

**THE EXTENT AND PRACTICE OF TOTAL QUALITY  
MANAGEMENT IN SECONDARY SCHOOLS IN KENYA:  
A STUDY OF SECONDARY SCHOOLS IN ELDORET EAST DISTRICT**

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## DECLARATION

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**DEDICATION**

This work is dedicated to my family for their moral support and prayers in the course of my studies.

## ABSTRACT

This study investigated the extent and practice of Total Quality Management in secondary schools in Eldoret East District. The concept of Total Quality Management is a relatively new tool of management in schools in Kenya. It is a modern management practice aimed at continuous improvement of skills, processes, products and services, quality and teamwork. Secondary schools in Kenya are managed by Board of Governors and Principals on behalf of the Ministry of Education. These schools are different with different resources. Given similar resources, different schools perform differently in national examinations administered by Kenya National Examinations Council (KNEC). This is attributed to the management practices in each individual school. The Ministry of Education conducts induction courses for new principals and Board of Governors for capacity building but this does not make the performance of schools with the same resources to be similar. The study sought to determine the role of training in the implementation of Total Quality Management, assess the role of heads of department in improvement of quality and standards and investigate the challenges facing implementation of Total Quality Management in secondary schools. The research was premised on the systems theory of organization. This theory states that schools operate as systems with many parts which are interdependent. In the investigation, a survey research design was adopted. The study utilized the stratified random sampling technique. Data was collected using questionnaires. The respondents were Principals, Directors of Studies and Heads of Departments. A total of 15 secondary schools in Eldoret East District participated in the study. Data from the field was analyzed using descriptive statistical methods such as frequencies and percentages. Tables, graphs and pie charts were used for presentation and interpretation of data. The investigation established that implementation of Total Quality Management is faced with many challenges such as lack of commitment by the staff, poor organizational culture, lack of adequate training and poor documentation. The researcher recommends that all stakeholders in a school, like Board of Governors, Principals, Heads of Department and teachers among others and the Ministry of Education should work together to enhance the implementation of Total Quality Management in schools. This is because each one of them has a role to play in improvement of quality and standards in a school. The realization of quality in secondary education therefore requires a collective approach with emphasis on service delivery which should be evaluated from time to time so as to minimize on the challenges.

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**LIST OF ABBREVIATIONS**

DQASO	District Quality Assurance and Standards Officer
GOK	Government of Kenya
ISO	International Organization for Standardization
KEMI	Kenya Education Management Institute
KNEC	Kenya National Examinations Council
MOE	Ministry of Education
NGO	Non-Governmental Organizations
RBM	Results Based Management
SAGAS	Semi-Autonomous Government Agencies
TQM	Total Quality Management

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## **CHAPTER ONE**

### **INTRODUCTION AND BACKGROUND INFORMATION**

#### **1.0 Introduction**

This chapter gives background information to the study and the region where the study was based. It gives an overview of Total Quality Management (TQM) concepts and quality assurance in education. The chapter also looks into the statement of the problem that necessitated the need for the research, purpose and objectives of the study, research questions, the scope and the limitations of the study.

#### **1.1 Background to the Study**

One of the primary and most important service industries in the public sector and communities is education. It is the quality of education that forms an enduring wealth and security of the societies and their people, Babbar (1995). During the last two decades, the preservation of high quality and standards in education has become a major concern for educational institutions and the government. Consequently, the demand for explicit quality evaluation and assurance processes has been increased rapidly. The enormous funds which the government allocates to this sector makes it very important for those who manage education to ensure that the quality of education imparted in schools and other institutions of learning is of the required standard. During the 2012-2013 financial year, the government allocated Ksh 200 billion to the Ministry of Education in the budget, (2012-2013 budget, GOK, 2012).

Due to the increasing demand for quality in education, it has become necessary for schools to adopt modern management practices. It is now a requirement that educational institutions should have a strategic plan, mission and vision statements,

service charter and sometimes a quality policy statement all of which are quality management practices (MOE strategic plan, 2006-2011).

Quality is a priority in organizations today and improving quality is one of the most important tasks addressed in many institutions. Kenyan schools have started to establish quality sector so as to improve the quality and standards of secondary education and make their systems more effective. Recently, one philosophy has emerged in the concepts of quality and management, referred to as Total Quality Management (TQM).

TQM is both a philosophy and a methodology. It can assist institutions to manage change by putting in place strategies for dealing with new external pressures. TQM when properly applied in education can bring out a transformation. It helps in the creation of an organization culture committed to continuous improvement, Krietner (2000). However, TQM cannot solve all problems in a system and does not bring results overnight. It is a set of tools that can be employed in the management of educational institutions.

TQM is a systematic approach to education reform based on the philosophy of W. Edwards Deming (2000). Deming's work is not merely about productivity and quality control; it is a broad vision on the nature of organizations and how organizations should be managed.

TQM has been applied to business and industry; and recently has been introduced, experimented and implemented in learning institutions to provide high quality and standards for both industry and educational institutions. Furthermore, some other environmental forces make the need for more effective and better quality of education

more essential, Nina and Maureen (2006). These include a growing environment in terms of student population, increasing competition between schools, high expectations from parents and more flexibility in school programs among others.

TQM approach in education involves not only achieving high quality but also influencing all segments of the educational process such as management, interpersonal relations, material and human resources.

The introduction of total quality management requires a number of changes in educational institutions. First and foremost, change has to occur in the attitudes and activities of the management and all stakeholders. Others areas of concern are the organization and monitoring of the educational process, the evaluation of its results, culture of communication and interpersonal relations.

TQM has been successfully implemented in some secondary schools in Kenya and it has contributed to improvement of the quality of education in those schools. This study sought to determine the extent and practice of TQM in secondary schools in Eldoret East District.

## **1.2 Statement of the Problem**

Different secondary schools in Kenya are run by different managers, resulting in differences in the overall performance of schools, which is measured by the students' performance in KCSE examinations and co-curricular activities. The success of every institution depends on the quality and commitment of its human resources to implement laid strategies (Bitange, Kipchumba, &Magutu, 2010).

On the contrary, poor performance recorded in other schools is a clear indication of the need for constant improvement in the quality of education provided in some of the secondary schools in Kenya. It also means that managers of such schools should embrace change by adopting modern management practices, in particular, TQM. The extent and practice of Total Quality Management in a school determines the level of teamwork, quality of education, continuous improvement and stakeholder participation all of which are ingredients of success.

In an attempt to standardize quality and the management of schools, the Ministry of Education inducts new school managers, among other quality management measures. However, despite having such capacity building measures in place, different schools with the same resources still post different results in national examinations administered by KNEC.

It is with these concerns in mind that this study was conceived to investigate the variations and make recommendations to address the above mentioned issues. The study examined the extent and practice of TQM in Secondary schools in Eldoret East District.

### **1.3 Purpose of the Study**

The overall aim of this study was to evaluate the extent to which Total Quality Management principles are practiced in secondary schools in Eldoret East District.

### **1.4 Objectives of the Study**

The specific objectives of the study were to:-

1. Determine the role of training in the implementation of Total Quality Management;



2. Investigate the role played by the Heads of Departments in the improvement of Quality and Standards in secondary schools;
3. Examine challenges facing the implementation of Total Quality Management in secondary schools.

### **1.5 Research Questions**

The study was guided by the following research questions:

1. What is the role of training in the implementation of Total Quality Management practices?
2. What is the role of Heads of Departments in the improvement of quality and standards in schools?
3. What are the challenges facing the implementation of Total Quality Management practices in secondary schools?

### **1.6 Justification of the Study**

The Ministry of Education has adopted TQM as one of the pillars to ensure quality in schools. This has led to a shift from inspection to the creation of Quality Assurance and Standards Offices following the ISO certification in 2007. There is need to assess the extent to which the new management tool is being implemented so as to ascertain whether there are any significant results. In Eldoret East District for example, there is a wide discrepancy in the performance of various schools, creating the need to assess the extent to which TQM principles are practiced in schools (KCSE analysis, 2012).

The study generated information that is useful to various stakeholders. The information will be useful in restructuring of education in Kenya following its ISO certification. The Ministry of Education will identify and address the challenges

facing school managers in the implementation of Total Quality Management. This will help the Ministry of Education and the Quality Assurance and Standards officers during the process of re-designing the training programmes for capacity building of the school managers.

The study also confirms the need for the Ministry of Education to factor in resources for capacity building of various stakeholders particularly teachers in the annual budgets so as to improve quality in the entire ministry.

The research findings will be used to strengthen TQM in secondary schools because the researcher will share the findings with the members of the Secondary School Heads Association during the capacity building workshops.

### **1.7 Significance of the Study**

Academic scholars will have a practical view of the implementation of Total Quality Management. Those who wish to further their education will find new information, which will contribute to the building of their scholarly abilities and growth.

The research findings will sensitize the secondary school principals on the fact that good performance in a school is the sum total of many factors. They will endeavor to build a shared vision among all stakeholders, empower teachers and Heads of Departments through training because information is power.

The findings will further help the schools heads to understand the need to adequately induct new teachers so that they can understand the school mission/vision for quality service delivery. Quality services offered by schools will lead to constant improvement of the standards in a school.

The teachers will understand that quality service delivery is very crucial if they have to survive the competitive environment. They will endeavor to do their best so that their students excel in national examinations.

### **1.8 Scope of the Study**

This study was carried out in 15 schools, out of the 45 secondary schools in Eldoret East District in the larger Uasin Gishu County in Rift Valley Province. The study focused on 150 respondents sampled from the 15 schools in Eldoret East. These included the Principals, Directors of Studies and Heads of Departments.

The study covered 5 categories of public secondary schools in Eldoret East District which included: - Girls boarding, Boys Boarding, Mixed Day, Mixed Boarding and Mixed Day and Boarding schools.

The study specifically sought to investigate the relationship between Quality Management, performance, training and the challenges facing schools in the implementation of Quality Management.

### **1.9 Limitations of the Study**

The study was conducted in Eldoret East District in Uasin Gishu County. It was limited to Eldoret East District secondary schools. The research findings will however be generalized to all secondary schools in the county and other regions in the country. During the study, the researcher was constrained by lack of literature that had been previously conducted in the County and study area. However, the researcher made use of studies conducted in other study areas and subjects which were of great use and were relevant to the present study.

### **1.10 Assumptions of the Study**

The study was based on the assumptions that:-

1. All managers in secondary schools have been trained and are aware of what is expected of them as managers.
2. All stakeholders in schools desire to improve the quality of services offered and products.
3. There are challenges experienced by school managers in performance management.
4. A shared vision and teamwork are important for quality improvement and customer satisfaction.

### **1.11 Theoretical Framework**

The theoretical basis for this study is derived from the systems theory of organization by Trist and Bamforten (1951). The theory recognizes the purpose, pieces and relationships that maximize or strangle a system. It emphasizes the interdependency of the different parts, which make up a system. This interdependence yields energy. The sub-parts function as a system as opposed to operating alone (Swanson and Holton, 2009).

In the context of the study, a school is made up of students, teachers, support staff, a head teacher, Board of Governors, buildings and equipment. They all interact with each other in a social system. Within a school are sub-systems like classrooms, pupils' friendships, tasks to be performed, etc. All these interact to define and chart the character of a school (Nyongesa, 2007). All these parts have to work together to produce results that lead to the achievement of a school's mission, vision goals and objectives.

Schools, like other organizations, are always in constant exchange with the larger society (Oso and Onen, 2009). It is the interaction between the various components of a school that will determine the level of teamwork, customer satisfaction, quality improvement, shared vision and academic performance. These are the major components of Total Quality Management. The scenario described above points to the need to determine the extent and practice of Total Quality Management in secondary schools in Kenya.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter analyzes documented literature on Total Quality Management and education so as to identify gaps to be filled. The researcher relied on primary sources of information like journals, committee's reports, dissertation and theses, conference papers and secondary sources like textbooks and the Internet.

#### 2.1 The Concepts of "Quality" and "Total Quality Management"

##### 2.1.1 Quality

Quality is difficult to define and is an elusive concept, mainly because it is a dynamic idea. Pfeffer and Coote (1991) have even described it as '*a slippery concept*'. It is slippery because it has such a variety of meanings and the word implies different things to different people.

