **3.4 Sampling Procedure**

The researcher sampled teachers from 15 out of the 47 public secondary schools. Appendix (VIII) Mulusa (1988) quoting Krejaie and Morgan identify a population to be small if it has a hundred or fewer subjects. When the population is ten the sample should be ten when the population is 1800 the sample

should be 317. From the 15 schools the sampled population was 317 teachers' approximately 21 teachers from each school.

The researcher used the stratified sampling technique in order to represent teachers from all the eight divisions of Nairobi Province. The schools were distributed as follows: -

<b><u>Division</u></b>	<b><u>Number of Schools</u></b>	<b><u>No. Sampled</u></b>
Langata	3	1
Starehe	11	3
Westlands	10	3
Dagoretti	6	2
Makadara	8	3
Embakasi	4	1
Kamukunji	1	1
Kasarani	4	1
<b>Total</b>	<b><u>47</u></b>	<b><u>15</u></b>

The divisions with 4 schools and below only one school was randomly sampled. Dagoretti Division with six (6) schools two schools were randomly sampled. Makadara Division with eight (8) schools three schools were randomly sampled. Starehe and Westlands divisions with eleven (11) and ten schools respectively, three (3) schools were randomly sampled.

### **3.5 Research Instruments**

The following Research Instruments were developed, validated and tested for effective collection of information

#### **(a) Questionnaire**

The major data collection procedure used in this study was questionnaire administered to 317 teachers from the fifteen secondary schools. A questionnaire was also administered to the Provincial Inspector of Schools.

Questionnaire is commonly used to obtain important information about the population Mugenda (1999). Mugenda (1999) also says that each item in the questionnaire is developed to address a specific objective, research question or hypothesis of study. As such, the questionnaire was based on the research questions.

The questionnaires had both structured and open ended questions. Open-ended questions permit a greater depth of response by allowing teachers and the provincial inspector of schools give their own opinions about the in-service programmes.

#### **(b) Interview Schedule**

Interviews were conducted to the Director KESI and the coordinator INSET Section at MOEST headquarters. Interviews provide in depth data and allow flexibility in questioning. The interviewer can also get more information by using probing questions, Mugenda (1999).

### **3.6 Pilot, Validity and Reliability**

The purpose of piloting in research is to check for ambiguity, confusion and poorly prepared items. According to Wiesma, (1995) through piloting deficiencies may be uncovered that were not apparent by simply reviewing the items.

Piloting was carried out in five schools before the actual data collection. The schools selected were not among those that took part in the study. Through the pilot exercise, the instrument was proved reliable as no errors were noticed. The questionnaire was then administered to the sampled schools. The questionnaire to the PIS was first given to an inspector of schools for possible detection of errors. The questionnaire was then administered to the PIS for responses.

The piloting was carried out to identify items that were inadequate and make necessary corrections, examine responses from the respondents and note any ambiguity in the questions for accuracy and contradiction. Piloting also helped to show whether the test items represented the content that the test was designed to measure. The instrument was therefore piloted in order to determine their validity as Gall M.D. and Borg W.R (1989) says 'validity is the degree to which a test measures what it purports to measures'. At the same time Gall and Borg, says that reliability is the level of internal consistency or stability over time of the measuring instruments. Therefore piloting was carried out to ensure that the instruments produced the same results even when offered twice to the same group of subjects.

### **3.7 Data Collection Procedures**

In preparation to go out and collect the information, the researcher sought authority from the Ministry of Education Science and Technology. A copy of the letter of authority was handed to the Provincial Director of Education and Provincial Commissioner. The researcher then proceeded to collect data by visiting the sampled schools and distributing the questionnaires



accordingly. The completed questionnaire was collected after completion.

The researcher personally conducted interviews with the Director, KESI and the Co-ordinator INSET Unit MOEST headquarters

### **3.8 Data Analysis**

After the field work, the data collected from the teachers questionnaire, the questionnaire by provincial inspector of schools and the interview conducted to the director KESI and INSET co-ordinator, the researcher read through the data and categorised the data into themes and patterns based on the research questions. The responses from the teachers were directly scanned from the questionnaire into a computer. The Statistical Package for the Social Sciences (SPSS) was used to analyse the Data.

S.P.S.S is a statistical Computer Package used for Data analysis. Data analysed using this software gives concrete information depending on the objective of the research. One also gets the actual meaning of the results. It is able to come up with table and graphs. On the other hand, the researcher analysed manually the Data collected through interviews to the Director KESI, and the Co-ordinator INSET Unit as well as the questionnaire conducted to the PIS Nairobi. Descriptive statistics was used with the SPSS software. Frequencies, percentages and graphs presentation was carried out using frequency tables and bar graphs.

The research questions addressed by the researcher were first to show whether teachers in Nairobi Province had attended any in-service courses while in their current stations. At the same time, the teachers had to indicate their rank in the schools as well as their qualifications. In their responses one hundred and forty eight (148) teachers responded based on the above as is described in the research findings.

On the in-service programmes put in place by the MOEST, fifty-four teachers responded on having knowledge of the existing programmes. On whether teachers get any kind of benefits, 150 of them responded on the importance of certificates and follow up programmes.

On the major constraints, hindering in-service training 150 responded giving different problems that hinder in-service training.

Other research questions on the government policy, planning and co-ordination and the funds available for in-service, were answered through analysing the responses from the interviews conducted to the Director KESI and the Co-ordinator INSET unit of MOEST as well the responses of the questionnaire conducted to the Provincial Inspector of Schools.

The analysed data was then interpreted and this was followed by writing of the report.

### **3.9 Summary**

Chapter three discussed the design and methodology used in the study. It described descriptive research method and gave reasons as to why it was chosen as the research design. In this chapter, effort was made to describe the target population, the sample and sampling procedure as well as the manner of collecting the data from the field.

# CHAPTER FOUR

## DATA ANALYSIS AND INTERPRETATION

### 4.0 Introduction

This was a descriptive research. The study targeted 317 teachers from 15 secondary schools in Nairobi Province. The study aimed at establishing challenges facing in-service training of secondary teachers in Nairobi Province. The analysis of data focused on the research questions that were formulated at the beginning of the study. Out of 317 Questionnaire, administered 227 were completed.

In this chapter, data was analysed, interpreted and presented. The content of this chapter was organised according to the seven research questions.

### 4.1 General Characteristics Of Teachers

This section examined major characteristics of teachers in the target population. Results from the teachers questionnaire as in Table I overleaf reveals that only 2.7% of teachers have M.Ed qualifications and above, 73.0% have attained B.Ed/PGDE.; 23.6% have Dip. Ed/S1 and only 0.7% are P1s.

**Table I: Professional Qualifications of Teachers**

<b>Qualification</b>	<b>Frequency</b>	<b>Percentage</b>
M.Ed and above	4	2.7
B.Ed/PGDE	108	73
S1/Diploma in Education	35	23.6
P1 and below	1	0.7
<b>Total</b>	<b>148</b>	<b>100.0</b>

From this data, it was observed that majority of the teachers in Nairobi secondary schools were B.ED/PGDE holders. They were followed by SI/Dip. Ed holders and only a very small minority had M.Ed and P1 qualifications. This concurs with the government employment policy, which emphasizes employment for graduate teachers to teach in secondary schools. At the same time, the S1 teachers were the first grade of teachers specifically trained to teach in secondary schools immediately after independence as a way of bridging the gap of inadequate staffing in secondary schools. The few teachers with P1 grade were mostly employed to teach special subjects like music and drawing and design. This information was important in order to establish the calibre of teachers posted in Nairobi Province.

#### **4.2 Position Of Respondents In The School**

From Table 2 overleaf it was established that only 0.7% of the respondent were head teachers, 4.1% were deputy head teachers, 20.9% were heads of departments, 12.8% subject heads and 61.5% were classroom teachers.

**Table 2: Respondents Position in School**

<b>Position</b>	<b>Frequency</b>	<b>Percentage</b>
Head teacher	1	0.7
Deputy Head teacher	6	4.1
Head of Department	31	20.9
Subject Head	19	12.8
Classroom teacher	91	61.5
<b>TOTAL</b>	<b>148</b>	<b>100.0</b>

This was so because as a policy requirement, each school must have only one head teacher whereas Heads of departments are usually about five. Subject heads are not established in all schools but mostly are found in the big schools. However, all other teachers are classroom teachers. It is to be noted that since there was no separate questionnaire for Head teachers, they tended to distribute the questionnaire to the teachers and therefore the Low responses from Head teachers.

### **4.3 Government Policy on Staff Development**

The information on Government policy on staff development was derived from interviews, with INSET co-ordinator and the questionnaire administered to PIS. The data was primarily qualitative and was transcribed and analysed as follows:

The co-coordinator of the INSET Unit emphasized that it is the primary purpose for the MOEST to develop In-service education and training as per the framework for in-service Education and training which was based on the Master Plan on Education and Training.

The Education Act also gives the mandate of providing in-service training to the MOEST through the inspectorate division of the Ministry. It is upon this that the INSET Unit was established for the purpose of improving efficiency and effectiveness in the Provision of Education and training, make Teaching and learning transactions be more learner centered through the development of regular focused in service courses for teachers and establish a training programme to include all cadre of key staff.

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The co-ordinator of the INSET UNIT emphasized that the Government appreciated the link between quality education and economic development of the country. It also acknowledges that increased access to schooling, improved equity of girls and boys and relevance of learning contribute to the improved quality of education. Therefore, the professional development of teachers is critical to achieve the MOEST recommendations. As such, the professional development will be provided in a systematic and co-ordinated way through the MOEST INSET unit. The unit is expected to work with the relevant departments within the MOEST and other stakeholders to develop national systems and structures for in-service training.

It is therefore the government policy to provide in-service training to the teachers, which is seen as part of enhancing economic development in the country and capacity building for its staff. The Inspectorate division of MOEST under which the INSET unit falls is supposed to provide and co-ordinate in-service training. As already noted, in-service training helps, teachers improve the teaching skills, understanding and implementing the curriculum as well as improving their own personal growth.