There are various well-known definitions of quality. Crosby (1979) defines quality as "conformance to requirement" while Juran and Gryna (1980) define quality as "fitness for use". Deming (1986) defines quality as "a predictable degree of uniformity and dependability at low cost and suited to the market". It is more towards quality in operation. Many organizations found that the old definition of quality, "the degree of conformance to a standard", was too narrow. Consequently, they used a new definition of quality in terms of "customer focus". It is reported that many companies had initially concentrated all their efforts on improving internal processes with little or no regard for the relationships between those processes and the organization's ultimate customers (Brigham 1993). This failure to include the customer focus had resulted in companies struggling hard to survive.

This study chooses to adopt the definition put forth by The Ministry of Education (2007) ISO 9000 which looks at quality as a degree of excellence, the extent to which something is fit for its purpose. It is an integrated approach by management to focus all functions and levels of an organization on quality and continuous improvement.

There are a number of researchers who have formulated frameworks for quality improvements (Johnson, 1993). These frameworks are given titles such as Continuous Quality Improvement (CQI), Strategic Quality Management (SQM) or Total Quality Management (TQM), the latter being the focus of this study (Johnson, 1993).

Developments in products and technologies have driven companies and organizations in the world to search for new strategies and structures of performance. Decreasing markets, increasing demands, changed customer attitudes, regulations, as well as the growing global competition in recent years, make up the causes of change in the markets that companies and organizations are competing against. Consequently, many organizations including learning institutions focus on quality of products and services to gain competitive advantage.

Oakland (1993) highlights that the reputation enjoyed by an organization is built by quality, reliability, delivery and price. Quality is the most important of these competitive weapons. He adds that quality is used to signify “excellence” of a product. Oakland (1993) summarizes quality definitions based on the way it has been expressed by other authors as follows: “Fitness for purpose or use”, Juran and Gryna (1980), “The totality of features and characteristics of a product or service that bears on its ability to satisfy stated or implied needs”, BS 4778, Quality Vocabulary (as cited in Oakland, 1993), “Quality should be aimed at the needs of the customer,

present and future”, Deming(1986) and “Conformance to requirements” – Crosby (1979)

The management interest in quality is not new but using quality as a key element in the battle for competitive advantage is a recent development. Deming (1986) asserts that after the industrial revolution and the computer revolution in the beginning of the 1980s, we are now in the midst of a quality revolution.

Surveys conducted by various organizations have revealed an increase in quality movements. These include the movement best known as Total Quality Management (TQM). This has been widely acknowledged as a major innovation in management theory (Ishikawa, 1985). The approach to or the philosophy of Total Quality Management is, however, not obvious. Even Deming (1986) acknowledged that he did not know what it meant precisely. There are a number of reasons for this ambiguity. The first problem is to define the concept quality. Secondly, the large variation in activities, practice, and techniques renders it hard to define what Total Quality Management really means. Knutton(1994) claims that even though the introduction of Total Quality Management may be similar in different organizations, organizations may have very different ways of working with Total Quality Management.

### **2.1.2 Total Quality Management (TQM)**

Organizations are the structures which have been created to achieve defined objectives. To attain their objectives, organizations need to interact with many environmental factors. For this reason, they cannot be thought of as separate from the outside world, commonly referred to as a global village. To maintain their existence, organizations should monitor the changes and adapt themselves to the developments



in the environment. This has led to stiff competition between various organizations in an effort to outsmart one another and obtain a niche in the market (Nyongesa, 2007).

One of the emerging philosophies in Quality and Management concepts is Total Quality Management, TQM. According to Nyongesa (2007), an organization needs to satisfy its customers if it wants to survive. Due to this, every organization seeks to improve the quality of products and services offered. Technological advancements have brought about the removal of barriers all over the world and it has become necessary for organizations to improve performance to compete with the rest of the world. To this end, Total Quality Management (TQM) is an essential tool for organizations to improve themselves and to keep up with the changes.

Krietner (2000) defines Total Quality Management as the creation of an organization culture committed to the continuous improvement of skills, teamwork, processes, products and services, service quality and customer satisfaction. At its core, Total Quality Management (TQM) is a management approach to long-term success through customer satisfaction. In a TQM effort, all members of an organization participate in improving processes, products, services and the culture in which they work.

TQM has been defined as a strategic architecture requiring evaluation and refinement of continuous improvement practices in all areas of usefulness. Corrigan (1995) gives a definition with an emphasis on customer satisfaction that, TQM is a management philosophy that builds a customer-driven, learning organization dedicated to total customer satisfaction through continuous improvement in the effectiveness and efficiency of the organization and its processes.

According to Kaufman (1992), Total Quality Management provides what is required as judged by the client. It is accomplished through everyone in the organization being

committed to achieve results, a passion for quality and decisions based on performance data. TQM emphasizes that it is important for all elements to fit together to turn raw materials into the products and deliverables that satisfy clients. Customer satisfaction is the result most addressed by TQM (Crosby, 1979).

It can be seen from the above definitions that TQM describes two main notions, that is, continuous improvement and the tools and techniques/methods used. In general, TQM encompasses many management and business philosophies and its focus gets shifted, based on the scenario where TQM is applied. Whether it is in industry or education, TQM philosophy revolves around the customer (Crosby, 1979).

The study therefore adopts the definition provided by ISO 8402, (1994) stating that TQM is a philosophy for managing an organization in a way that enables it to meet stakeholders' needs and expectations efficiently and effectively without compromising ethical values. It is management by philosophy focused on requirements of customer satisfaction, seeks participation of all employees and aims at long-term success (GOK, 2007).

According to Capezio and Morehouse (1993), TQM is comprised of the following concepts:

*Total:* It expresses the integration or the participation of all the people who take part together in the processes of production or service. The “total” of TQM is underlining the continuous development enterprise including everybody and everything in an organization.

*Quality:* In the context of TQM quality can be defined as “meeting the wishes and expectations of customers in an ideal economical level and in a most suitable manner”

or as “a dynamic state that is meeting or exceeding customers' requirements, needs, expectations and desires”. In TQM, the quality improvement process should begin and end with the customers.

*Management:* As a more comprehensive concept, “management” contains the other two components. It may not be possible to have the desired quality without good management and leadership. As in the total concept, the concept of management in the TQM includes everybody, because everybody is the manager of their responsibilities whatever their roles, positions and status in the organization.

In TQM, the job of management is not supervision, but leadership. Rather than focus on outcome (management by numbers, work standards, meet specifications, zero defects, appraisal of performance), leadership should be put in place.

Capezio and Morehouse, (1993), further argue that companies with TQM are focused on the systematic management of data in all processes and practices to eliminate waste, and pursue continuous improvement. In TQM, the responsibility for quality is located in both the individuals and team through some evaluatory and developmental processes. This represents an approach to quality assurance more congruent with the structures and ethos of educational organizations than many of the more mechanistic and hierarchical processes (McCulloch, 1993).

TQM is therefore a strategy for improving business performance through the commitment and involvement of all employees to fully satisfy agreed customer requirements at optimum costs through improvement of products and services, business processes and people involved.

## **2.2 The Evolution of Total Quality Management**

The concept of quality has existed for many years, though it's meaning has changed and evolved over time. In the early twentieth century, quality management meant inspecting products to ensure that they met specifications. In the 1940s, during World War II, quality became more statistical in nature. Statistical sampling techniques were used to evaluate quality, and quality control charts were used to monitor the production process.

In the 1960s, with the help of so-called "quality gurus," the concept took on a broader meaning. Quality began to be viewed as something that encompassed the entire organization, not only the production process. Since all functions were responsible for product quality and all shared the costs of poor quality, quality was seen as a concept that affected the entire organization.

The meaning of quality for businesses changed dramatically in the late 1970s. Before then quality was still viewed as something that needed to be inspected and corrected. However, in the 1970s and 1980s many U.S industries lost market share to foreign competition. In the auto industry, manufacturers such as Toyota and Honda became major players. In the consumer goods market, companies such as Toshiba and Sony led the way. These foreign competitors were producing lower-priced products with considerably higher quality.

To survive, companies had to make major changes in their quality programs. Many hired consultants and instituted quality training programs for their employees. A new concept of quality was emerging. One result is that quality began to have a strategic meaning. Today, successful companies understand that quality provides a competitive

advantage. They put the customer first and define quality as meeting or exceeding customer expectations.

Since the 1970s, competition based on quality has grown in importance and has generated tremendous interest, concern, and enthusiasm. Companies in every line of business are focusing on improving quality in order to be more competitive. In many industries quality excellence has become a standard for doing business. Companies that do not meet this standard simply will not survive. As a result, the importance of quality is demonstrated by national quality awards and quality certifications that are coveted by businesses e.g. the annual company of the year awards. The term used for today's new concept of quality is Total Quality Management (TQM).

### **2.3 Components of Total Quality Management**

Neves and Nakhai (1993) describe the basic tenets of TQM which are as follows: "long-term perspective, customer focus, and top management commitment, systems thinking, training and tools in quality, increased employee participation, development of a measurement and reporting system, improved communication between management and labour, and continuous improvement".

The major components of TQM can be summarized as follows:

**Leadership:** The most difficult stage of TQM is to create a team spirit and to coordinate employees' efforts to a certain target. At this point, there is a need for a strong leadership. The aim of leadership should be to improve the performance, to improve quality, to increase output, and to simultaneously bring pride of workmanship to people. Put in a negative way, the aim of leadership is not to find and record failures of men, but to remove the causes of failure: to help people do a better job with less effort (Deming, 1986). It is the managers' leadership ability that creates

the greatest effect on the performance and commitment of employees (Genç and Halis, 2006). Strong leadership and also organizational culture have mutual influence on the development of TQM policies and behaviours (Waldman, 1993). TQM strategies are the best suited to educational purposes but there are deep, often conflicting, cultural processes that can frustrate its introduction (Newby, 1999).

**Customer satisfaction:** A customer can be any person or group that receives products or services from another person or group (Johnson, 1993). In TQM, customer satisfaction is viewed as the criterion of quality. So, the needs of the customer should be determined to achieve a high level of quality. All the stakeholders in the processes of service or production, or the ones that are affected by the results of these processes can be considered as customers (Weaver, 1995). There are internal and external customers in TQM. External customers are people and institutions outside school that receive, use or are affected by the outputs of the school system. Parents, community at large, colleges, vocational schools, businesses, government and industry can be deemed among these external customers. Internal customers are within-school stakeholders such as teachers and students (Munoz, 1999). In a market oriented environment, and under the pressures of stakeholders, “delighting the customers” is a rule for the survival of organizations in the long-run (Sahney S., et al 2004).

**Education:** Education is an important component of TQM. As the quality leaders, educational administrators are responsible for educating their staff. They should act as a coach and teacher and provide their staff with necessary training and resources to carry out their duties as the parts of the quality system. Weaver (1995) further argues that the administrators themselves are the ones who should be trained first.

**Continual improvement:** This is among the main principles of quality. Continual (even small) improvements can amount collectively and steadily to considerable gains in quality and reduction of costs (Deming, 1986). TQM notion emphasizes as to how to improve each process of quality. Continual improvement requires well-defined targets, criteria and measurements (Aksu, 2002). The continual improvement principle of TQM is based on the idea that every new day should not be the same as the previous day. A continual change and improvement is the subject of TQM. Continual improvement principle views the human beings as dynamic organisms that are open to changes (Genç and Halis, 2006). Continual improvement concept which has been described as kaizen by the Japanese (Halis, 2004), has transformed the static management understanding into an active state (Kavrakoğlu, 1998).

**Involvement:** An organization should utilize the creative powers and mental abilities of all stakeholders and employees and they all should be involved in the quality process. Organizations can produce total outcomes beyond what is the expected level, due to the synergistic power which comes out of the involvement of all stakeholders (Halis, 2004). Everyone's involvement in TQM is important for quality improvement and motivation of employees (Yatkin, 2003).

**Teamwork:** High-level managers' efforts are not enough to produce the best product or service. All working people have to cooperate with each other (Weaver, 1995). For organizations to realize their objectives and to be strong and effective, they should give importance to teamwork depending on harmony and cooperation among workers.

**Data focused work:** All the quality studies in TQM are based on the practices containing empirical data and statistical analysis. Gathering data and analysis is an inseparable part of the TQM. Gathering and analyzing data is not sufficient to be an

effective quality leader. A supervisor is an auditor of failure and an analyzer of the numerical data while a quality leader listens and learns studies and understands and works to improve the system (Deming, 1986).

#### **2.4 Total Quality Management in Education**

As a modern management approach, TQM can be used successfully in educational organizations that are mainly focused on raising the potentials of students to the highest level (Croker, 1996). Recent researches on TQM have brought a widely updated plan for educational reforms and modernization of educational organizations. The TQM principles have broad applications in educational organizations and have produced desirable outcomes. With these applications, school improvement has become a continual process that has created an environment characterized by unity, change and trust (Terry, 1996). There is a considerable proximity between the principles of TQM and the principles of effective schools (Lezotte, 1992). The practice of TQM at schools has provided a perspective for looking at the handicaps facing effective schools, and a tool to remove the obstacles in the way of effective schools. In this aspect, the principles of TQM are appropriate for educational settings.

As a human focused approach, TQM can make important contributions to the increase of quality of education and the improvement of educational organizations. As, both the inputs and outputs of the educational organizations are human beings, and human beings are the main actors at all levels and in all processes of these organizations, without the satisfaction of human beings (both as customers and providers), it is very hard to ensure the effectiveness of educational organizations (Terry, 1996).



As the starting point of the education process, secondary schools are important for the quality process and the effectiveness of the education system. At the secondary school level, the values are instilled that ensure socio-cultural identity and continuity, the foundations of human development are laid that will affect an individuals' whole life. Basic attitudes and behaviors are taught that will impact on a healthy social life. So, secondary schools have a fundamental impact on the life quality of individuals and societies. Because of these reasons and the successive and continuous nature of the education process, secondary schools deeply affect the higher education through their products (Mutua, 1997).

Determining the problems and the obstacles in the way of successful TQM implementations, and to take necessary measures to remove these obstacles are important factors for the effectiveness of secondary schools and in general for the whole education system. For this reason, it is necessary to continually check the quality process and control the success of practices (GOK, 2007).

### **2.5 Barriers in the Implementation of TQM**

Sallis, E. (2002) identifies various barriers to the successful implementation of TQM as discussed in this section. The author acknowledges that TQM is hard work. It takes time to develop a quality culture. By themselves hard work and time are two of the most formidable blocking mechanisms to quality improvement. TQM needs a champion in the face of the myriad of new challenges and changes facing education. Quality improvement is a fragile process. Cultures are essentially conservative and homeostasis is the norm. The staffs in any organization are most comfortable with what they know and understand. However, to stand still while competitors are improving is a recipe for failure.

Sallis (2002) further argues that if TQM is to work it must have the long-term devotion of the senior staff of the institution. They must back it and drive it. Senior management may themselves be the problem. They may want the results that TQM can bring, but be unwilling to give it their wholehearted support. Many quality initiatives falter because senior managers quickly return to traditional ways of managing. Fear by senior managers of adopting new methods is a major barrier. If senior management do not give TQM their backing there is little that anyone else in the organization can do.

The sheer volume of external pressures also stands in the way of many organizations attempting TQM. Although quality programmes are introduced with considerable publicity, too often they can be overtaken and submerged by other initiatives. There is a need to ensure that quality always has an important place on the agenda of an organization. This is where strategic planning plays such an important role. If TQM is firmly a part of the strategic role of the institution, and if there are good monitoring mechanisms in place, then there is a good chance that quality will keep a high profile. This makes it harder to ignore, and increases the chances of it being taken seriously (Deming, 1986).

The strategic plan can help staff understand the institution's mission. It helps to bridge gaps in communication. There is a need for staff to know where their institution is going and how it will be different in the future. Senior managers must trust their staff sufficiently to share their vision for the institution's future. Visions are often not shared because of a fear of a loss of status and disempowerment by managers. When coupled with a fear of delegation by managers, this can make quality development

nearly impossible. Managers have to be able to let their staff take decisions and be willing to see them make honest mistakes (McCulloch 1993).

The strategic plan is therefore an avenue to the realization of total quality management practices through planning, implementation of the plans, monitoring and evaluation of programmes which will lead to continuous improvement in an organization. With such programmes in place there is bound to be an improvement in the quality of service delivery.

A potential problem area in many institutions is the role played by middle management. They have a pivotal role because they both maintain the day-to-day operation of the institution and act as one of its most important communications channels. They can often block change if they have a mind to or they can act as the leaders of teams spearheading the impetus for quality improvement. Middle managers may not define their role as one of innovation unless senior management communicates to them their vision of a new future. Senior managers must be consistent in their behaviour when advocating and communicating the message of quality improvement. They cannot say one thing and do another and then expect to engender enthusiasm among their staff or loyalty and commitment in their middle managers. They have to persuade others that new working methods will pay dividends.

Barriers to quality are not the sole prerogative of managers (Deming, 1986). Many staff fear the consequences of empowerment, especially if things go wrong. They are often comfortable with sameness. They need to have the benefits demonstrated to them. For this reason TQM must avoid being about nothing but jargon and hype. This

can easily lead to a loss of interest and to skepticism and cynicism, and to the belief that nothing makes any difference.

Many of the barriers to TQM involve an element of fear and uncertainty. Fear of the unknown, of doing things differently, of trusting others, and of making mistakes, are powerful defense and resistance mechanisms. Staff cannot give of their best unless they feel that they are trusted and their views listened to. Deming (1986) argues that it is essential when undertaking the quality revolution to 'drive out fear', and it is imperative to take this message seriously when building a quality institution. This is because human beings resist change due to fear of the unknown.

## **2.6 Total Quality Management in Secondary Schools**

An organization needs to provide satisfaction to the customers if it wants to survive, Nyongesa, (2007). In a school setting, parents, teachers and students must be satisfied with the quality of education offered in school. To do this, official personnel must be dedicated to quality and productivity improvement. This means the administration learns how to manage quality and must have a comprehensive quality policy in guiding the personnel towards quality improvement. TQM in a school is the overhaul of all the areas of an organization by identifying those areas which need improvement such as examination, retention, dropouts and enrolment (Nyongesa, 2007).

In a school setting, the quality of students and services (teaching-learning process) is very important for both employers of graduating students and schools. Quality must be taken into account and be controlled in all departments and activities in order to achieve corporate quality performance. There must be an effective leadership and

teamwork with an understanding commitment and willingness to implement changes to improve quality performance by using detection and prevention strategies.

Each school has a public and must therefore identify customer requirements and satisfy them by constantly delivering the desired product or service.

### **2.6.1 Total Quality Management and the Education Sector in Kenya**

The concept of TQM began in the corporate world. However, due to the changes taking place in the education sector today, e.g. ISO certification, the concept has been adopted by the Ministry of Education and by extension the secondary schools for purposes of quality improvement in education. The Ministry of Education is a key ministry in the government of Kenya and is responsible for a large number of institutions, enforcing and implementing educational policies (GOK 2005).

Quality improvement has evolved in the education sector over the years. In the 1980's and 1990's quality control was done by the inspectorate. Inspectors were appointed by the Minister for Education to inspect schools for purposes of maintenance of educational standards and compliance to regulations (GOK, 1968). The system of inspectors has since changed to Quality Assurance and Standards Officers. These officials work with managers of institutions to ensure that quality is maintained in schools. With the Quality Assurance and Standards Officers in place, there is a new emphasis on improvement in the quality of education offered in schools, improvement index by schools in national examinations like the Kenya Certificate of Secondary Education, quality grades attained by students and value added progress. All these are aimed at improving quality in education.

In a school set up, the principal is in charge of quality and standards of products and services. To achieve this, the principal works with the Heads of Department and all

stakeholders. Some schools have gone ahead to appoint internal quality assurance and standards officers. The officer is responsible to the principal for quality assurance and improvements in the school (GOK, 2007).

### **2.6.2 Management and Planning of Education and Training in Kenya**

The Ministry of Education in Kenya is charged with the responsibility of implementing government policy on education and training. It has the overall responsibility to manage all aspects of education and training (Sessional Paper No. 1 of 2005). Other partners include ministries of local government, labour and human resource development in provision education and training though on a comparatively small proportion.

The Ministry of Education has a vision that embraces the wish of all Kenyans “to have globally competitive quality education, training and research for Kenya’s sustainable development” (Ministry of Education Strategic Plan 2006-2011). It is responsible for the education sector policy development planning, development of sector strategies and regulation of the provision of education and training services by other providers.

The management structure of the ministry headquarters include; the minister, two assistant ministers, permanent secretary as the accounting officer and five directors who report to the permanent secretary. The structure at the center includes Semi-Autonomous Government Agencies (SAGAS) responsible for the development and training for example Kenya Education Management Institute(GOK, 2006).

There is a growing involvement of NGOs and the private sector in the provision of education and training services. This has introduced new challenges relating to the

management and co-ordination of the provision of education services. The NGO's and private sector however compliment the work of the Ministry of Education and other government education and training services providers (GOK, 1976).

### **2.6.3 Results Based Management (RBM) in Education**

Results based management means basing all management practices, decision regulation process and activities on results (RBM Training Manual, Ministry of Education, 2007). Results based management focuses on achieving outcomes, measuring performance and reporting performance. The results based initiative is a module for enhancing quality in management.

The dimensions of results based management includes target setting, planning, monitoring and reporting and appraisal. Planning means establishing a shared understanding of what is to be achieved while appraisal means evaluation against pre-determined targets.

Results based management strategies in the Kenya public sector includes performance contracting, the Rapid Results Initiative, Performance Appraisal System, ISO certification, service charters and enhanced strategic planning(GOK, 2007).

### **2.7 Standards**

Standards provide enormous social and economic benefits in all aspects of human endeavor by enabling interoperability, ensuring quality, safety, consistency, uniformity, reliability, economic efficiency, and so forth, across organizational, state, national and international borders.

Johnson (1993) states that in modern business parlance a standard has a very precise meaning, being “a published document which sets out specifications and procedures designed to ensure that a material, product, method or service is fit for its purpose and consistently performs the way it was intended to. Standards permit society to make more effective use of its resources and allow more effective communication among all parties to particular activities, transactions, or processes”.

The National Standards Policy Advisory Committee defines a standard as “a prescribed set of rules, conditions, or requirements concerning definitions of terms; classification of components; specification of materials, performance, or operations; delineation of procedures; or measurement of quantity and quality in describing materials, products, systems, services, or practices”. This definition is still valid today as it was 30 years ago (Crosby, 1984).

### **2.7.1 Types of standards**

[Stephens \(2000\)](#) points out that there are two basic standards namely:

De jure or legal standards, those officially issued by governments or standards bodies such as ISO (International Organization for Standardization) and ANSI (American National Standards Institute).

De facto standards, those not issued by such bodies but nevertheless considered valid standards because they have been widely adopted by a community of users. De facto standards are synonymous with best practices and often result from the practices of specific vendors who dominate a given market. Thus, whatever technical approaches they adopt to a given aspect of information management become, in effect, de facto standards for the entire industry and user community. Such vendors are in a position



to dictate standard practices, regardless of whether any standards-setting body officially endorses them

The International Organization for Standardization (ISO) was founded in Europe in 1947 and is based in Geneva, Switzerland. Its purpose was to facilitate worldwide trade through the development of international quality standards for products and services. ISO is an international agency consisting of 158 member countries including Kenya. By 31<sup>st</sup> December, 2006, ISO had published over 16,455 standards. The ISO 9000 family standard include Four Primary Standards;-

1. ISO 9000: 2005, QMS - Fundamentals and Vocabulary (Dictionary)
2. ISO 9001: 2000, QMS - Requirements
3. ISO 9004: 2000, QMS – Guidelines for performance improvements
4. ISO 19011: 2002, Guidelines on Quality and/or Environment management systems auditing

### **2.7.2 ISO Requirements**

The International Organization for Standardization requirements include:

Setting procedures that cover all processes in the business, Monitoring processes to ensure they are effective, Keeping adequate records and checking output for defects with appropriate and corrective action where necessary, regularly interviewing individual processes and facilitating continual improvement.

### **2.7.3 The ISO 9000 Concept**

The ISO 9000 concept is seen as vehicle towards Total Quality Management. The principal goal of the ISO 9000 standards is to demonstrate quality assurance and develop quality culture. Quality culture refers to the degree of awareness,

commitment, collective attitude and behavior of the organization with regard to quality.

#### **2.7.4 ISO 9000 Standards**

Increases in international trade during the 1980s created a need for the development of universal standards of quality. Universal standards were seen as necessary in order for companies to be able to objectively document their quality practices around the world. Then in 1987 the International Organization for Standardization (ISO) published its first set of standards for quality management called ISO 9000.