#### 4.4 Types of In-Service Programmes Offered

This study sought to determine the types of in-service programmes in place for the secondary school teachers. An in-depth interview with the Provincial Inspector of Schools who was selected as a key informant indicated that an in-service programme is in place for teachers in Nairobi Province. These in-service programmes were organised annually and per subject and hence they were in the form of subject panels.

The selection of teachers to attend in-service training was done at a school level. This could have some bias whereby some teachers may never be given a chance to attend INSET depending on their relationship with the school administration. As is to be noted from Table 3 below it shows that 53.4% of the teachers had attended in-service training whereas 46.6% had not attended any in-service training.

**Table 3: Teachers who have attended In-service Course**

<b>Attended course?</b>	<b>Frequency</b>	<b>Percentage</b>
YES	79	53.4
NO	69	46.6
<b>Total</b>	<b>148</b>	<b>100</b>

Table 4 overleaf indicates the number of courses attended, 25.3% had attended one course, by teachers 34.5% two courses, 14.9% had attended more than three courses whereas 25.3% had never attended any course. This explains the fact that may be the same teachers attended courses, whereas only 34.5% have been able to attend 2 in-service courses.



**Table 4: Number of In-service Courses Attended within last two Years**

<b>Courses attended</b>	<b>Frequency</b>	<b>Percentage</b>
One course	22	25.3
Two courses	30	34.5
Three courses	5	5.7
Over 3 courses	8	9.2
None	22	25.3
<b>Total</b>	<b>87</b>	<b>100</b>

From the table above, only 65 teachers had attended in-service courses in the last two years. The discrepancy between the number of teachers who attended in-service courses is seen because question 4(a) had asked whether teachers had attended any course since joining their current stations whereas question 4 (b) asked how many in-service courses the teachers attended in the last two years. This therefore means that more teachers had attended in-service courses within a longer period than the last two years.

The researcher established from the interview carried out with the co-ordinator INSET unit, that the in-service programmes in place are mostly organised for primary school teachers. Currently the INSET unit of MOEST is implementing the School Based Teacher Development project (SbTD). This is an in-service course for primary school teachers. It has been designed by the MOEST and funded by the British Department for International Development (DFID).

The objectives of the programme as was provided by the INSET Co-ordinator were: -

- To develop the ability of teachers to reflect on all aspects of teaching and learning
- To develop the understanding of teachers on the importance of involving children in their own learning.
- To enable teachers manage their classrooms and their assessment skills
- To assist teachers identify and give attention to children with special educational needs.
- To make teachers aware of emerging issues such as gender issues, in their daily interactions with the children.
- To enable teachers accommodate and implement change in their schools.

The co-ordinator INSET also informed the researcher that there was a plan of targeting head-teachers, deputy head-teachers and senior teachers and other stakeholders to enable them give support to teacher training on distance learning. There was also a plan to expand the subject range from the three key subjects namely Mathematics, English and Science to include guidance and counselling, alternative teaching methods and Kiswahili.

The free primary education programme put in place in January 2003 has called for in-service training. The school administration and management were being in-serviced to make them accommodate the changes of expanded classes, over age children and children with special needs.

Whereas the SbTD project targets Primary school teachers, the SMASSE project as already mentioned was targeting Maths and Science teachers in secondary schools. It was the only ongoing INSET programme in place catering for secondary school teachers. So far, it had covered 10 districts. However, this project funded by JICA was not under the co-ordinator of the INSET unit. It was organised by the subject inspectors and the JICA representatives.

### **Types of courses offered by KESI**

The Following are courses that KESI offered to secondary school teachers in the last one year - August 2002 – August 2003. These courses targeted the school administration as is demonstrated below. The classroom teacher was not covered by KESI courses.

<b>COURSES</b>	<b>VENUE</b>	<b>TIME</b>
1.Senior management course for principals	Kenya Methodist University (KEMU) Meru	Aug.2002-Dec.2002
2. Senior management course for principals	Mbale Hotel (Vihiga)	Aug.2002-Dec.2002
3. Induction course for Head teachers and deputies	Moi Forces Academy (Nairobi)	Aug.2002-Dec.2002
4. Induction course for Heads of departments and guidance and counselling	Garissa T.T.C	Aug.2002-Dec.2002
5. Induction course for deputy head and heads of departments	Narok T.T.C	Aug.2002-Dec.2002
6. Financial management for principals	Poly View Hotel (Kisumu)	Jan 2003–Aug 2002

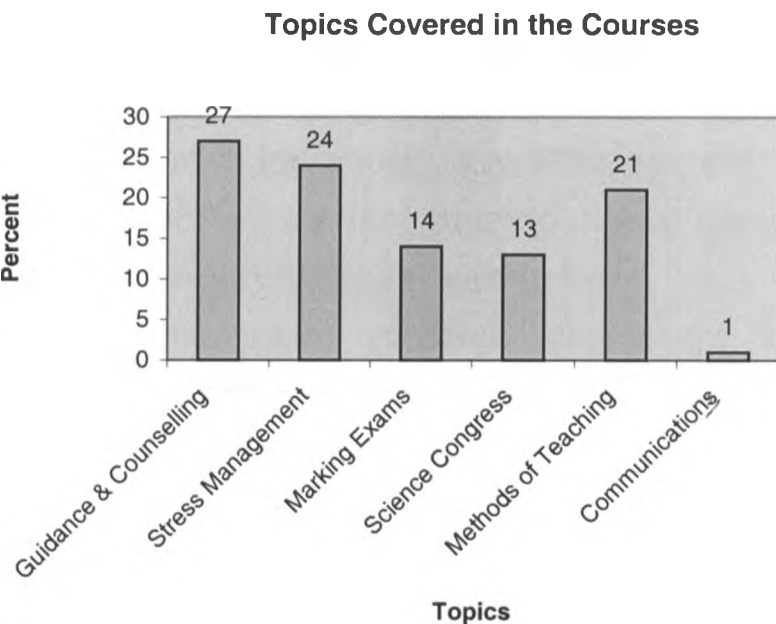
7. Senior management course for principals	Eldoret polytechnic	Jan. 2003 – Aug. 2003
8. Induction course for deputies and H.O.D.s	Lugulu Girls schools	Jan. 2003 – Aug. 2003
9. Induction course for Head teachers.	Migori T.T.C	Jan. 2003 – Aug. 2003

Source – Director, KESI

#### 4.4 Topics Covered During In-Service Programmes

The figure below shows topics covered in the courses attended.

**Figure 1**



According to Figure, I above 27% of teachers had attended guidance and counselling courses, 24% stress management, 14% examination marking courses, 13% sciences congress courses, 21% teaching methods and 1% communication courses. From responses given by the teachers the programmes which they had attended include guidance and counselling,

stress management, examination marking, science congress, teaching methods and communications.

These results could be attributed to the following:

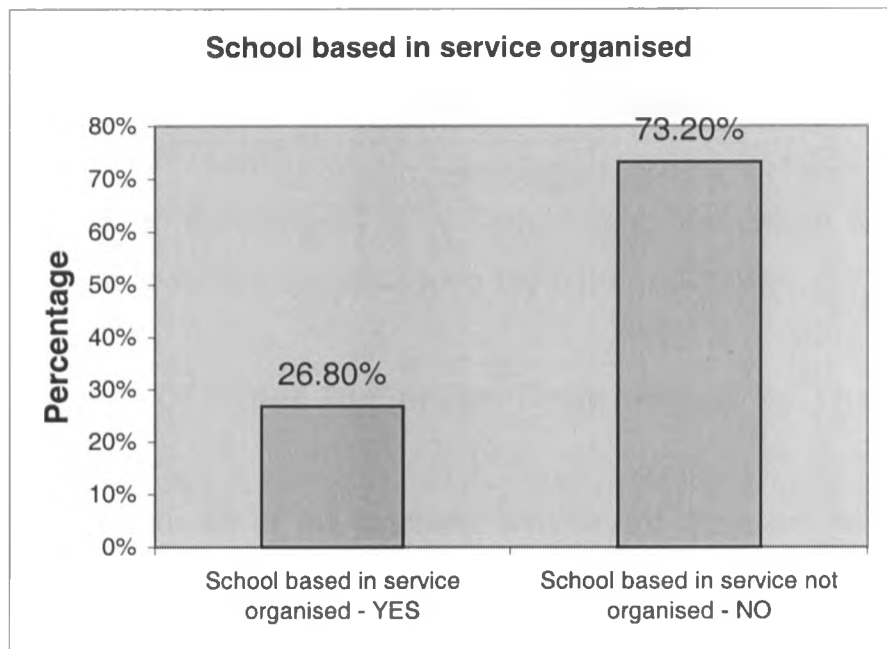
- Due to indiscipline in schools guidance and counselling was emphasised and hence the need to give basic counselling skills to teachers.
- Most teachers were also KNEC examiners. Before undertaking, marking of final examinations each examiner is trained on the marking skills.
- Most Science teachers were trained under Smasse as well as the training they received to enable them help students to prepare for science projects.
- Methods of teaching took only 21% and this could be because of the assumption that once trained a teacher does not require any variations in methodology.
- Both Communication and stress management take 25%, which result to poor communication in schools as well as indiscipline amongst stressed students and teachers.
- Courses offered by the MOEST through its training institution KESI mostly focused on head teachers, deputy head-teachers and heads of departments.

#### **4.5 School Based In-Service**

School based in-service programmes would be of great importance in that each institution would be in a position to know and identify its needs and hence focus on the necessary courses. It is also possible to use the teachers in a particular school as facilitators saving on time and money. From the teachers responses on the availability of school based in-service, the figure below shows that only about 26.8% of schools offer

school based in-service. This is due to over reliance on the MOEST to provide in-service training. It would also be due to lack of time and information on school based in-service training.

**Figure 2**



While answering the question on how often school based in-service programmes are organised the teachers indicated that training took place at different times of the school year as is described by the table overleaf. The table shows that 24.1% of in-service training takes place once a term, 19.0% twice in a year and 20.7% once a year. 36.2% of the courses take place during school holidays.

**Table 5: Frequency of School based In-service**

<b>Frequency of INSET</b>	<b>Frequency</b>	<b>Percent</b>
Valid Once a term	14	24.1
Twice in a Year	11	19.0
Every school Holiday	21	36.2
Once a year	12	20.7
Total	58	100.0
<b>Total</b>	<b>150</b>	<b>100.0</b>

In majority of the schools, it is found more convenient to organise the in-service courses during the school holidays.