The International Organization for Standardization (ISO) is an international organization whose purpose is to establish agreement on international quality standards. It currently has members from 91 countries, including the United States. To develop and promote international quality standards, ISO 9000 has been created. ISO 9000 consists of a set of standards and a certification process for companies. By receiving ISO 9000 certification, companies demonstrate that they have met the standards specified by the ISO. The standards are applicable to all types of companies and have gained global acceptance. In many industries ISO certification has become a requirement for doing business. Also, ISO 9000 standards have been adopted by the European Community as a standard for companies doing business in Europe. In December 2000 the first major changes to ISO 9000 were made, introducing the following three new standards:

Firstly, ISO 9000:2000–Quality Management Systems–Fundamentals and Standards: Provides the terminology and definitions used in the standards. It is the starting point for understanding the system of standards.

Secondly, ISO 9001:2000–Quality Management Systems–Requirements: This is the standard used for the certification of a firm’s quality management system. It is used to demonstrate the conformity of quality management systems to meet customer requirements.

Thirdly, ISO 9004:2000–Quality Management Systems–Guidelines for Performance: Provides guidelines for establishing a quality management system. It focuses not only on meeting customer requirements but also on improving performance.

These three standards are the most widely used and apply to the majority of companies. However, ten more published standards and guidelines exist as part of the ISO 9000 family of standards.

To receive ISO certification, a company must provide extensive documentation of its quality processes. This includes methods used to monitor quality, methods and frequency of worker training, job descriptions, inspection programs, and statistical process-control tools used. High-quality documentation of all processes is critical. The company is then audited by an ISO 9000 registrar who visits the facility to make sure the company has a well-documented quality management system and that the process meets the standards. If the registrar finds that all is in order, certification is received.

Once a company is certified, it is registered in an ISO directory that lists certified companies. The entire process can take 18 to 24 months and can cost anywhere from \$10,000 to \$30,000. Companies have to be recertified by ISO every three years. One of the shortcomings of ISO certification is that it focuses only on the process used and

conformance to specifications. In contrast to the Baldrige criteria, ISO certification does not address questions about the product itself and whether it meets customer and market requirements. Today there are over 40,000 companies that are ISO certified. In fact, certification has become a requirement for conducting business in many industries.

### **2.7.5 ISO 9001 Quality Management Systems**

ISO 9001:2000 is one of the methods and techniques used for measuring service delivery. Other techniques include Total Quality Management (TQM), Customer satisfaction indices, Customer Charter, Business Process re-engineering, balance score card and bench marking.

Certification is a prerequisite in road to success. Therefore the key reasons for the certification are:

- 1) Customer demand
- 2) Lower production costs because of fewer nonconforming products, less rework, lowered rejection rates, streamlined processes and fewer mistakes.
- 3) Competitiveness hence access to new markets
- 4) Internal operational efficiency
- 5) Improved Organizational Credibility

According to Barnes (2000), implementation of ISO 9000 affects the entire organization right from the start. If pursued with total dedication, it results in 'cultural transition' to an atmosphere of continuous improvement. Barnes (2000) further outlines the following 14 essential steps, which are to be followed through in order to implement ISO 9000 quality management system successfully.

- Step 1: Top management commitment
- Step 2: Establish implementation team
- Step 3: Start ISO 9000 awareness programs
- Step 4: Provide Training
- Step 5: Conduct initial status survey
- Step 6: Create a documented implementation plan
- Step 7: Develop Quality Management System documentation
- Step 8: Document control
- Step 9: Implementation
- Step 10: Internal quality audit
- Step 11: Management review
- Step 12: Pre-assessment audit
- Step 13: Certification and registration
- Step 14: Continual Improvement

### **2.7.6 Advantages of ISO 9001 Certification**

It is widely acknowledged that proper quality management improves business, often having a positive effect on investment, market share, sales growth, sales margins, competitive advantage, and avoidance of litigation. The quality principles in ISO 9000:2000 are also sound. Barnes (2000) highlights that ISO 9000 guidelines provide a comprehensive model for quality management systems that can make any company competitive and that implementing ISO often gives the following advantages:

- a) Creates a more efficient, effective operation
- b) Increases customer satisfaction and retention
- c) Reduces audits
- d) Enhances marketing

- e) Improves employee motivation, awareness, and morale
- f) Promotes international trade
- g) Increases profit
- h) Reduces waste and increases productivity.
- i) ISO 9001 provides a common tool for standardization.

### **2.7.7 Problems of ISO 9001**

Wilson (2010) argues that common criticism of ISO 9001 is the amount of money, time, and paperwork required for registration. According to Barnes (2000), opponents claim that it is only for documentation. Proponents believe that if a company has documented its quality systems, then most of the paperwork has already been completed.

Wilson (2010) suggests that ISO standards elevate inspection of the correct procedures over broader aspects of quality and therefore, the workplace becomes oppressive and quality is not improved.

ISO promotes specification, control, and procedures rather than understanding and improvement. Barnes (2000) argues that ISO 9000 is effective as a guideline, but that promoting it as a standard helps to mislead companies into thinking that certification means better quality, undermining the need for an organization to set its own quality standards. This argument in other words states that reliance on the specifications of ISO 9001 does not guarantee a successful quality system.

Although ISO standardization is internationally recognized most consumers are not aware of it. The ISO certification process has a cost implication in terms of time,

money and manpower which increases the cost of production of goods and services. This gives a competitive advantage to a non ISO certified company.

However, the tangible and intangible benefits of a system that has been designed effectively and efficiently will typically outweigh the costs of certification and maintenance (Wilson 2010).

The standard is seen as especially prone to failure when a company is interested in certification before quality. Certifications are in fact often based on customer contractual requirements rather than a desire to actually improve quality. If you just want the certificate on the wall, chances are you will create a paper system that doesn't have much to do with the way you actually run your business, said ISO's Roger Frost. Certification by an independent auditor is often seen as the problem area, and according to Barnes F (2000), it has become a vehicle to increase consulting services. In fact, ISO itself advises that ISO 9001 can be implemented without certification, simply for the quality benefits that can be achieved.

Another problem reported is the competition among the numerous certifying bodies, leading to a softer approach to the defects noticed in the operation of the Quality System of a firm. Abrahamson (1996) argues that fashionable management discourse such as [Quality Circles](#) tends to follow a [lifecycle](#) in the form of a [bell curve](#), possibly indicating a [management fad](#).

### **2.7.8 ISO 14000 Standards**

The need for standardization of quality created an impetus for the development of other standards. In 1996 the International Standards Organization introduced

standards for evaluating a company's environmental responsibility. These standards, termed *ISO 14000*, focus on three major areas as follows:

**Management systems** standards measure systems development and integration of environmental responsibility into the overall business.

**Operations** standards include the measurement of consumption of natural resources and energy.

**Environmental systems:** standards measure emissions, effluents, and other waste systems.

With greater interest in green manufacturing and more awareness of environmental concerns, ISO 14000 may become an important set of standards for promoting environmental responsibility (Genc and Halis, 2006).

#### **2.7.9 Ministry of Education and ISO Certification**

The Ministry of Education has joined other organizations that have excelled in provision of quality service to their customers by becoming ISO compliant. The MOE service charter released in January 2007 gave commitment as far as provision of service is concerned. In his forward to the service charter the then Permanent Secretary, Prof. Karega Mutahi, stated that the charter is aimed at guaranteeing good customer service through creating awareness to both customers and duty bearers on the ministry's mandate (GOK, 2007).

The Ministry of Education became ISO certified in the year 2007 when it was granted the ISO 9000 Standard Certification (ISO 9001-2000 training manual, 2007). The certificate is granted to institutions that have met set criteria of operation



/management standard. This means that schools which fall under the MOE have to embrace TQM practices (GOK, 2007).

#### **2.7.10 ISO Training in the Ministry of Education**

After ISO 9000 certification, the MOE undertook training of supervisors, heads of divisions and sections at the ministry of Headquarters and three officers from each Provincial Education and District Officers on ISO 9000 Quality Management system. The trained personnel would then sensitize the rest of the staff in their respective head office departments, provinces and districts (GOK, 2007).

The training enabled participants to understand how to implement the ISO Quality Management system in the ministry, develop ISO 9000 documentation, be introduced to the concepts of internal audits and appreciate restructuring and organization of the ministry's technical departments and overall structure of the ministry.

### **2.8 ISO and Performance**

According to a study carried out in Taiwan on Performance Management and measurement by Ching – Lin (2004), the findings indicated that there is a positive correlation between ISO 9000 and business performance. The study revealed that the key to success includes four constructs namely the top management support, quality planning, employee involvement and continuous improvement. The research notes that the constructs are a series of a chain rather than parallel components.

Jones (2003) argues that performance management within records management programmes is important to ensure that the programme is running in an optimum way. He notes that this alone is not enough without considering how records management contributes to the performance of an organization as a whole. An efficient and

effective records management programme will bring benefits to the organization. Record keeping is therefore one of the requirements in ISO standards.

## **2.9 Quality Assurance in Education**

The Ministry of Education ISO 9000 (2007) defines quality as a degree of excellence, the extent to which something is fit for its goodness. Quality Assurance is one of the objectives to the directorate of Quality Assurance and standards that determine the degree of goodness or worthiness while expressing success in educational standards (GOK, 2007).

Quality Assurance started as school inspection in America in 1942 where the clergy, school wardens, trustees and citizen committee did the supervision characterized by inspection (Mutua, 1997). Kenya among other countries of the world has put in place structures to maintain the quality and relevance of her education system. She adopted the system of inspection from the colonial government. The colonial government realized that there was a discrepancy between the education offered in the government schools and that offered in missionary schools and other organizations. This led to the introduction of Quality Assurance and Standards in education. The Beecher Commission of 1949 recommended among other recommendations a closer supervision of education systems when it noted that a thorough system of supervision was indispensable for vitality and efficiency of the education system.

The Kenya Education Commission of 1964 also recommended and stressed the importance inspection of schools in order to maintain Quality Education. The commission recommended the creation of an inspectorate unit in the Ministry of Education. The inspectorate has now changed to Quality Assurance and Standards (GOK, 2005).

### 2.9.1 Purpose of Quality Assurance in Schools

The purpose of Quality Assurance and Standards is to establish, maintain and improve educational standards in schools through quality assurance, quality audit, quality control and quality development (Wango, 2009.). Quality Assurance determines the degree of goodness or worthiness while expressing the certainty or success in educational standards.

Quality Audit means taking stock of achievement attained against the set goals or objectives or targets of education and training institutions through objectively written reports. Quality control involves conducting regular assessment/ inspection with a bid to ensuring that high educational standards are maintained and sustained.

Quality development involves the provision of advisory and supervisory services, staff development opportunities, development of teaching and teaching resources, carrying out subject content mastery (Wango, 2009).

### 2.9.2 Challenges facing Quality Assurance and Standards

The tasks carried out by Quality Assurance and Standards include assessment schools, monitoring and evaluation of curriculum implementation, co-coordinating capacity building programmes, recruitment of students to teacher training programmes among others. According to a Quality Assurance and Standards report by the DQASO, Eldoret East District, Quality Assurance and Standards is faced with challenges which include the following:-

**Inadequate budgetary allocation** for activities to run smoothly: Adequate financing is required to enable Quality Assurance activities to run smoothly. There is inadequate budgetary allocation to the directorate of quality assurance and standards.

**Lack of transport:** This is because there are few vehicles and the few available are not well maintained. This makes mobility of the officers to the fields is difficult.

**Poor motivation and job dissatisfaction:**

The frustrations experienced by quality assurance and standards officers make them to lose morale thus job dissatisfaction. Poor terms and conditions of work also contribute to job dissatisfaction. The officers are not given good remuneration packages. Sometimes their salaries are lower than those of the officers they inspect in the field.

**Lack of pre-service and in-service training:** There are no regular in-service courses for updating skills of the quality assurance and standards officers. Coupled with the lack of a definite staff development policy, the problem of inadequacies in skills has arisen.

**There is understaffing of schools:** This is occasioned by the freezing of employment of teachers. Quality and staffing go hand- in- hand. Metobo (2011) in his letter to the editor on the teacher's strike argued that many schools were disadvantaged as far as staffing is concerned. He stated that the strike was about bridging the gap to ensure quality teaching.

Mbindyo (2011) on the same issue argued that the strike was not just about pay but rather it was about employing more teachers to improve the quality of Education in Kenya.

## **2.10 Related Empirical Studies**

The study sought to identify previous studies linking TQM and the education sector. The study found that such a study has not been undertaken before in Kenya, although similar studies have been undertaken in other countries. This section discusses studies

relating to TQM and their importance to the current study.

Carlson, Brian Kenneth (1996) from Rhodes University, South Africa carried out a thesis study which entailed a *Critical Analysis of the Application of Total Quality Management Principles in Two Schools*. This research grew out of his experiences when St. Andrew's Preparatory School participated in a Total Quality Management training programme which highlighted the problems and the benefits of such training. The study was undertaken, therefore, to find out how two other schools - one a high school in Grahamstown and the other a high school in Clarke County, U.S.A. had responded to similar training. The research findings indicated that Total Quality Management training had a positive impact on the participating schools but that there are problems associated with its adaptation for education. Given the necessary leadership commitment, however, these problems are not insurmountable. The study therefore recommended that Total Quality Management should be adopted to contribute towards the restructuring of education in South Africa and in other countries, a sentiment that has been echoed in the current study. The study by Carlson was significant to the current study in view of its similarity in aim and focus.

Xavier Jantjies (2008) undertook a study titled *The Development of Total Quality Management Organizational Culture for Eden District Municipality*. The main objective of this research study was to investigate how a total quality management organizational culture could be developed at Eden District Municipality. To realize it, the current organizational culture at Eden District Municipality was analyzed to determine what should be done. The research data indicated that Eden District Municipality does not support a total quality management organizational culture. The study recommended that Eden DM should establish a quality department with a

quality manager who will be responsible for the planning and implementation of TQM and that the implementation of TQM should be approached by way of continuous improvement. The present study relates to Jantjies study in that it also recommends adoption of TQM organizational culture as a strategy of improving service provision in schools.

Nunan, Shyma (2003) study titled *A Diagnostic Review of Aspects of Management in an Urban Primary School in Kwa-Zulu Natal with Particular Reference to Perceptions of Quality and Criteria for Total Quality* investigated the diagnostic review of aspects of management, with particular reference to perceptions of "quality" and criteria for "total quality". The study tried to determine the nature and characteristics of TQM in the school through the review of literature, and to determine the elements of TQM that were identified in the school. The study further investigated if the strategies employed in schools are based on TQM principles and if it could be characterized as effective in terms of TQM. The main findings of this study revealed that there are identifiable characteristics of TQM in the school, although most educators could not identify with the philosophy of total quality management as an approach to managing the school. The study also found that the strategies employed by the school's management team could be regarded as effective in terms of TQM. A significant output of the study was the proposal of a strategy that can be used as a guide to improve school effectiveness through TQM. This study is similar to the present study and aided in enabling the researcher gain deeper understanding of the area of study.

Another related study was by KaraniS. (2012) on *Effects of Total Quality Management Implementation on Business Performance in Service Institutions: A case*

*of Kenya Wildlife Services*. The study was guided by the following objectives: To determine the TQM principles used, to obtain the effects of TQM implementation on organizational business performance, to determine challenges in the implementation of TQM. The finding of this study revealed that the role of leadership has a positive impact on TQM implementation. The finding also revealed that KWS practice TQM to a great extent since managerial decisions directly affect the implementation processes. Customer focus was found to be a driving factor that influences the need to adopt TQM. Employee involvement in the implementation of TQM was found to be a major factor that most firms should put into consideration since they are the determinants for failure or success of an organization. The findings also revealed that KWS practiced five TQM tools to a great extent. This implies that KWS has made use of quality tools. The study recommends that emphasis should be put on the incorporation of all the principles of TQM for successful implementation of TQM and for the success of the organization, just as has been recommended by the current study

Ngware (2006) carried out a study entitled *TQM in secondary schools in Kenya. Extent of practice*. The study sought to investigate the extent to which secondary schools in Kenya practiced TQM. The findings indicated that Board of Governors didn't provide the necessary leadership that would promote TQM practices necessary in schools. The study recommended that school management should provide necessary leadership that promotes TQM in a school.

### **2.11 Summary of Literature Review**

Total Quality Management is aimed at improving performance in schools. A school's performance is measured by the results posted in national examinations. The success of any school relies on teamwork where all stakeholders work together to enhance

quality improvement and customer satisfaction. A school will succeed when there is a shared vision and participatory management where the students, teachers and all other stakeholders are involved in decision making.

The Ministry of Education embraced TQM after its ISO certification in 2007. The requirements are outlined in the training manual of 2007 but the disparity in performance of various schools calls for the need to ascertain the extent to which TQM principles are practiced and the challenges facing its implementation. This is why this study was conceived.



## CHAPTER THREE

### RESEARCH DESIGN AND METHODOLOGY

#### 3.0 Introduction

This chapter presents a detailed description of research methodology. Oso and Onen (2009) define methodology as a detailed procedure used to answer research questions. This includes the research design, research methods, sampling, data generation techniques, pilot study, data analysis, presentation and discussion, ethical considerations, trustworthiness of the research and conclusion.

#### 3.1 Research Design

According to Oso and Onen (2009) a research design describes the pattern that the research intends to follow, the plan or strategy for conducting the research.

This study was conducted through a survey. A survey is a present oriented methodology used to investigate population by selecting samples to analyze and discover occurrences (Oso and Onen, 2009). The data was generated quantitatively.

The selected samples in the study were investigated to determine the extent to which TQM was practiced. The survey research design was selected for the study because the research sought to establish the present situation in the management of secondary schools. The method enabled the researcher to collect a large amount of data in an economical way since questionnaires were sent to respondents, thus saving time and money.

#### 3.2 Study Area

The study was conducted in secondary schools in Eldoret East District. Eldoret East District is contained in Uasin Gishu County. The county is subdivided into six Sub-

Counties namely Kesses, Ainabkoi, Kapseret, Turbo, Soy and Moiben. Eldoret East District covers the current Moiben and Ainabkoi Sub-Counties.

The study area was selected by the researcher because there is a big range in performance of the schools in the national examinations as revealed in the annual release of the results of the Kenya Certificate of Examination Certificate examinations. The issue had been a constant agenda in management meetings at the District level attended by the researcher. This created the need for more understanding on the reasons for the differences in performance of the various categories of schools in the district and thus the study on the extent and practice of Total Quality Management in the district.

The district has one tertiary college, the Rift Valley Technical Training Institute, (District Development Plan 1989 - 1993).

### **3.3 Target Population**

Target population refers to members of a group that a researcher is interested in studying. The target population for this study was 450. The study area had 45 secondary schools out of which a sample of 15 schools was randomly selected. The study targeted Principals, Directors of Studies and Heads of Departments in secondary schools.

### **3.4 Sampling Procedure and Sample Size**

At the time of the study there were forty-five public secondary schools in Eldoret East District. The target population was 450 and since the whole population could not be done therefore a sample was necessary. A list of public schools in Eldoret East was prepared in alphabetical order and presented in Appendix E.

The sample was chosen using the stratified random sampling method. This was because the 45 schools fell into five different categories namely; - day mixed schools, boarding mixed schools, day and boarding schools, boys boarding and girls' boarding schools. The sample from each strata was determined using the formula below:

$$n=45$$

$$N=450$$

$$n \times N_{(1-5)} / N \text{ (Kothari , 1990)}$$

$$N_1 \text{ (Day mixed schools)} = 60 \qquad 45 \times 60/450 = 6$$

$$N_2 \text{ (Boarding mixed school)} = 50 \qquad 45 \times 50/450 = 5$$

$$N_3 \text{ (Day and Boarding school)} = 80 \quad 45 \times 80/450 = 8$$

$$N_4 \text{ (Boys boarding school)} = 120 \qquad 45 \times 120/450 = 12$$

$$N_5 \text{ (Girls boarding school)} = 140 \qquad 45 \times 140/450 = 14$$

Source: Survey Data, 2014

The stratified random sampling is used if the population from which a sample is to be drawn does not consist of a homogenous group (Kothari, 2009). The technique was applied in the present study so as to obtain a representative sample and to ensure that all the categories of schools were included in the study. The respondents were distributed as shown in table 3.2 below:-

**Table 3.1: Distribution of respondents**

<b>Category of school</b>	<b>Principal</b>	<b>Director of studies</b>	<b>Head of Departments</b>	<b>Total</b>
Day mixed	2	2	16	20
Boarding mixed	1	1	15	17
Day/ boarding	2	2	12	26
Boys boarding	4	4	32	40
Girls boarding	6	6	35	47
<b>Total</b>	<b>15</b>	<b>15</b>	<b>120</b>	<b>150</b>

Source: Survey Data, 2014

### 3.5 Data Collection Methods and Procedures

Clearance to carry out this study was sought from National Commission for Science, Technology and Innovation (NCSTI) with the help from the School of Human Resource Development, Moi University. The permit obtained was further to secure permission from Eldoret East Education office which provided the list of secondary schools in Eldoret East District. The researcher made a courtesy call to the Eldoret East District Education Officer before proceeding to visit the Principals in secondary schools in Eldoret East District. Before collecting information from any HOD in the secondary schools chosen, the researcher called on the Principals who then introduced the same to the HODs.

The original intention of the researcher was to distribute the questionnaire to some of the HODs after introduction and the rest were to be handed over to the HODs by research assistants. The researcher was very keen and insisted on accuracy while undertaking this exercise. The researcher established good rapport with all the HODs before handling over the questionnaires.

Initially, it had been planned that the completed questionnaires be picked within seven days. However, in some schools it was possible to pick the completed questionnaires after seven days, but in most of the schools, several visits had to be made to collect

the questionnaires. This meant that more trips had to be made to some schools to collect the questionnaires. However, the response rate was 100%.

Questionnaires and document analysis were used as the main tools for data collection. The selection of these tools was guided by the nature of the data to be collected, time available as well as the objectives of the study. Data collection was done in December 2012 – January 2013. The data was collected by the researcher for the purpose of writing a thesis on the extent and practice of Total Quality Management in secondary schools.

### **3.5.1 Questionnaire**

The purpose of using the questionnaire instrument in this study was to collect quantitative data. Kothari(2005) states that the questionnaire is advantageous in that the researcher has no influence on the responses of the participants because they answer in their own words. Kombo& Tromp(2006) support that the questionnaires also enable the researcher to reach many respondents within a short time and the participants also have adequate time to respond freely and give a well thought answer.

Questionnaires which contained structured and unstructured, open-ended and closed-ended questions were used in the study to elicit opinion of the respondents on TQMS in secondary schools. The questions were structured to solicit for data which was focused and relevant to the objectives of the study. Three sets of questionnaires were used: for the Principals; Director of Studies and the Heads of Departments in the selected schools.

The overall aim of the study was to determine the extent and practice of Total Quality Management in secondary schools. The researcher was concerned with the views, feelings and perception of the Principal, Heads of Departments and Directors of

Studies on Total Quality Management. Questionnaires proved to be most effective data collection instruments for the study because the study was concerned with variables, which cannot be directly observed such as views, opinions and perceptions of the respondents. The authors Bell, (1993), Touliatos and Compton (1988) concur that such information can be best collected through the use of questionnaire and document analysis techniques.

Given time, the questionnaire becomes the ideal tool for collecting data. The sample size for the study was large, though the target population was literate and no difficulties were experienced in responding to questionnaire items.

### **3.5.2 Document Analysis Guide**

Document analysis technique was used to obtain data on continuous total quality improvement in schools. Document analysis is a critical examination of public or private recorded information related to the issue under investigation (Oso and Onen 2009). The researcher used the following documents for analysis: TSC Code of Regulations, Kenya Education Sector Support Programme KESSP, 2005 – 2010, amended third KNUT draft of TSC Bill, 2011 and the Teachers Service Commission Act 2011 and District KCSE results analysis report, 2011- 2012.

### **3.6 Validity**

For research instruments to be considered useful, its validity and reliability aspects must be taken into consideration. The validity of the instrument is the extent to which the test instruments are time indicators of what they are purposed to measure (Dooley, 2001). Reliability refers to the consistency of stability of the measurement instrument (Kasomo, 2006). It is the extent to which the instrument yields consistent or systematic results after repeated trials (Mugenda&Mugenda, 1999, Dooley 2001).

The researcher developed the research instruments. For the purpose of validation, assistance was sought from my supervisors and colleagues at Moi University. Criticism, corrections, suggestions and inputs made were used by the researcher to make some adjustments accordingly.

### **3.7 Pilot Study**

The purpose for pilot study is to assist to measure the objectives of the study and to identify omission or ambiguity of some questions (McLeod, 1999). Before the researcher proceeded to the main data collection, a pilot study was carried out in order to test the validity and reliability of the instruments that had been developed.