#### **4.6 Knowledge Of Other In-Service Programmes By The Teachers**

From the responses of the teachers, majority of them are not aware of any INSET programmes organised by Ministry of Education in place. This means that most teachers have never been involved in any in-service training.

Table 7 overleaf indicates that teachers are more familiar with special education courses (25.9%), language courses (40.7%), mathematics courses (7.4%) and Smasse (25.9%).

**Table 6: Other Known in service Programmes**

<b>Other known Programmes</b>	<b>Frequency</b>	<b>Percent</b>
Special Education	14	<b>25.9</b>
Language Courses	22	<b>40.7</b>
Mathematics Courses	4	<b>7.4</b>
Smasse	14	<b>25.9</b>
<b>Total</b>	<b>54</b>	<b>100</b>

From the 227 respondents on this question it shows that only 54 teachers were aware of other in-service programmes in place.

#### **4.7 Programmes Already In Place**

According to responses from INSET co-ordinator, P1S and Director KESI, the following were the programmes in place for secondary school teachers.

1. The JICA funded SMASSE project, which aimed at improving the teaching of mathematics and the attitudes of students towards maths and science subjects.
2. Subject panel workshops which were funded by KSSHA were organised by the subject inspectors in the Province and encouraged most subject teachers to attend and covered various topics from syllabus coverage to difficult topics as well as examinations.
3. C.R.E symposiums were held through the C.R.E subject panel under the chairmanship of one of the teachers. They mostly concentrated on the mode of tackling examination questions.
4. The Provincial office had organised some guidance and counselling seminars, which covered such areas as drug and substance abuse and basic counselling skills.



#### 4.8 Benefits Of In-Service Training To Teachers

In trying to establish benefits teachers get while taking part in in-service training, the teachers expressed their opinion as is presented in table 7. From this analysis, 88.7% expressed the importance of getting participation certificates and only 11.3 % did not see the importance of such a certificate.

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**Table 7: Certificate of Participation**

<b>Certificate of participation</b>	<b>Frequency</b>	<b>Percent</b>
Important	94	88.7
Not Important	12	11.3
<b>Total</b>	<b>106</b>	<b>100</b>

The acquisition of an added certificate is of benefit to the majority of the respondents.

Therefore, a certificate at the end of the course is important. This was expressed through table 8 below which shows that 33.7% felt the certificate of participation motivated them, 48.1% said that they help build up their curriculum vitae (CV), 11.5% felt a certificate enhances better their opportunities whereas only 6.7% felt that a certificate would lead to a promotion.

**Table 8: Importance of Certificate of participation**

<b>Importance of certificate</b>	<b>Frequency</b>	<b>Percent</b>
Valid Motivating	35	33.7
Develop Curriculum Vitae (CV)	50	48.1
Enhance better opportunities	12	11.5
Promotions	7	6.7
<b>Total</b>	<b>104</b>	<b>100</b>

From the interview with co-ordinator INSET unit, certificates of participation will be of greater use once accreditation is put in place. This is because each certificate will be awarded grades and these grades will later be used for the promotion of teachers.

The ministry has already adopted the teachers' promotion course, which replaced promotion on merit for teachers of lower grades up to Approved Teacher Status (ATS) III. To be admitted into the course a teacher must produce certificates of participation in various subject panels and workshops.

Other ways that can be used as inducements to teachers include letter of recommendations, further training to teacher trainers, out of pocket allowance for teachers who may attend courses in their own districts but the venue is far a way from their homes. This is because there is no allowance for any officer working in their duty station. Hence teachers who commute from far but still in their home districts get discouraged because they do not receive any allowance to enable them stay over in the training venue or look for alternative accommodation to enable access the training venue easily.

According to the responses given by the PIS, in-service training enhances the teachers' performance as they improve their teaching methods. At the same time when the morale is boosted teachers work harder and have interest in their work. Training venues also offer teachers forums for socialising as well as discussing their problems. After training, the teachers can network and this enables them to keep in touch with the

changes affecting their profession. Indeed, it has been established that because of enhanced in-service programmes based on subject panel workshops, Nairobi secondary schools mean score is higher than before, whereas schools that do not take part in the programmes tend to perform at the same level.

Courses offered by KESI are of benefit to school administrators as was reported by the director. Induction courses in educational management try to further understanding and appreciation of the organisational context of education management, acquire knowledge, skills, attitudes and capacity to manage human, material, financial and time resources in an educational establishment. They also help the administrator apply appropriate principles and practices of educational management at the place of work as well as to understand, appreciate, expand and implement government policies in education and training. Financial management courses assist the head teachers to keep books of accounts and generally help head-teachers have proper management of financial resources.

#### **4.9 Follow Up Programmes**

In their responses, teachers expressed their view that follow up programmes were important to keep abreast with what had been covered and its effects. However, according to table 10.

- 73.5.7% of teachers had not had any follow up after any one given training.
- 18.4% of the teachers had follow up programmes for courses attended.

**Table 9 Follow-up Programmes (Post Course)**

<b>Teachers who have experienced follow ups</b>		<b>Frequency</b>	<b>Percent</b>
Valid	YES	18	20
	NO	72	80
<b>Total</b>		<b>90</b>	<b>100</b>

The teachers viewed follow up as important. The reasons for importance of follow-ups as expressed by the teachers as shown on Table 11 was that: -

1. Follow-ups help to ensure that what has been taught/covered is implemented. They also help increase understanding, they bring about improvements in work performance. Follow-ups also ensure consistency as well as can act as a means of appraising teachers.

**Table 10 importances of follow-ups**

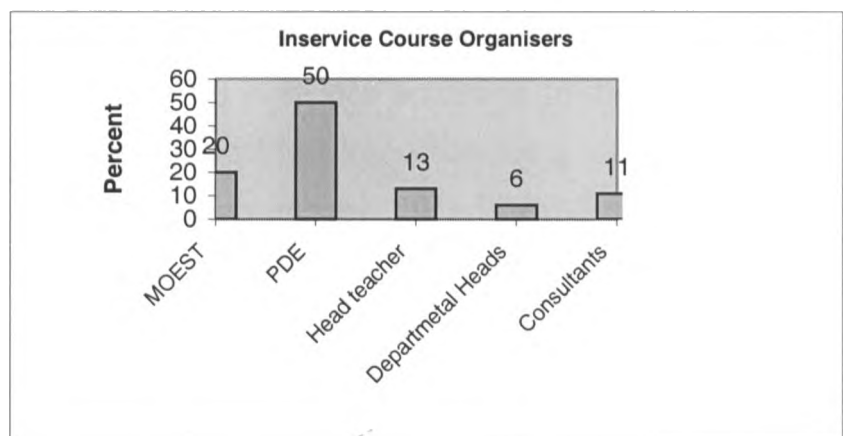
<b>Importance of follow up to respondents</b>		<b>Frequency</b>	<b>Percent</b>
Valid	Consistency	9	9.2
	Improvements	30	30.6
	Implementation	51	52.0
	Increased understanding	5	5.1
	Appraisal of in-service	3	3.1
<b>Total</b>		<b>98</b>	<b>100</b>

It is therefore imperative to have follow-up programmes to ensure that what is taught is implemented appropriately and is not forgotten as soon as the course is over. It is only in having follow-up programmes that the organisers of INSET programmes will be able to know whether the trainees understood the course or not and this will enhance consistency and correct any errors detected. Follow up is also a form of appraisal for both the trainer and the trainee.

#### 4.10 Management Of In-Service Training

In-service training in Kenyan public secondary schools is organised at a school level, provincial level or at national level. According to figure 3 below 50% of INSET training is organised by the PDEs office, 20% by the MOEST headquarters, 13% by school head teachers 6% by departmental heads and 11.0% by consultants.

**Figure 3**



It is therefore noted that the PDE's office which is in charge of all the secondary programmes, also led in the organisation of in-service programmes.

According to the education Act as earlier noted, the Inspectorate division is charged with offering in-service training to all teachers. However, the INSET unit within the Inspectorate has not been involved in offering INSET training for secondary teachers. In fact, it has not planned any in-service training for secondary teachers since inception in the year 2000.

The subject inspectors in the ministry headquarters have not given much in terms of INSET training. As already noted only maths and science teachers are receiving, some in-service training through the JICA funded SMASSE project. The only other time the headquarters has organised national in-servicing was prior to the implementation of the curriculum changes towards the end of year 2002, which were effected in January of 2003.

In Nairobi Province most of in-service takes place during the school term. The selection of the teachers to attend in-service is done by respective school heads. The subject inspectors in the PDEs office are directly involved in organising in-service training. Each inspector organises in-service according to the needs of a given subject area. The subject inspectors are mostly influenced by availability of resources, money, materials and requests from teachers on areas of clarification. Introduction of new programmes, changes in the curriculum and in the quest of introducing new teaching methods also influence organisation and planning for in-service training.

While answering the question on whether teachers are informed in time about in-service programmes,

- 64.2% of the teachers said that they were informed about in-service on time.
- 35.8% said they were not informed about in-service on time. This was due to poor communication between the offices and the schools and between the school administration and the teachers.