Piloting was done in five secondary schools in Eldoret East District before the tools were administered to the sample population. Kothari (1985) says that a pilot survey is a replica and a rehearsal of the main survey. Since it is conducted by involvement of experts it brings to light the weaknesses (if any) of the research tools and techniques. Thus from pilot survey, improvements can be effected. The developed research instruments were modified on the basis of the results of the pilot study.

Five Principals, Five Directors of Studies and ten Heads of Department participated in the pilot study. The schools involved did not participate in the actual study. The names of these schools are listed at the bottom of Appendix E.

### **3.8 Data Analysis Procedures**

The researcher used descriptive statistics for analysis of data because of the raw data that was collected and the research tools that were used. The research tools were the questionnaires, and the Likert scale which was included in the questionnaires.

The responses from the questionnaires were analyzed to show certain important aspects of the extent and practice of TQM. These aspects included training in implementation of TQM, improvement of quality and standards in secondary schools and challenges in implementation of TQM.

Descriptive statistics were used to analyze the data. The specific descriptive statistics used to analyze the data were: frequencies, percentages, mean and mode. Data was compiled into frequencies and then converted into percentages and means. This information is presented in tabular form, pie charts and graphs where appropriate in order to facilitate interpretation. Since the study was descriptive, the first step of analysis was coding the questionnaire responses and then calculating the frequency of each response in each individual questionnaire. By so doing, it was possible to find the sum total of weighing views given to each alternative in the questionnaire.

Inferences were made from the tabulated data. The calculated frequencies were used to establish the extent and practice of TQM. Percentages were used to establish the role of training in the implementation of TQM and the challenges facing the implementation of the same in secondary schools.

To assess teacher's attitude towards the importance of training, the Likert scale was used. For every question that was assessed to investigate a particular aspect, there were five possible responses, which were used to depict the attitude of the teacher. Coding was done by allocating a value between 1 and 5 to every response. The responses were: Agree (A), Strongly Agree (SA), Undecided (U), Disagree (D), and Strongly Disagree (SD). The middle value to show neither positive nor negative was three. The responses above were used whereby each response was arbitrary given weight 1 to 5 to the alternative answers. This scale was found appropriate for use in



measuring teacher's attitude towards different aspects of the same phenomena on a single scale (Kothari 1990:106). The conclusion arrived at in this study were based on the responses given by the teachers as pertains to the extent and practice of TQM.

### **3.9 Ethical Considerations**

The researcher ensured that the study was done with the consent of university authority and Ministry of Education. Since this study involved a high degree of confidentiality on the part of the respondents, ethical issues of research were taken into consideration. First the consent to involve the participants in the study was sought. No participant was manipulated or coerced into the study. The researcher communicated to the participants and requested them to be honest in their response to the questions. All participants had the right to remain anonymous. No identification in form of name was to be written on the questionnaires. This was to ensure perfect anonymity. The researcher also communicated to the participants the relevance of the study.

The major ethical problem foreseen by the researcher in this study was confidentiality of the respondents. This was because obtaining a valid sample entailed gaining access to specific lists and files, getting peoples' views on sensitive issues in school management, which is an infringement on the confidentiality of the respondents. To check on this, the researcher sought the consent of the respondents and assured them of confidentiality.

### **3.10 Summary**

This chapter dealt with research design and methodology, which included the introduction of the research design, the study area, sample and methodology of

sample selection, research instruments, data collection methods and procedures, validity, reliability and data analysis procedures.

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND INTERPRETATION

#### 4.0 Introduction

This chapter contains the findings of the investigation that was undertaken with respect to the objectives and research questions raised in chapter one. The data is presented as gathered from the field. The researcher also interpreted and analyzed the given data in this chapter. The findings are mainly reported in percentages, bar graphs, pie charts and tables to make presentation clear and easy for interpretation.

#### 4.1 Response Rate

The number of questionnaires administered to the respondents was 150. All the questionnaires were filled and returned. A response rate of 100 % was achieved and it was adequate for analysis of the findings.

##### 4.1.1 Gender

Question item number one of the Principals' and HODs' questionnaires sought to find out their gender. The analysis of data showed that among the sampled schools, there were six male (40%) and nine (60%) female Principals. For the HODs, sixty-three (46.7%) were male and seventy-two (53.3%) were female. These findings are presented in Table 4.2

**Table 4.2: Gender**

GENDE R	PRINCIPALS		HODs	
	FREQUENCY	PERCENTAGE (%)	FREQUENCY	PERCENTAGE (%)
Male	6	40	63	46.6
Female	9	60	72	53.4
<b>TOTAL</b>	<b>15</b>	<b>100</b>	<b>135</b>	<b>100</b>

**Source: Survey Data, 2014**

#### 4.1.2 Principals Age Bracket

Question item number two of the Principals' questionnaire sought to find out the age bracket of the Principals. The analysis of data showed that none (0%) of the Principals were between the ages 20 – 30 years, six (40%) were between the ages 31 – 40, seven (46.7%) were between the ages 41 – 50 and two (13.3%) were above 50 years of age. These findings are presented as shown in Table 4.3.

**Table 4.3: Age Bracket**

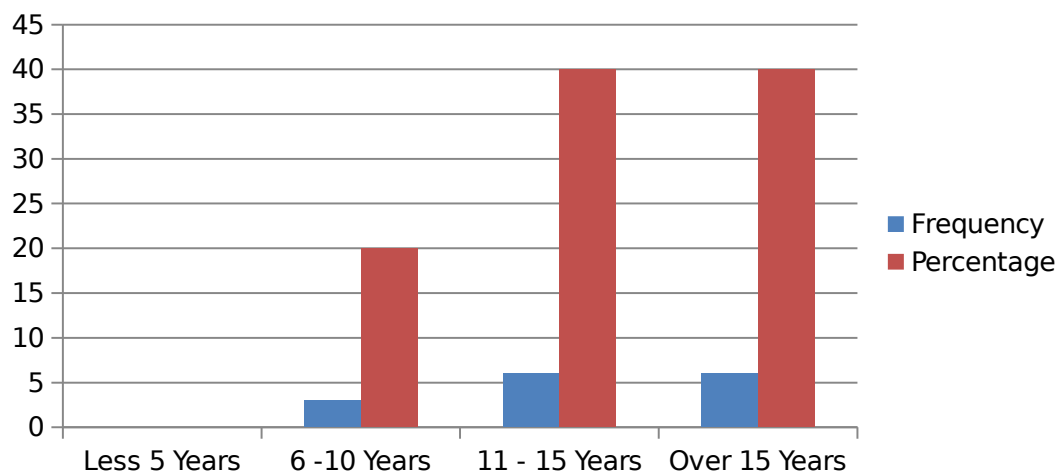
AGE BRACKET (YEARS)	FREQUENC Y	PERCENTAGE (%)
20 – 30	0	0.0
31 – 40	6	40.0
41 – 50	7	46.7
Above 50	2	13.3
<b>TOTAL</b>	<b>15</b>	<b>100.0</b>

**Source: Survey Data, 2014**

#### 4.1.3 Teaching Experience

Question item number three sought to establish the working experience of the Principals. The research findings showed that most of the Principals were experienced: - 20% had taught for between six (6) and ten (10) years, 40% had taught

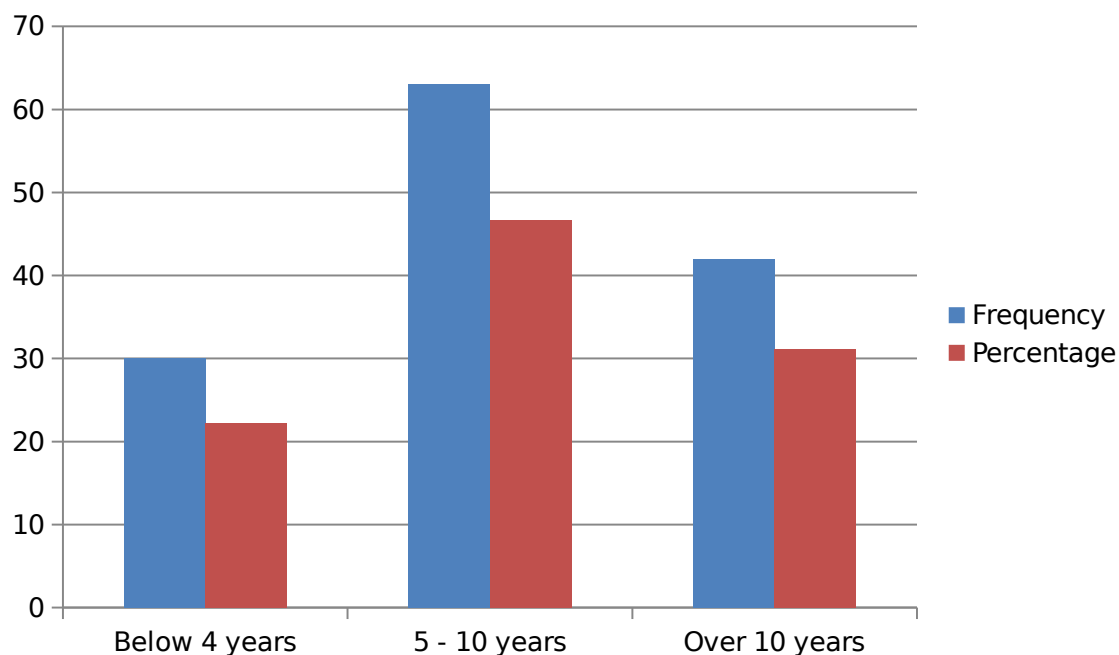
for eleven (11) and fifteen (15) years and 40% had taught over fifteen (15) years, as shown in Figure 4.1.



**Figure 4.1: Principals' Teaching Experience**

**Source: Survey Data, 2014**

The HODs questionnaire also sought to establish the teaching experience of the HODs. Data analyzed revealed that thirty (22.2%) had taught for less than four (4) years, sixty three (46.7%) taught between five (5) and ten (10) years and forty two (31.1%) had taught for more than ten (10) years. This is shown in Figure 4.2.

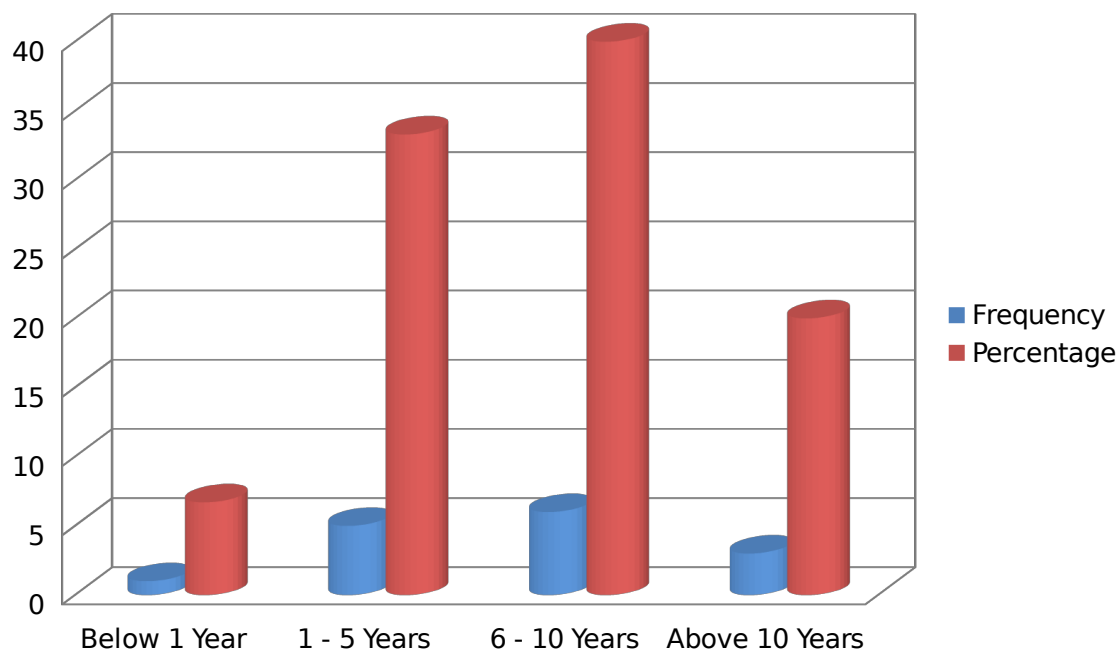


**Figure 4.2: HODs Teaching Experience**

**Source: Survey Data, 2014**

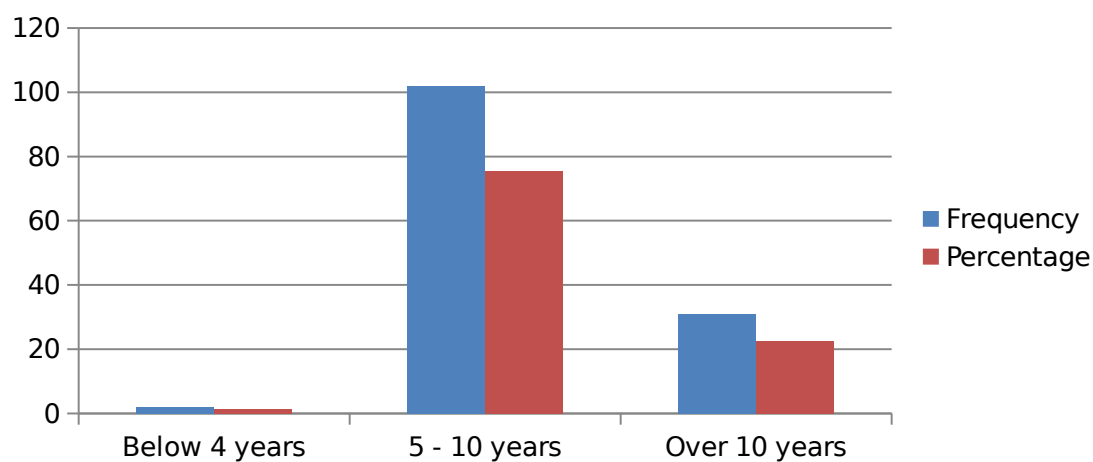
#### **4.1.4 Experience as a Principal**

Question item number four sought to find out from the Principal how long they had served in that position. The research findings showed that most of the Principals had served in the position for more than five years. The research findings revealed that 6.7% had served as Principals for less than one (1) year, 33.3% had served for between one (1) and five (5) years, 40.0% had served for between six (6) and ten (10) years, and 20.0% had served for more than ten (10) years, as shown in Figure 4.3.



**Figure 4.3: Experience as Principal**  
**Source: Survey Data, 2014**

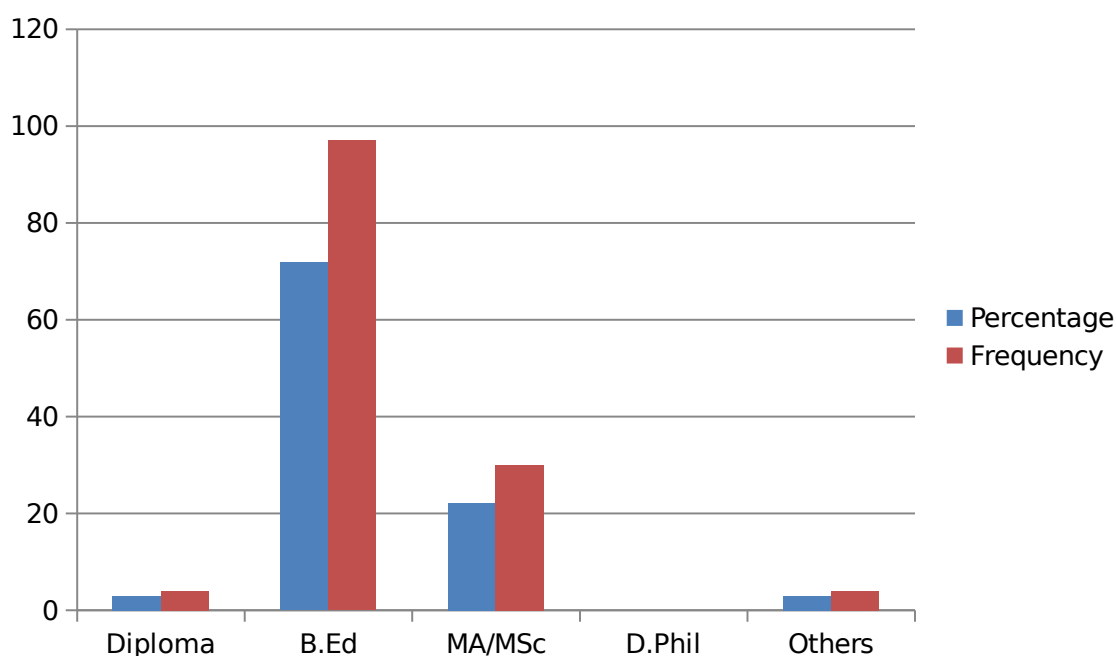
On the HODs questionnaire the researcher also sought to find out the experience the teachers had as HODs. The analysis of data showed that two (1.5%) teachers had experience as HODs for less than four (4) years, one hundred and two (75.5%) had experience as HOD for between five (5) and ten (10) years and thirty one (23%) had experience as HODs for more than ten (10) years. The findings are presented in Figure 4.4.



**Figure 4.4: Experience of HODs**  
**Source: Survey Data, 2014**

#### 4.1.5 Teachers' Professional Qualification

The HODs questionnaire sought to establish the teachers' professional qualifications. The analysis of data showed that four (3%) of the teachers were Diploma in Education holders, ninety seven (71.8%) were holders of Bachelor of Education degrees (B.Ed), thirty (22.2%) were holders of Master of Art (MA) or Master of Science (MSc)degrees. This showed that they had been trained on quality management. The findings are presented in Figure 4.5.



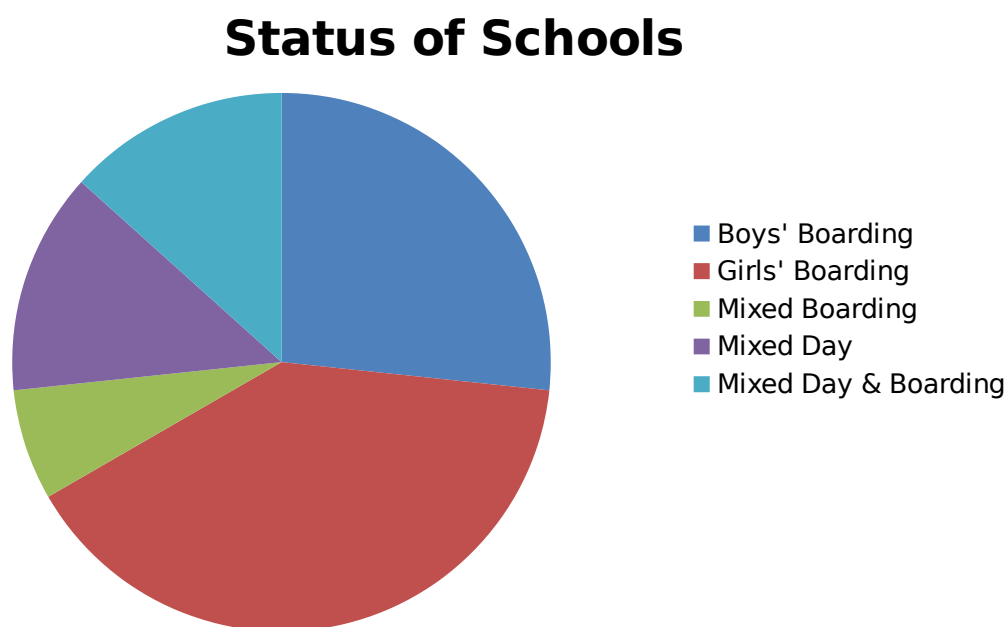
**Figure 4.5: Teacher's Professional Qualification**  
**Source: Survey Data, 2014**

#### 4.1.6 Status of School

Question item number five of the questionnaire sought to find out the status of the school. The analysis of data showed that among the sampled schools, 26.7% were boys' boarding, 40.0% were girls' boarding, 6.7% were mixed boarding, 13.3% were mixed day and 13.3% were mixed day and boarding. This therefore shows that all



categories of schools were represented in this study. These findings are presented in Figure 4.6.



**Figure 4.6: Status of Schools**  
Source: Survey Data, 2014

## 4.2 Importance of Training

### 4.2.1 Management Training and Induction

To determine the role of training in implementation of Total Quality Management in Eldoret East District, the researcher sought to find out if Principals had undergone management training and the HODs had undergone induction. The data analyzed showed that fifteen (100%) of the Principals had undergone management training and One hundred and twenty eight (94.8%) HODs had undergone induction. This is shown in Table 4.4 and Table 4.5 respectively.

**Table 4.4: Undergone Management Training (Principals)**

	FREQUENCY	PERCENTAGE
MANAGEMENT TRAINING	15	100

Source: Survey Data, 2014

**Table 4.5: Undergone Management Training (HODs)**

	FREQUENC	PERCENTAGE
	Y	
INDUCTION	128	94.8

Source: Survey Data, 2014

#### 4.2.2 In house Training

Question item number nine (9) sought to find out if the Principals facilitated for house training for Prefects, HODs, Subject teachers and Board of Governors. 66.7% of the Principals facilitated for prefects, 60% for HODs, and 40% for subject teachers and 6.7 for Board of Governors. These were presented as shown in Table 4.6 below:-

**Table 4.6: In House Training**

	FREQUENCY		PERCENTAGE	
	YES	NO	YES	NO
House Training				
Prefects	10	5	66.3	33.7
HODs	9	6	60.0	40.0
Subject teachers	6	9	40.0	60.0
BOG	1	14	6.7	93.3

Source: Survey Data, 2014

#### 4.2.3 Training Improves Service Delivery

Question item number 10 of the Principals' questionnaire sought to establish the Principals opinion if training helps in improvement of service delivery. Analysis and

interpretation of data revealed that thirteen Principals (86.7%) strongly agreed (SA), and two (13.3%) agreed with the statement. This is shown in Table 4.7 below:-

**Table 4.7: Training in Improvement of Service Delivery**

LEVEL OF RESPONSE	FREQUENCY	PERCENTAGE
Strongly Agree (SA)	13	86.7
Agree (A)	2	13.3
Undecided (U)	0	0
Disagree (D)	0	0
Strongly Disagree (SD)	0	0
Total	15	100

**Source: Survey Data, 2014**

On the HODs questionnaire, the researcher also sought to establish if training was effective in service delivery. Analysis and interpretation revealed that one hundred and fifteen (85.1%) strongly agreed (SA) and twenty (14.9%) agreed with the statement. This is shown in Table 4.8 below:

**Table 4.8: Effectiveness of training for Service Delivery**

LEVEL OF RESPONSE	FREQUENCY	PERCENTAGE
Strongly Agree (SA)	115	85.1
Agree (A)	20	14.9
Undecided (U)	0	0
Disagree (D)	0	0
Strongly Disagree (SD)	0	0
Total	135	100

**Source: Survey Data, 2014**

It can be concluded that Principals and HODs held a positive attitude towards training in improvement of service delivery and also improved quality in management.

Question item number 11 of the Principals' questionnaire sought to establish if training helped prefects, HODs, subject teachers and BOG to understand their roles better. The analysis and interpretation of data revealed that twelve (80%) of the Principals strongly agreed while three (20%) agreed that training helped prefects, HODs, subject teachers, and BOG to understand their roles better. This is shown in Table 4.9 below:-

**Table 4.9: Training helped Prefects, HODs, Subject Teachers and BOG to understand their roles better**

LEVEL OF RESPONSE	FREQUENCY	PERCENTAGE
Strongly Agree (SA)	12	80
Agree (A)	3	20
Undecided (U)	0	0
Disagree (D)	0	0
Strongly Disagree (SD)	0	0
Total	15	100

**Source: Survey Data, 2014**

Question item number 12 sought to establish the need for continuous training and development for the human resource in a school. The data analyzed revealed that fifteen (100%) Principals strongly agreed that there is need for continuous training

and development for the human resource in a school. This is shown in Table 4.10 below:-

**Table 4.10: Continuous Training and Development for the Human Resource in a School**

<b>LEVEL OF RESPONSE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
Strongly Agree (SA)	15	100
Agree (A)	0	0
Undecided (U)	0	0
Disagree (D)	0	0
Strongly Disagree (SD)	0	0
Total	15	100

**Source: Survey Data, 2014**

#### **4.2.4 Quality Management Addressed in Training Sessions**

Question item number 13 sought to establish whether quality management is addressed in most training sessions. On analysis of data, it was established that ten (66.6%) strongly agreed (SA), three (20%) agreed (A), one (6.7%) disagreed (D) and another one (6.7%) strongly disagreed (SD) as shown in Table 4.11 below:-

**Table 4.11: Quality Management Addressed in training Sessions**

LEVEL OF RESPONSE	FREQUENCY	PERCENTAGE
Strongly Agree (SA)	10	66.6
Agree (A)	3	20
Undecided (U)	0	0
Disagree (D)	1	6.7
Strongly Disagree (SD)	1	6.7
Total	15	100

**Source: Survey Data, 2014**

### 4.3 Role of HOD in Quality Management in a School

On the role played by HODs in quality management in a school, the researcher sought to find out certain facts about the role played by the HODs in quality management in schools. Six statements were listed and each Principal and HOD was expected to tick one of the five levels of appreciation about the role of HODs in quality management in a school. The total response at the various levels of response was one hundred percent (100%).