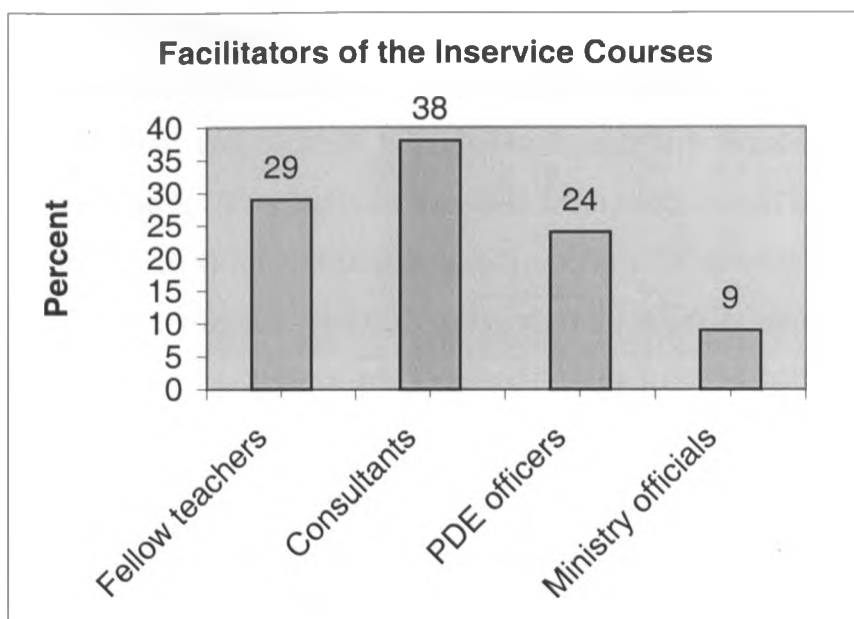
**Table 11: Timely information about course**

<b>Timely Information</b>	<b>Frequency</b>	<b>Percent</b>
YES	43	64.2
NO	24	35.8
<b>Total</b>	<b>67</b>	<b>100</b>

#### **4.11 Facilitators Of The In-Service Courses**

Although KESI is the ministry's division that provides in-service training it was however noted that KESI trainers were not used by the PDEs office to provide in-service training.

Figure 4 shows 40.6% of in-service is provided by fellow teachers, 21.9% is provided by consultants as well as officers from the PDEs office and 12.5% by the Ministry headquarters officers.

**Figure 4**

In the Smasse project, fellow teachers are trained as trainers and they therefore become facilitators amongst teachers. Through the interview with the co-ordinator INSET unit, the researcher established that the SbTD project also trains key resource teachers (KRTS) who work through the distance education learning materials and lead professional development in their schools. Through the subject panels they train other teachers for the purposes of improving the teaching in their subject areas. The teachers chosen to be key resource teachers (KRT) are selected according to a set criteria, which includes gender, motivation, commitment and professionalism.



According to the Director KESI, the officers used as trainers at KESI were inadequate. By the time the interview was carried out, there were only 12 out of 24 trainers. In order to close the shortfall, the institute was using professional facilitators mostly officers from the MOEST headquarters and the provincial and district offices. The institute had also trained its own Training of Trainers (TOTs) for the purposes of dealing with specialised field areas. The trainers at KESI were used to train administrators from all over the country and not necessarily from Nairobi.

#### **4.12 In-Service Resources**

The following data represents the amount of money received by PDE's Office as was established through the response by the P1S. The provincial director of education's office received approximately Ksh.750,000 per year. This is approximately Ksh.414.00 per teacher per year. This money was mostly provided by the Kenya Secondary School Heads Association (KSSHA) and was provided from the activity fees paid by parents. Individual teachers also paid for themselves.

The interview with the director revealed that KESI got its funding mostly from the Ministry of Education Science and Technology. Institutions pay for the Head teachers, deputy heads and heads of departments when they attended any of the courses offered. The MOEST paid for their staff who attended the courses. Some individuals like teachers from private schools paid for themselves.

During the current financial year 2003–2004 KESI had received Ksh. 20 million for its regular programmes and an additional

Ksh.10 million for the implementation of free Primary education. This came to approximately Ksh.42 for each of the 240,000 teachers in the country. According to the Director KESI the money allocated to the institution was inadequate and that was why the courses were only restricted to school administrators. As already noted the In-service programmes offered by KESI did not cover all officers in the education sector but only catered for Head teachers, Deputy head-teacher and HODs. Classroom teachers were not covered in anyway by the KESI courses

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Most of the funds in the INSET unit were from the Government, DFID and the World Bank as was reported by the co-ordinator. However, for the first time the INSET unit received Ksh. 10 million in the year 2003-2004 budget. This was the first time the Government allocated money specifically for In-service training. However, this money had not been used to train secondary school teachers, as the unit had no programmes in place covering secondary school teachers in Nairobi.

#### **4.13 Co-Ordination Of In-Service Programmes**

This section presents qualitative analysis of textural data obtained through an in-depth interview with the co-ordinator INSET unit. The Inspectorate division and the INSET unit for that matter was supposed to train, monitor and evaluate the training to ensure that quality was maintained.

The Role of the INSET unit as laid down in its framework clearly showed that the INSET unit should co-ordinate all in-service training. The objectives of the INSET unit as discussed by the key informant were:

1. To carry out regular training needs analysis for the in-service of teachers and support cadres within the MOEST. This was to be done by establishing national mechanisms for identifying and prioritising needs through inspections, appraisal of performance in schools, KNEC analysis, district and provincial inspection reports and reports from other key stakeholders such as TSC, Universities and KNUT.
2. To develop, prioritise and implement strategic plans for all activities of the INSET unit through liaison and co-ordination with all other sections of the Inspectorate, MOEST planning and development department and other relevant departments as well as Kenya Education Staff Institute (KESI) and other relevant institutions.
3. To provide a forum for the sharing of professional information within the MOEST and with other key stakeholders through establishing and maintaining a data base on training, establishing and maintaining a MOEST resource centre on training and pedagogy, production of a quarterly information newsletter on in-service and dissemination of information and guidelines related to in servicing.
4. To provide professional management and direction for the development of high quality in-service training materials and establishment of procedures for the production, stock control, storage and delivery of materials.
5. To initiate, design and harmonise appropriate training programmes for the inspectors, teachers, TAC tutors, teacher trainers and all the professional support cadres.
6. To establish and maintain appropriate management structures and mechanisms for all aspects of in-service training and on-going professional support at all levels

through relevant departments within the ministry of education field officers and other in-service providers.

7. To provide support for mentoring, monitoring and evaluation of all aspects of in-service training through training of resource persons, designing and making use of the monitoring and evaluation instruments, design of impact studies in liaison with field inspectors and the planning department utilising relevant feedback data for improvement.
8. To design, implement and maintain a national system of certification and accreditation for in-service training through liaison with the MOEST teacher education section, the Teachers Service Commission, the Public and Private Universities, the Kenya Institute of Special Education, the Kenya Education Staff Institute, the Kenya National Examinations Council, the Kenya National Union of Teachers and all other providers of in-service training
9. To manage inputs from local and international consultants to ensure that they support identified in-service and training needs.

From the laid down objectives the INSET unit was expected to co-ordinate in-service training activities. However, it had not been able to do so because it had not received official mandate from the MOEST officials. The unit found it difficult to co-ordinate without accreditation. Accreditation would enable the unit to set standards on:

- Eligibility of INSET providers
- Courses being offered, the length or duration of the courses and the types of assessment for the various courses as well as the certification and the value of certificates per each course given.

At the time of the study, all INSET providers acted independently without any follow up from the unit. The activities of the unit were not felt at the provincial level whereby the PDEs office acts independently receiving support from the KSSHA. In fact, the provincial office had not been able to utilise the KESI trainers on any of its INSET programmes, neither had they received any funds or sponsorship from the INSET unit. Therefore, the provincial office did not liaise with the INSET section in any way and therefore creating a gap between the unit and the PDEs office.

Although the unit used some of the KESI trainers in their programmes, nevertheless KESI also operated independently from the INSET unit. All INSET providers therefore, offered their own kind of in-service which had led to duplication of programmes as well as confusion due to lack of co-ordination.

#### **4.14 Constraints Hindering In-Service Training**

The teachers, the provincial inspector of schools, director KESI and the co-ordinator of INSET unit raised almost the same responses to constraints encountered while offering in-service training.

From the responses of the teachers as is described by the table overleaf, teachers believed that lack of funds, poor co-ordination, poor management and inadequate time were some of the constraints that hindered in-service training

**Table 12: Constraints Hindering In-service**

<b>Constraints Hindering in-service</b>	<b>Frequency</b>	<b>Percent</b>
Poor Management	16	15.4
Poor Co-ordination	18	17.3
Lack of Funds	53	51.0
Inadequate time	17	16.3
<b>Total</b>	<b>104</b>	<b>100</b>

The report from PIS endorses these findings and revealed that uncooperative managers who refused to release teachers to attend the courses acted as a hindrance. There were also too many activities for the inspectors such as co-ordinating drama, music, games and sports and new programmes like the free primary education (FPE) which had involved all the inspectors in the country.

The provincial office also reported that it lacked facilities and resource materials and had to rely on the schools to provide physical facilities like halls. Other facilities like photocopying, projectors, flip charts and other relevant equipment and materials were not available.

Report from KESI also concurred with the above findings and added that the legal notice number 565 of 1988 bound KESI to the parent ministry and hence hindered the institution from getting direct funding from the exchequer. KESI also lacked adequate and qualified staff. The physical facilities were inadequate and wrongly located inside Kenyatta University compound. This meant that the institute was not centrally located to attract trainees and there was always a permanent

fear of university students' riots and the danger of being caught in the melee. The hostels were also not suitable for the calibre of trainees since they were not self-contained. Also, the trainees were usually more than the facilities leading the institute to hire other facilities, which became expensive.

The INSET unit highlighted some of the hindrances to offering INSET programmes. According to the co-ordinator of the INSET unit, the following were some of the constraints hindering proper implementation of INSET training.

1. Lack of accreditation, which made co-ordination difficult.
2. Fragmented in-service training whereby different institutions offered what they could.
3. Lack of adequate funds, the unit had been relying on donor funds. This meant that once a project was over and the donors pulled out the projects could not be sustained and died off.

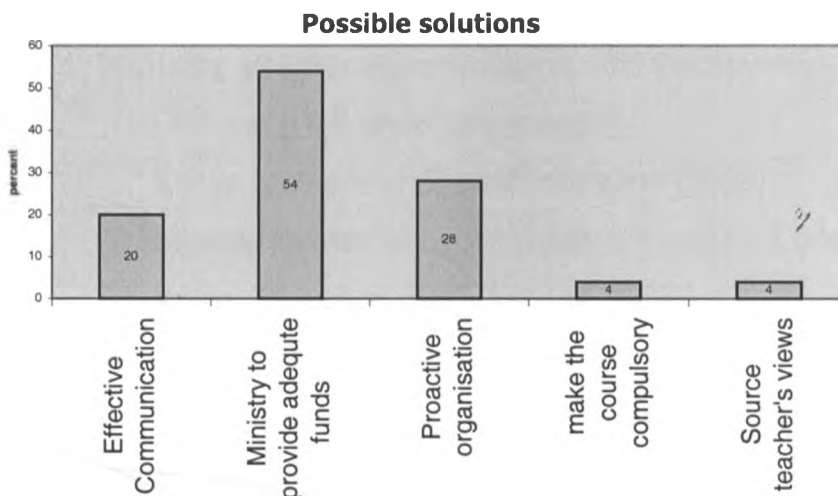
As already shown the money allocated to in-service training at national, provincial level and KESI was inadequate. It was also noted that there was total lack of co-ordination of in-service training programmes. Poor management was seen even at the school level where the school managers did not organise school based in-service or they did not expose all their teachers to in-service training. On the other hand, KESI concentrated, on training school managers forgetting the teachers who gave support to the administrators and the fact that they contribute to the success of the institutions.

#### 4.15 Possible Solutions to in-service Training

The suggestions made by teachers on possible solutions to the challenges discussed earlier were that facilitators should be of high calibre and should deliver effectively. For in-service to succeed the MOEST should provide the funds required to enhance in-service training where all teachers would be accommodated. The INSET unit should play its coordinating role more effectively to ensure that the right courses are offered to the deserving teachers and by qualified facilitators and competitive providers.

Figure 5 below shows some of the possible solutions.

**Figure 5**



To overcome some of the constraints of poor transport and accreditation the co-ordinator of INSET unit suggested that:

- Adequate transport should be provided. This can be done by giving motor bikes to field officers among them TAC tutors and inspectors which would enable them to give support services to INSET programmes.



- Accreditation process should be approved and put in place. This would enable the INSET unit give guidance to the INSET providers on curriculum, qualifications and requirements like duration issues.
- TAC tutors and inspectors should be given further training for their professional growth. This would both motivate and make them more efficient as facilitators, monitors and evaluators. They should also be issued with letters of recommendation as well as certificates of facilitation.

#### **4.16 Inset Providers**

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There were four main categories of INSET providers as was gathered during the interview with INSET co-ordinator.

##### **1. Ministry of Education Science and Technology**

The following fell under this category:

1. Kenya Institute of Special Education (KISE)
2. Smasse located at Kenya Science Teachers College
3. Kenya Education Staff Institute (KESI)
4. Inspectorate Division, MOEST
5. Kenya National Examinations Council (KNEC)
6. Kenya Institute of Education (KIE)
7. Teachers Service Commission (TSC)

##### **2. Development Partners**

- (i) Department Fund for International Development (DFID)
- (ii) Japanese International Cooperation Agency (JICA)
- (iii) German International Cooperation (GTZ)
- (iv) Republic of Netherlands (RNE)

- (iv) Canadian International Development Agency (CIDA)
- (v) Danish International Development Agency (DANIDA)
- (vi) World Bank

### **3. Religious Organisations**

- (i) Islamic Foundation
- (ii) Catholic Church (CISRET)
- (iii) Protestant churches under CCEA
- (iv) Christian Religious Education awareness for Teachers
- (v) Supreme Council of Kenya Muslims (Supkem)
- (vi) Aga Khan Foundation

### **4. Others**

- (i) Kenya National Union of teachers (KNUT)
- (ii) Kenya Secondary School Heads Association (KSSHA)

For all these and other unknown INSET providers to work harmoniously the INSET unit must be empowered to enable it control and co-ordinate the activities of the different groups. At present, all the cited providers act independently. They offer courses to teachers without consulting the INSET unit.

#### **4.17 Summary**

This chapter looked at the findings of the study from the teachers, the Provincial Inspector of schools, the Director KESI and the co-ordinator of the INSET Unit. The areas covered while

data was analysed and interpreted were on the Government policy on in-service training, types and frequency of in-service programmes, management and facilitation. The constraints and possible solutions to in-service training and the INSET providers found in Kenya. It was established that the secondary schools teachers are not only getting few chances of in-service training but also the money allocated from each of the teachers is inadequate to cater for all the teachers.

The MOEST headquarters through its INSET unit is not involved in anyway to ensure that teachers in Nairobi Province are receiving any form of in-service.

# **CHAPTER FIVE**

## **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.0 Introduction**

This chapter presents a summary of the study research findings, conclusion, recommendations of the study and suggestions for further research.

This was a descriptive research of 317 teachers in schools within Nairobi Province. The Study also targeted the provincial inspector of schools (Nairobi), the Co-ordinator INSET Unit and the Director KESI. The study employed questionnaires and interview schedules as the main research instruments.

The purpose of this study was to establish the difficulties encountered while in-servicing Secondary School teachers in Nairobi Province. It also sought to look at possible solutions to the Constraints. The study as well tried to establish the Government policy on in-service training and the role-played by the INSET unit in the provision of in-service training to secondary school teachers.

### **5.1 Summary of Research Findings**

The Researcher was able to get responses from 227 teachers out of 317 issued with the questionnaire. The Provincial Inspector of Schools, the Co-ordinator of the inset unit and the Director KESI also provided information through a questionnaire and interview

for the latter two officers. The study established among other things that: -

- Most of the teachers were trained majority of them having BED qualifications.
- Although the government policy was to provide in-service training to the teachers as a way of capacity building, the priority of the government however was to provide in-service training to primary school teachers as only 53.4% of the secondary school teachers in Nairobi had attended in-service courses.
- SbTD programmes aimed at reaching all the primary school teachers through the key resource teachers.
- The INSET Unit, which should be providing and co-ordinating in-service training had not been able to provide any in-service training for secondary school teachers.
- The unit had not been able to co-ordinate the activities of the various INSET providers due to lack of approval of the accreditation process leaving the area without proper guidelines and hence leading to confusion.
- The only successful in-service programme in place for secondary school teachers was the SMASSE project. This meant teachers of humanity subjects and languages had been left out in in-service training.
- KESI offers in-service training to school managers who include the Head teachers, Deputy Head Teachers and Heads of Departments. The classroom teacher had no chance to attend any of the KESI courses. This is despite the fact that the same classroom teachers were appointed to be Head teachers without any prior training to take up the management job.

- The amount of money allocated to the INSET Unit, KESI and the provincial office was not adequate.

## **5.2 Conclusion**

From the fore going, it can be concluded that:-

- The Government had not provided in-service training to secondary school teachers as expected. This left teachers to remain with their college grades, which did not add value to their careers.
- The INSET Unit had not been able to coordinate the programmes being offered by the various in-service providers. As a result, the field was confused without any guidelines and benchmarks to check on the curriculum, syllabus, assessment and follow-up of the programmes in place. In fact, the Unit was not aware of some of the providers since they did not pass through the MOEST for authority.
- The various constraints hindering in-service training such as lack of funds, poor co-ordination and management had not been adequately addressed to enable in-service training become an integral part of staff development.

## **5.3 Recommendations of The Study**

The following are the recommendations based on the findings and conclusions of the study.

1. The Government should support teachers in-service programmes through sponsorship, giving study leave and by recognising the certificates awarded. It should also increase the funds allocated for in-service training.

2. schools should be encouraged to introduce school based in-service training and ensure that all subjects are represented in the programme.
3. The Ministry of Education Science and Technology should strengthen the inspectorate division by supporting subject inspectors and giving them training in facilitation skills to enable them organise and conduct in-service training as part of their work schedules.
4. The INSET unit within the inspectorate must be strengthened by the Ministry officials recognising and endorsing the accreditation process. This will enable the unit to act as a watchdog over other INSET providers and it will be equipped with a yardstick to measure the quality, duration, relevance and certification of the courses offered by all INSET providers.
5. Promotion of teachers should be pegged on in-service programmes attended. In order to make teaching professional every teacher should undergo KESI courses for general and financial management as well as guidance and counselling. A mandatory clause of in-service should be incorporated in TSC code of regulations to ensure that teachers are aware that they should attend in-service courses to enable them get promotions.
6. KESI should diversify its programmes to include all types of cadre in the education sector. By emphasising on the school managers, the classroom teacher without whom the Head teachers cannot manage the schools are sidelined, yet they too need skills to cope with the changing school environment. It should urgently carry out a needs analysis study on secondary school teachers.

7. The legal notice number 565 of 1988 which set up KESI should be urgently reviewed and revised to give the KESI council powers to manage KESI as a body co-operate. This would enable KESI access direct funding from the treasury. It would also enable KESI employ its own qualified and adequate staff as well as diversifying its courses. KESI would be in a position to offer competitive salaries to attract highly qualified staff. It would be in a position to improve its physical facilities to attract more clientele.

#### **5.4 Suggestions For Further Research**

The study carried out on challenges facing in-service training in secondary schools of Nairobi Province established that there is need for further research.

1. This study was limited to secondary school teachers in Nairobi Province. Further research is recommended to cover a wider area to establish the extent to which the findings of this study could be generalised.
2. Further research with a larger sample should be done to determine to what extent the constraints/challenges affects/in-service training in Kenya.
3. A study on needs analysis of Kenyan secondary school teachers should be carried out to establish what relevant courses should be given preference while offering in-service training.
4. A study should also be carried out on the role of the inspectorate division of the MOEST in the provision of in-service training. This would help establish modalities for



offering in-service training to all secondary school teachers.

5. Research on in-service programmes offered should be conducted to cover other tertiary institutions in order to discover other factors that hinder implementation of in-service training.

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# APPENDICES

## APPENDIX I

### QUESTIONNAIRE FOR TEACHERS

The purpose of the study is to investigate challenges facing in-service training in Secondary schools of Nairobi Provinces and to possibly suggest possible ways of enhancing in-service training amongst the teachers.

Do not write your name on the questionnaire. Be objective as possible and complete the questionnaire honestly.

1. In which Division is your school situated

\_\_\_\_\_

2. What is your professional qualifications

- |                     |                          |
|---------------------|--------------------------|
| (A) M.E.D and above | <input type="checkbox"/> |
| (B) BED/ PGDE       | <input type="checkbox"/> |
| (C) SI/ DIP ED      | <input type="checkbox"/> |
| (D) PI and below    | <input type="checkbox"/> |

3. What is your status in the school?

- |                         |                          |
|-------------------------|--------------------------|
| (A) Head Teacher        | <input type="checkbox"/> |
| (B) Deputy Head Teacher | <input type="checkbox"/> |
| (C) Head of Department  | <input type="checkbox"/> |
| (D) Subject Head        | <input type="checkbox"/> |
| (E) Classroom Teacher   | <input type="checkbox"/> |

4. (a) Have you attended any in-service courses since joining your current school/station?

Yes

No

(b) If yes, how many in-service courses have you attended in the last two years.

---

5. Who organised the courses you attended?

(A) Ministry Of Education headquarters

(B) PDE's Office

(C) School Head Teachers

(D) Departmental Head

(E) Any Other-----

-----

(6) What topics were covered in the courses?

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(7)(a) Was an evaluation carried out at the end of the courses?

YES

NO

(b) If yes, how did you rate the courses you attended?

---

(8) Does your school organise school based in-service?

Yes

No

(b) If yes, how often are the courses held?

- (A) Once a term
- (B) Twice in a year
- (C) Every school holiday
- (D) Any other-----
- 

(9) Who were the facilitators in the courses you have so far attended?

- (A) Fellow teachers
- (B) Consultants
- (C) PDE's officers
- (D) Ministry of Education Headquarter officers
- (E) Any other-----
- 

10. Were you informed in time about the courses?

- Yes
- No

(11)(a) Were you issued with certificates after attending the course(s)?

- YES
- NO

(b) Do you think a certificate of participation is important?

- YES
- NO

If yes, give reasons

---



---

(12)(a) Were there any follow up programmes after the courses?

- Yes
- No



(b) Why do you think follow up is of importance to the participants?

---



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(13) (a) Do you know of any in-service programme put in place by the ministry of education science and Technology?

Yes

No

(b) If yes, list the programmes already in place that you are aware of?

(i)

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(ii)

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(iii)

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(iv)

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(14)(a) In your own opinion what constraints hinder in-service programmes to be effected?

(i)

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(ii)

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(iii)

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(iv)

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(b) What possible solutions can you suggest to alleviate the constraints?

(i)

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(ii)

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(iii)

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(iv)

---

(15)(a) Do you think In-Service training is of any benefit to teaching and learning?

Yes

No

(b) If yes, list some of the benefits both the teachers and students gain from in-service training.

(i)

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(ii)

---

(iii)

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(iv)

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## APPENDIX II

### QUESTIONNAIRE FOR THE PROVINCIAL INSPECTOR OF SCHOOLS

The purpose of the study is to investigate challenges facing in-service training in secondary schools of Nairobi Province and to suggest possible ways of enhancing in-service training amongst the teachers. Be objective as possible and complete the questionnaire honestly.

1 (a) is there an in-service programme in place in your Province?

Yes

No

(b) If yes how is the programme organised?

(A) Quarterly

(B) Semi Annually

(D) Annually

(E) Any Other -----

-----

2.(a) How do you select teachers to attend in-service training?

\_\_\_\_\_

(b) Do you involve the school managers in choosing the topics of discussion?

Yes

No

3. When does the in-service training mostly take place?

i) During the school term

ii) During the school holidays

4. (a) Do you give awards (certificates) to the teachers after training?

Yes

No

(c) Do the teachers value these certificates and why?

---

---

5. (a) Are the subject inspectors involved in organising in-service training?

Yes

No

(b) What factors influence subject inspectors to organise in-service training?

---

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6 (a) how much money is allocated for in-Service training per year?

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(b) Is the money adequate?

Yes

No

7 (a) who are some of the In-Service Providers in your Province?

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(b) Who funds the In-Service Programmes already in place?

- (A) MOEST headquarters
- (B) Donors
- (C) B.O.G's
- (D) Teachers
- (E) Any Other-----  
-----

8 (a) Have you ever used the KESI trainers and facilities for in-service training?

- Yes
- No

(b) If yes, how did you rate their level of facilitating?

- (A) Excellent
- (B) V. Good
- (C) Good
- (D) Average
- (E) Poor

9 (a) Do you liase with the INSET section of the Headquarters?

- Yes
- No

(b) If yes, how many courses have you organised together?

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10. what factors would influence you to organise In-Service training for secondary school teachers?

- (i) \_\_\_\_\_
- (ii) \_\_\_\_\_
- (iii) \_\_\_\_\_
- (iv) \_\_\_\_\_

11. What problems hinder you from organizing In-service training in your Province?

- (i) \_\_\_\_\_  
 (ii) \_\_\_\_\_  
 (ii) \_\_\_\_\_  
 (iv) \_\_\_\_\_

12. What possible suggestions would you give to make In-Service training successful?

- (i) \_\_\_\_\_  
 (ii) \_\_\_\_\_  
 (iii) \_\_\_\_\_  
 (iv) \_\_\_\_\_

13. (a) Is in-service training of any benefit to the teachers.

Yes

No

(b) If yes, how have the teachers already trained benefited?

\_\_\_\_\_  
 \_\_\_\_\_

14. Is there any relationship between In-Service and performance?  
 Please specify by giving examples.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## APPENDIX III

### INTERVIEW SCHEDULE FOR DIRECTOR, KESI

1. How long have you been the head of the Institution?
2.
  - a) How many officers work under you?
  - b) Is the number of officers adequate?
  - c) Who else do you use for training?
3.
  - a) Has KESI been able to achieve its training objectives?
  - b) What hinders you from achieving these objectives?
4.
  - a) How many courses have you held in the last one year for Secondary school teachers.
  - b) Where were the teachers trained?
  - c) What positions did the teachers hold in their school?
5. Who funds your training programmes apart from MOEST?
6.
  - a) How much money is allocated by the Ministry for the training programmes per year?
  - b) Is the money adequate?
7.
  - a) Do the programmes offered by your institution cover all Officers in education circle?
  - b) What other courses would you suggest which can benefit classroom teachers?
8. In what ways can KESI be assisted to expand its training programmes.
9. What courses has KESI given to the teaching Fraternity, which you consider of great benefit to the teaching profession?
10. Can you suggest ways in which in-service training can be integrated into the education programmes?

## **APPENDIX IV**

### **INTERVIEW SCHEDULE FOR CO-ORDINATOR OF IN-SERVICE TRAINING (INSET) UNIT .**

#### INSPECTORATE HEADQUARTERS

1. When was the INSET Unit established?
2. What are the objectives of the Unit?
3. To what extent have these objectives being met?
4. How may officers work under you?
5. Is the number adequate for organising in-service programmes?
6. What programmes are currently in place under INSET
7. Where does INSET gets it's funding from?
8. How much money is allocated to the INSET unit per year?
  - a) Apart from the MOEST, who are the other in-service providers in Kenya?
  - b) Is there a mechanism of co-ordinating in-service programmes provided by MOEST and other organs?
  - c) How is the coordination carried out?
10. How does the INSET unit involve the field officers in the INSET programmes?
11. What is the Government's priority area in providing in-service training? Is it among primary or Secondary school teachers?
12. What are the factors that hinder proper implementation of in-service programmes.
13. How can their problems be addressed?
14. What can you suggest as a possible way forward for in-service training in Kenya.



## APPENDIX V

### PUBLIC SECONDARY SCHOOLS NAIROBI PROVINCE 2003

NO.	NAME	DIVISION
1.	LANG'ATA HIGH	Langata
2.	NGARA GIRLS	Starehe /Central
3.	NAIROBI MILIMANI	Westlands
4.	DAGORETTI HIGH	Dagoretti
5.	AQUINAS HIGH	Makadara
6.	MOI FORCES ACADEMY	Starehe/Central
7.	MUSLIM GIRLS	Starehe/Central
8.	PARKLANDS BOYS	Westlands
9.	STAREHE BOYS	Starehe
10.	EMBAKASI GIRLS	Embakasi
11.	MUHURI MUCHIRE	Embakasi
12.	PRECIOUS BLOOD	Dagoretti
13.	STATE HOUSE GIRLS	Westlands
14.	MOI NAIROBI GIRLS	Langata
15.	HOSPITAL HILL	Westlands
16.	RUARAKA HIGH	Kasarani
17.	ST. GEORGES	Westlands
18.	OFAFA JERICHO	Makadara
19.	NILE ROAD	Makadara
20.	OUR LADY OF MERCY	Makadara
21.	HIGHWAY SECONDARY	Makadara
22.	PUMWANI SECONDARY	Starehe
23.	LENANA SCHOOL	Langata
24.	MUTUNINI SECONDARY	Dagoretti

25.	UPPER HILL	Westlands
26.	KAMUKUNJI	Kamukunji
27.	KAMITI SECONDARY	Kasarani
28.	NEMBU GIRLS	Dagoretti
29.	PARKLANDS ARYA	Westlands
30.	ST. TERESA'S BOYS	Starehe
31.	NAIROBI SCHOOL	Westlands
32.	PANGANI GIRLS	Starehe
33.	DANDORA SECONDARY	Embakasi
34.	ST. TERESA'S GIRLS	Starehe
35.	KAYOLE SECONDARY	Embakasi
36.	MAINA WANJIGI	Starehe
37.	KANGEMI HIGH	Westlands
38.	RUTHIMITU MIXED	Dagoretti
39.	RUTHIMITU GIRLS	Dagoretti
40.	UHURU SECONDARY	Makadara
41.	HURUMA GIRLS	Makadara
42.	JAMHURI HIGH	Starehe
43.	KENYA HIGH	Westlands
44.	BURUBURU GIRLS	Makadara
45.	EASTLEIGH HIGH	Starehe
46.	OUR LADY OF FATIMA	Kasarani
47.	KAHAWA GARRISON SECONDARY	Kasarani

### SUMMARY OF SCHOOLS PER DIVISION

DIVISION	NUMBER OF SCHOOL
Langata	3
Starehe	11
Westlands	10

Dagoretti	6
Makadara	8
Embakasi	4
Kamukunji	1
Kasarani	<u>4</u>
<b>Total</b>	<b><u>47</u></b>

# KCSE RESULTS SUMMARY ANALYSIS 2002 - NAIROBI PROVINCE

## NAIROBI PROVINCE KCSE 2002 RESULTS SUMMARY ANALYSIS

PST	KCSE CD.	SCHOOL	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	X	Y	ENT.	MEAN	MEAN	PST.	MEAN	MEAN	MEAN		
																		SCORE	GRD.		DEVT.	SCR.	SCR.	SCR.	
1	401018	PRECIOUS BLOOD	16	42	20	8	2	1	0	0	0	0	0	0	0	0	0	89	10.663	A-	0.458	3	10.205	10.207	10.466
2	401067	KIANDA SCH.	5	13	9	7	3	0	0	0	0	0	0	0	0	0	0	37	10.27	B+	0.27	4	10	9.486	9.675
3	400005	STRATHMORE SCH	3	34	25	14	6	2	0	0	0	0	0	0	0	0	0	84	10.095	B+	-0.193	1	10.288	10.222	10.043
4	400004	STAREHE BOYS	3	73	67	30	23	5	3	1	0	0	0	0	0	0	0	205	9.859	B+	-0.364	2	10.223	10.248	10.2
5	401099	SUN SHINE SEC.	5	41	35	27	25	7	1	0	0	0	0	0	0	0	0	141	9.638	B+	0.596	7	9.042	9.704	9.272
6	401017	PANGANI GIRLS	18	43	76	52	39	22	7	2	1	0	0	0	0	0	0	260	9.381	B	0.021	5	9.36	8.73	8.309
7	400003	KENYA HIGH	5	43	45	27	32	15	19	6	1	0	0	0	0	0	0	193	8.99	B	-0.244	6	9.234	8.66	8.487
8	400002	NAIROBI SCH.	6	39	60	41	31	23	17	7	3	0	0	0	2	0	0	229	8.934	B	0.633	11	8.301	8.147	7.414
9	400008	MOI FORCES AC.	2	24	40	32	28	24	15	5	1	0	0	0	0	0	0	171	8.696	B	0.169	8	8.527	8.599	8.622
10	400001	LENANA SCH.	6	38	40	44	44	30	19	6	3	0	1	0	1	0	0	232	8.684	B	0.364	10	8.32	8.627	8.144
11	401111	LIGHT ACADEMY	2	0	4	2	5	2	2	0	1	0	0	0	0	0	0	18	8.444	B-	2.853	36	5.591	-	-
12	401014	MOI GIRLS	0	27	31	44	34	39	15	7	2	2	0	0	0	0	0	201	8.393	B-	0.275	12	8.118	7.897	8.544
13	401084	BURUBURU GIRLS	0	2	20	23	25	12	13	6	1	0	0	0	0	0	0	102	8.088	B-	0.144	13	7.944	7.217	7.294
14	401019	STATE HOUSE GIRLS	0	7	18	29	24	25	17	5	1	0	0	0	1	0	0	127	8.063	B-	0.369	14	7.694	7.916	7.664
115	401079	ST. GEOGE'S SEC.	0	4	22	30	30	30	24	8	4	1	0	0	0	0	0	153	7.758	B-	-0.583	9	8.341	8	7.854
16	401024	LORETO C. VALLEY RD	1	3	11	11	9	13	10	6	2	1	0	0	1	0	0	68	7.731	B-	0.545	18	7.186	7.065	6.679
17	401005	HIGH WAY SEC	3	7	21	23	29	33	27	14	10	6	0	0	2	0	0	175	7.416	C+	0.632	25	6.784	7.208	7.534
18	401026	QUEEN OF APOSTLES	0	1	4	11	13	12	11	4	3	0	0	0	0	0	0	59	7.399	C+	0.26	21	7.139	7.386	6.966
19	401105	CONSOLATA SEC	0	1	6	9	13	8	12	4	2	2	0	0	0	0	0	57	7.333	C+	0.158	19	7.175	6.492	-
20	401103	KARENGATA ACAD	0	0	1	3	6	8	4	0	0	1	0	0	0	0	0	23	7.304	C+	0.366	24	6.938	5.429	5.588
21	401002	DAGORETTI H. SCH	1	6	15	17	21	24	24	10	13	4	0	0	0	0	0	135	7.222	C+	0.527	26	6.695	6.705	6.818
22	401009	UPPER HILL SCH.	1	13	16	16	29	33	24	23	12	10	1	0	2	0	0	180	7.084	C+	1.057	33	6.027	6.802	6.192
23	401104	MAKINI ACAD. LANGATA	0	1	4	4	16	10	21	8	1	0	0	0	0	0	0	65	7	C+	-0.666	16	7.792	7.792	7.468
24	401134	RIARA SPRINGS	0	0	1	1	1	8	2	2	1	0	0	0	0	0	0	16	6.813	C+	-	-	-	-	-
25	401023	LORETO C. MSONGARI	1	0	1	2	7	4	7	9	1	1	0	0	0	0	0	33	6.606	C+	0.273	30	6.333	6.415	6.23
26	401015	NGARA GIRLS	0	1	9	14	24	42	36	38	12	4	1	0	1	0	0	182	6.519	C+	0.329	31	6.196	5.621	5.596
27	401130	ST. HANNAHS PREP.SEC	0	0	0	0	2	1	2	0	1	0	0	0	0	0	0	6	6.5	C+	-	-	-	-	-
28	401013	MUSLIMS GIRLS SCH	1	0	3	5	12	8	16	12	7	2	1	0	0	0	0	67	6.433	C	-0.717	20	7.15	5.8	6.956
29	401077	KARURA S.D.A	0	1	1	0	3	6	14	5	2	0	0	0	0	0	0	32	6.375	C	-0.625	23	7	6.621	5.706
30	401016	O'JR. LADY OFMERCY	0	0	3	6	9	14	19	14	8	2	0	0	0	0	0	75	6.347	C	-0.738	22	7.085	6.325	6.725
31	401025	ST. MARY'S SCH.	0	0	2	3	7	11	15	11	11	1	1	0	0	0	0	62	6.032	C	-0.407	29	6.436	6.688	6.126
32	401115	MALEZI SECONDARY	0	0	0	0	1	0	2	2	0	0	0	0	0	0	0	5	6	C	-1.6	17	7.6	-	-
33	401003	JAMHURI H. SCH	0	2	4	11	15	28	22	36	31	14	0	0	0	0	0	166	5.859	C	-0.043	34	5.902	5.785	5.037
34	401001	AQUINAS H. SCH.	0	0	5	11	12	21	23	28	29	16	4	0	1	0	0	150	5.651	C	-0.464	32	6.115	5.836	5.227
35	401004	EASTLEIGH H. SCH	0	0	8	5	12	23	31	40	28	15	3	0	0	0	0	165	5.642	C	-0.999	27	6.641	6.061	5.405
36	401029	ST. TERESA'S GIRLS	0	0	0	6	4	13	16	25	12	5	2	0	0	0	0	83	5.602	C	0.022	37	5.58	5.368	5.214
37	401022	CAFAPA JERICHO SEC	0	0	3	3	13	19	17	26	23	10	4	0	1	0	0	119	5.559	C	-0.89	28	6.449	5.576	4.687

38	401071	HOSPITAL HILL SEC	0	1	1	3	6	12	7	8	17	9	1	0	0	0	65	0.523	C	0.374	42	5.149	4.697	4.576	
39	401021	AGA KHAN HIGH SCH.	0	0	1	4	16	25	19	36	33	10	3	0	1	0	148	5.517	C	-0.058	38	5.575	5.359	5.959	
40	401096	ST. MARTINS GIRLS SEC	0	0	0	0	1	7	10	18	5	1	0	0	0	0	42	5.476	C	0.935	50	4.541	4.222	3.651	
41	401088	OUR LADY OF FATIMA SEC	0	4	2	4	5	14	29	18	29	16	2	0	1	0	124	5.447	C-	0.243	41	5.204	5.575	4.857	
42	401033	ST. ELIZABETH A. KAREN	0	0	0	0	2	0	5	7	1	2	0	0	0	0	17	5.353	C-	-	-	-	-	-	
43	401012	HURUMA GIRLS SEC	0	0	1	4	2	8	11	16	21	7	1	0	3	0	74	5.225	C-	-0.343	39	5.568	4.983	5.136	
44	401101	APOSTOLIC CARMEL SEC	0	0	0	2	4	8	15	19	13	10	2	0	0	0	73	5.164	C-	0.309	44	4.855	4.67	4.523	
45	401110	MUHURI MUCHIRI SEC	0	0	3	4	9	6	12	12	19	13	10	0	0	0	88	5.08	C-	0.263	46	4.817	-	-	
46	401097	ST. CATHERINES MT. VIEW	0	0	1	0	0	2	3	8	3	2	1	0	0	0	20	5.05	C-	-0.263	40	5.313	5.455	4.118	
47	401107	FOREST VIEW ACADEMY	0	0	1	1	1	1	6	8	5	5	2	0	0	0	30	4.967	C-	0.379	49	4.588	-	-	
48	401114	LA VERNE SCHOOL	0	0	0	1	1	0	3	1	3	1	2	0	3	0	15	4.916	C-	0.916	60	4	-	-	
49	401132	ST. MARY ACADEMY	0	0	0	2	0	1	3	2	4	4	1	0	0	0	17	4.882	C-	-	-	-	-	-	
50	401054	LANGATA HIGH	0	1	1	2	7	8	7	14	26	16	3	0	0	0	87	4.839	C-	-0.174	43	5.013	4.708	4.68	
51	401006	PARKLANDS BOYS	0	0	2	1	3	9	10	15	23	18	7	0	2	0	90	4.784	C-	0.097	48	4.687	4.224	3.905	
52	401011	PARKLANDS ARYA GIRLS	0	0	1	1	7	10	13	24	30	26	3	0	2	0	117	4.757	C-	-0.096	45	4.853	5.541	5.211	
53	401087	DANDORA SEC	0	1	2	1	3	4	11	18	18	21	5	0	0	0	84	4.679	C-	0.221	52	4.458	4.557	3.986	
54	401029	MUTUINI HIGH	0	0	0	3	3	1	14	8	14	12	7	1	1	0	64	4.587	C-	1.038	69	3.549	3.482	4.216	
55	401125	JUSTINO SEC	0	0	1	1	0	1	5	8	15	6	2	0	1	0	40	4.564	C-	-	-	-	-	-	
56	401051	ARYA BOYS	0	0	0	0	1	1	4	4	4	2	5	0	0	0	21	4.333	D+	-0.096	53	4.429	3.696	3.273	
57	401008	ST. THERESA'S BOYS	0	0	3	2	4	8	8	9	12	29	20	1	2	0	98	4.219	D+	0.447	66	3.772	5.24	4.543	
58	401063	KAMITI SEC	0	0	1	2	3	8	4	17	28	26	15	0	0	0	104	4.202	D+	-0.103	55	4.305	4.559	3.619	
59	401007	PUMWANI SEC	0	0	0	2	4	4	12	20	13	26	19	0	3	0	103	4.18	D+	-0.142	54	4.322	4.44	4.058	
60	401032	KHALSA GIRLS	0	0	0	0	0	0	2	5	5	4	1	0	1	0	18	4.176	D+	0.263	62	3.913	4.484	4.458	
61	401076	NEMBU GIRLS	0	0	0	0	0	0	7	12	18	15	4	0	1	0	57	4.054	D+	0.015	59	4.039	3.474	3.319	
62	401108	EMBAKASI GIRLS	0	0	0	0	1	1	1	1	1	3	5	0	0	0	13	4	D+	0.042	61	3.958	-	-	
63	401128	SUNFLOWER ACADEMY	0	0	0	0	0	2	2	4	6	15	0	0	0	0	29	3.966	D+	-	-	-	-	-	
64	401081	RUARAKA HIGH	0	0	0	0	1	2	11	9	17	26	9	0	0	0	75	3.96	D+	-0.293	56	4.253	3.929	4.338	
65	401091	KAYOLE SEC	0	1	1	1	2	4	7	11	17	26	20	1	2	0	93	3.934	D+	0.22	67	3.714	3.34	3.568	
66	401106	BALKAN HIGH	0	0	0	0	1	7	2	8	18	21	10	1	0	0	68	3.897	D+	0.407	74	3.49	3.048	-	
67	401057	RUTHIMITU SEC	0	0	0	1	5	1	3	12	17	21	17	0	0	0	77	3.883	D+	0.073	64	3.81	3.798	3.141	
68	401089	MAINA WANJIGI SEC	0	0	0	0	3	3	6	11	19	13	16	3	1	0	75	3.865	D+	1.014	84	2.851	2.851	3.182	
69	401124	KASARANI ACADEMY	0	0	0	0	0	2	3	1	6	12	3	0	0	0	27	3.815	D+	-	-	-	-	-	
70	401093	KYUNA ACADEMY	0	0	0	0	1	1	2	3	1	6	6	0	1	0	21	3.8	D+	0.326	73	3.474	3.239	3.556	
71	401094	KABETE APPROVED	0	0	1	0	1	0	1	8	8	16	6	1	1	0	43	3.738	D+	-0.119	63	3.857	4.286	4.182	
72	401086	NAIROBI MILIMANI	0	0	1	0	2	1	3	13	17	28	16	0	0	0	81	3.704	D+	-0.795	51	4.5	3.687	3.274	
73	401095	KENYA MUSLIM ACADEMY	0	0	0	0	0	1	7	4	6	13	7	2	0	0	40	3.7	D+	-0.096	65	3.796	4.412	3.848	
74	401062	KANGEMI HIGH	0	0	0	0	0	3	4	14	13	18	20	1	0	0	73	3.589	D+	0.023	68	3.566	3.899	3.394	
75	401131	ST. EUNICE ACADEMY	0	0	0	0	0	1	0	0	0	1	2	0	0	0	4	3.5	D+	-	-	-	-	-	
76	401030	UHURU SEC	0	0	0	0	0	1	6	8	13	20	17	1	0	0	66	3.485	D	-0.589	58	4.074	4.446	3.819	
77	401064	WAKULIMA SEC	0	0	1	0	0	0	6	7	14	19	16	3	0	0	66	3.47	D	0.203	78	3.267	3.644	2.735	
78	401116	TAPIA ACADEMY	0	0	0	0	0	1	0	1	4	7	4	0	0	0	17	3.352	D	-2.421	35	5.773	-	-	
79	401123	IMPRESZA SEC	0	0	0	0	0	0	0	0	7	4	11	4	1	0	0	27	3.444	D	-	-	-	-	-

80	401118	WELKIM SENIOR ACADEMY	0	0	0	0	0	3	1	2	7	17	12	0	1	0	43	3.334	D	-0.051	76	3.385	-	-
81	401121	FRIENDS SEC DANDORA	0	0	0	0	0	3	2	2	10	4	2	0	0	23	3.304	D	-	-	-	-	-	
82	401033	DON BOSCO SEC	0	0	0	1	2	2	4	7	15	28	29	6	1	1	96	3.255	D	-0.061	77	3.316	3.082	3.188
83	401028	ARYA GIRLS	0	0	0	0	0	0	0	1	4	14	1	0	0	20	3.25	D	-0.938	57	4.188	4.85	4.65	
84	401066	R.G.S. SEC	0	0	0	0	0	4	5	7	16	26	41	1	1	0	101	3.18	D	-0.085	79	3.265	3.375	2.986
85	401027	SHARDA HIGH SCHOOL	0	0	0	0	0	0	4	4	6	14	16	1	1	0	46	3.178	D	-0.335	70	3.518	3.703	2.688
86	401073	NILE ROAD SEC	0	0	0	0	0	0	0	5	11	32	13	0	0	0	61	3.131	D	-0.292	75	3.423	3.347	3.827
87	401119	GLOBAL VISION SEC	0	0	1	1	0	1	3	4	13	12	34	3	0	0	72	3.097	D	-0.403	71	3.5	-	-
88	401109	ST. GABRIEL'S SEC	0	0	0	0	0	1	4	0	5	9	18	1	0	0	38	3.026	D	-0.474	71	3.5	-	-
89	401048	DOMINIC SAVIO'S SEC.	0	0	0	0	0	1	2	17	13	25	33	14	1	0	106	2.962	D	0.276	88	2.686	2.414	2.714
90	401069	SHAURI MOYO MUSLIM	0	0	0	0	0	1	4	8	14	32	54	3	1	0	117	2.879	D	0.004	82	2.875	3.156	3.255
91	401112	TEMPLE ROAD HIGH	0	0	0	1	0	0	1	1	2	5	12	2	0	0	24	2.875	D	0.187	87	2.688	-	-
92	401072	ST. JOHN'S HIGH	0	0	0	0	0	1	4	3	3	9	23	4	0	0	47	2.872	D	0.268	89	2.604	2.864	2.21
93	401127	ST. BERNARD'S SEC	0	0	0	0	0	1	1	2	1	8	12	2	2	0	29	2.852	D	-	-	-	-	
94	401113	LILI VISION HIGH	0	0	1	0	0	1	0	2	11	14	28	6	1	0	64	2.777	D	-0.089	83	2.866	-	-
95	401042	BURUBURU ACADEMY	0	0	0	0	0	1	2	4	19	39	48	9	1	0	123	2.762	D	-0.181	81	2.943	3.081	3.281
96	401117	EXETER COMPLEX	0	0	0	0	0	1	0	0	5	7	15	1	2	0	31	2.724	D	-0.426	80	3.15	-	-
97	401043	ST. EDWARD'S HIGH SCH.	0	0	0	0	0	0	2	3	7	11	24	6	1	0	54	2.679	D	0.203	91	2.476	2.467	2.4
98	401092	KAMUKUNJI SEC	0	0	0	0	0	1	1	5	11	23	55	3	1	0	100	2.667	D	-0.12	85	2.787	2.484	2.659
99	401070	DEVONSHIRE SEC	0	0	0	0	0	0	0	4	7	15	16	9	0	0	51	2.627	D	-0.071	86	2.698	2.228	-
100	401122	RUTHIMITU GIRLS	0	0	0	0	0	0	0	1	2	5	7	2	0	0	17	2.588	D	-	-	-	-	
101	401129	NGARA QUEENS ACAD.	0	0	0	0	0	1	0	1	5	8	14	7	2	0	38	2.528	D	-	-	-	-	
102	401044	KENYAN COLLEGE	0	0	0	0	0	2	1	2	0	9	29	6	2	0	51	2.469	D	0.151	93	2.318	2.018	2.234
103	401120	ST. JOAN SENIOR SCHOOL	0	0	0	0	1	0	0	0	0	3	10	3	0	0	17	2.353	D-	-0.247	90	2.6	-	-
104	401053	S.S.D SEC.	0	0	0	0	1	0	1	2	8	13	39	17	0	0	81	2.346	D-	0.264	95	2.081	2.51	2.446
105	401074	GURU NANAK SEC.	0	0	0	0	0	0	1	3	2	11	37	8	2	0	64	2.323	D-	-0.095	92	2.418	2.667	2.375
106	401126	RACECOURSE ROAD SEC	0	0	0	1	0	0	0	0	6	16	29	19	4	0	75	2.225	D-	-	-	-	-	
107	401040	PAN AFRICAN HIGH	0	0	0	0	0	0	0	0	0	6	19	2	1	0	28	2.148	D-	-0.127	94	2.275	2.759	2.75

COMPARATIVE RESULTS SUMMARY															
YEAR	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	X	Y	ENTRY
2002	79	474	656	617	712	767	835	889	962	1075	984	153	65	1	8270
2001	76	403	541	673	764	794	834	907	983	988	927	143	62	2	8097
2000	74	316	516	637	732	792	862	942	949	1001	815	137	46	7	7826
1999	55	267	479	591	693	767	846	913	968	1131	926	93	-	-	7729

YEAR	MEAN SCORE	MEAN GRADE	% A - C+	% A - D+	% D - E	% Es	Dvt.	Year
2002	5.8495	C	40.28	72.44	26.747	1.865	0.009	2002
2001	5.8402	C	40.5	73.79	25.619	1.778	0.005	2001
2000	5.7914	C	39.2	74.88	25.125	1.763	0.167	2000
1999	5.624	C	-	-	-	-	-	

**Note:**

- (i) The provincial mean score is on the upward trend. Our mean score target for 2003 is 7.0. The last school in the province should have a mean score of 4.00.
- (ii) All schools to work towards quality grades
- (iii) D to E's should reduce to 10% by 2004.

SOURCE; P. D E'S OFFICE NAIROBI