Analysis and interpretation of data revealed that on the level of strongly agree response, fourteen (93.3%) indicated that HODs understand their roles in quality management in a school, fourteen (93.3%) indicated that it is important to consult HODs when making decisions, thirteen (86.6%) indicated that HODs are always supportive in management of the school, ten (66.6%) indicated that appraisals help in service delivery, thirteen (86.6%) indicated that HODs always take the initiative to hold departmental review meetings and eleven (73.3%) indicated that HODs understand the needs of customers and always work towards satisfying them. This is shown in Table 4.12

**Table 4.12: Role of HOD in Quality Management in a School**

N	CRITERIA	FREQUENC	%
O		Y	

1	HODs understand their roles in quality management in the school	14	93.3
2	It is important to consult HODs when making decisions	14	93.3
3	HODs are always supportive in management of the school	13	86.6
4	Appraisals help to improve quality in service delivery	10	66.6
5	HODs always take the initiative to hold departmental review meetings	13	86.6
6	HODs understand the needs of customers and always work towards satisfying them	11	73.3

**Source: Survey Data, 2014**

The HODs had views on their role in quality management. Seven statements were listed and each HOD was expected to tick one of the five levels of appreciation about the value they put in quality management. The total response at the various levels of responses was one hundred percent (100%).

Analysis and interpretation of data revealed that on the level of strongly agree response, one hundred and thirty five (100%) indicated that they held departmental meetings, one hundred and thirty five (100%) indicated quality is an issue in departmental meetings, one hundred and thirty five (100%) indicated that planning and supervision of teacher preparation are important in achieving quality, nine (0.7%) indicated that school administration involved HODs in decision making, one hundred and four (77.0%) indicated that examination analysis helps to check on quality at departmental level, one hundred and twenty eight (94.8%) indicated that record keeping affects quality management in a school and one hundred and thirty five

(100%) indicated that leadership and teamwork are key ingredients of quality improvement in a school. This is shown in Table 4.13

**Table 4.13: Role of HODs**

<b>N O</b>	<b>CRITERIA</b>	<b>FREQUENC Y</b>
1	HODs hold departmental review meetings	135
2	Quality is an issue in departmental meetings	135
3	Planning and supervision of teacher preparation are important in achieving quality	135
4	School administration involves HODs in decision making	9
5	Examination analysis helps to check on quality at departmental level	135
6	Record keeping affects quality management in a school	128
7	Leadership and teamwork are key ingredients of quality improvement in a school	135

**Source: Survey Data, 2014**

#### **4.4 Challenges Facing Implementation of Total Quality Management (TQM)**

Question item number 15 of the Principals' questionnaire sought to find out the challenges facing implementation of TQM in schools. A total of fifteen (100%) responses were received.

Analysis and interpretation of data revealed that twelve (80%) indicated lack of funds, eleven (73.3%) indicated poor motivation and job satisfaction among team players, fourteen (93.3%) indicated lack of pre-service and in-service training, two (13.3%) indicated understaffing, seven (46.7%) indicated resistance to change by major stakeholders and ten (66.7%) indicated role ambiguity. This is shown in Table 4.14.

**Table 4.14: Challenges facing implementation of TQM Practices**



<b>N</b>	<b>CRITERIA</b>	<b>FREQUENC</b>	<b>%</b>
<b>O</b>		<b>Y</b>	
1	Lack of funds	12	80
2	Poor motivation and job satisfaction among team players	11	73.3
3	Lack of pre-service and in-service training	14	93.3
4	Understaffing	2	13.3
5	Resistance to change by major stakeholders	7	46.7
6	Role ambiguity	10	66.7

**Source: Survey Data, 2014**

On the HODs questionnaire, the researcher sought to find out the challenges in implementation of quality management practice. A total of one hundred and thirty five (100%) responses were received. Analysis and interpretation of data revealed that on the scale of strongly agree, one hundred and thirty five (100%) indicated lack of commitment by the management and some staff members, one hundred and thirty (96.3%) indicated organizational culture in the school, five (3.7%) indicated poor documentation, five (3.7%) indicated insufficient training of key team players and eighty (59.3%) indicated ineffective communication. This is shown in Table 4.15.

**Table 4.15: Challenges facing implementation of Quality Management Practices**

<b>N</b>	<b>CRITERIA</b>	<b>FREQUENC</b>	<b>%</b>
<b>O</b>		<b>Y</b>	
1	Lack of commitment by the management and some staff members	135	100
2	Organizational culture in the school	130	96.3
3	Poor documentation	5	3.7
4	Insufficient training of key team players	5	3.7
5	Ineffective communication	80	59.3

**Source: Survey Data, 2014**

#### **4.5 Summary**

Chapter four discussed the presentation, analysis and interpretation of data under the following subheadings: gender, Principals' age bracket, teaching experience, school status, importance of training, role of HOD in quality management in a school and challenges facing implementation of TQM.

## CHAPTER FIVE

### DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter presents discussions and results of the research findings. The discussions are based on the data interpreted and presented in the previous chapter. Conclusions about the findings are also given. In the conclusions the researcher considered what could be done to create a change towards admirable results.

The broad objective of the present study was to investigate the extent and practice of total quality management in secondary schools in Eldoret East District. The summary of the findings, conclusions and recommendations are presented below.

#### 5.1 Summary of the Findings

This section provides a summary of the research findings which are provided in relation to research questions raised in chapter one.

The research study was representative in that all gender for the Principals' and HODs was represented in the study, 40% male and 60% female Principal and 46.6% male and 53.4% female HODs. It was found out that in most of the sampled schools the female teachers were more than the male teachers. Therefore both sexes were presented. These findings are presented in Table 4.2

The study also realized that the teachers were professionally trained and all the Principals (100%) had teaching experience of more than five years and 77.8% of the HODs had teaching experience of more than five years. 3% had Diploma in Education, 71.8% had Bachelors of Education degree and 22.2% had either a Master of Art or Science degree. Therefore the study concluded that all the teachers were well

trained on quality management skills. These findings are presented in Figure 4.2, 4.2 and 4.3 respectively.

### **5.2 Role of Training in the Implementation of TQM Practices**

As regards to the role of training in implementation of TQM and its impact on service delivery, the study revealed that 100% of both the Principals and HODs had undergone management training and induction respectively. Further the study revealed that most Principals held house training for prefects, subject teachers, HODs and a small fraction for BOG. These findings are presented in Table 4.6.

Training was regarded as a tool for improving service delivery. This was because 86.7% of the Principals and 85.1% of the HODs strongly agreed that training improves service delivery. Most Principals (80%) also agreed that training helped prefects, HODs, subject teachers and BOG to understand their roles better. These findings are presented in Table 4.7.

The research study further established that quality management was addressed in training sessions. A large proportion of Principals concurred with this statement. These findings therefore determined that quality management focused on continuous improvement of all processes on all levels and it focused on achieving quality with acceptance and pursuit of continuous improvement as the only useful standard of attaining quality. These findings are presented in Table 4.11.

### **5.3 Role of HODs in the Improvement of Quality and Standards in Schools**

Deductions made from the data collected showed that quality was one of the issues addressed in department meetings. The issue of quality was an essential requirement

for the education sector in Kenya today and therefore HODs in secondary schools had to ensure that it was emphasized during departmental meetings.

The HODs had a positive attitude towards leadership and teamwork as this was a key ingredient of quality improvement in a school. These findings conceded that HODs had a major role to play in spearheading the move towards successful implementation of TQM in secondary schools.

The findings showed that prior preparation was essential in compiling good quality work. The HODs had the responsibility of ensuring that teachers prepared lesson plans before delivering the lessons to students, which would ensure quality delivery and reception from the teacher to the student. The findings also indicated that analysis of examination results helped to check on quality at departmental level.

#### **5.4 Challenges in the implementation of TQM practices in secondary schools**

The research study found out that the implementation of TQM faced many challenges. As much as the teachers were professionally trained and experienced, the responses indicated that lack of commitment by management and some staff members (100%), Organizational culture in the school (96.3%), lack of pre-service and in-service training (93.3%), lack of funds (80%), poor motivation and job satisfaction among team players (73.3%), role ambiguity and ineffective communication (59.3%) were the major challenges in the implementation of TQM practices in secondary schools in Eldoret East District. The findings from the study are presented in Table 4.14 and Table 4.15.

## 5.5 Conclusion

TQM is a necessary recipe for the successes of any organization. However its full realization in secondary schools in Kenya requires considerable efforts from the part of school management and the staff. The study findings revealed that schools recognized the importance of TQM and practiced five tools to a great extent namely: - teamwork, continuous improvement, Training, record keeping and participatory management.

A key finding of the study was the recognition that indeed training was a necessary ingredient towards the attainment of TQM in secondary schools in Kenya. The study observed that training was key in better service delivery in secondary schools in Eldoret East. The study noted that training helped in up scaling the implementation of TQM. When the staff involved is more aware of what is expected of them as service providers, they can work objectively towards achieving the needs of their clients as well as appreciate the need for TQM in secondary schools at Eldoret East.

The study also established that training helps to improve quality in management in secondary schools in Eldoret East because it offers a platform for learning new ideas, knowledge and skills for teachers. This will contribute to continuous improvement in a school. As regards staff capacity building, the study noted that continuous staff capacity building was necessary for the actualization of TQM in secondary schools in Eldoret East. However for this to happen, teachers need to be more open minded and willing to learn.

On the role of HODS the study noted that quality was an essential requirement for the education sector in Kenya today and therefore HODs in secondary schools had to ensure that it was emphasized during departmental meetings, furthermore the study

noted that without top management support, TQM cannot be achieved in any organization. They conceded that HODs had a major role to play in spearheading the move towards successful implementation of TQM in secondary schools.

This study has further established that secondary schools in Eldoret East face a number of challenges that included: lack of commitment by staff, poor organization cultures, lack of training, and lack of team work, poor documentation and records keeping among others that had a significant negative bearing on TQM. These challenges need to be addressed for TQM to be attained in secondary schools. The study noted that team work, timely planning and adequate supervision were necessary to ensure the actualization of TQM. Provision of adequate resources and relevant training would provide a favorable environment for the attainment of TQM at secondary schools at Eldoret East.

The findings of this study can be generalized to address subjects of TQM in secondary schools in Eldoret East and by extension raise awareness in other institutions. It has also made a contribution to the body of knowledge on TQM and Education that if well harnessed could be instrumental in up scaling the implementation of TQM in secondary schools in Kenya. It is in the opinion of the researcher that enormous effort is required in secondary schools in Eldoret East to ensure existing organization practices and culture adequately support and enhance the realization of TQM.

## **5.6 Recommendations**

In view of the findings of the study which are discussed in chapter four, a summary of which is provided in chapter five, the study came up with the following recommendations which if implemented will contribute towards the implementation of TQM in secondary schools in Eldoret East:

Among the key findings of the study, poor organization culture was highlighted as one of the factors that impeded on the implementation of TQM in secondary schools in Eldoret East. This study recommends that Principals and staff of schools cultivate a positive culture of people that are more willing to change and are committed towards achieving the implementation of TQM in schools. For this to be successfully realized, School Heads and HODs should begin by developing a TQM culture which can only be adopted if they lead the other staff by example.

One of the key findings of the study was that poor documentation and record-keeping was among the factors that contributed to the slow pace of implementation of TQM in secondary schools in Eldoret East. This study recommends that schools streamline their records keeping systems to ensure that they support the business processes that schools engage in and provide the necessary evidence to analyze how the school performance is as regard to actualization of TQM. The school management should employ professionally qualified records management staff to take charge of school records.

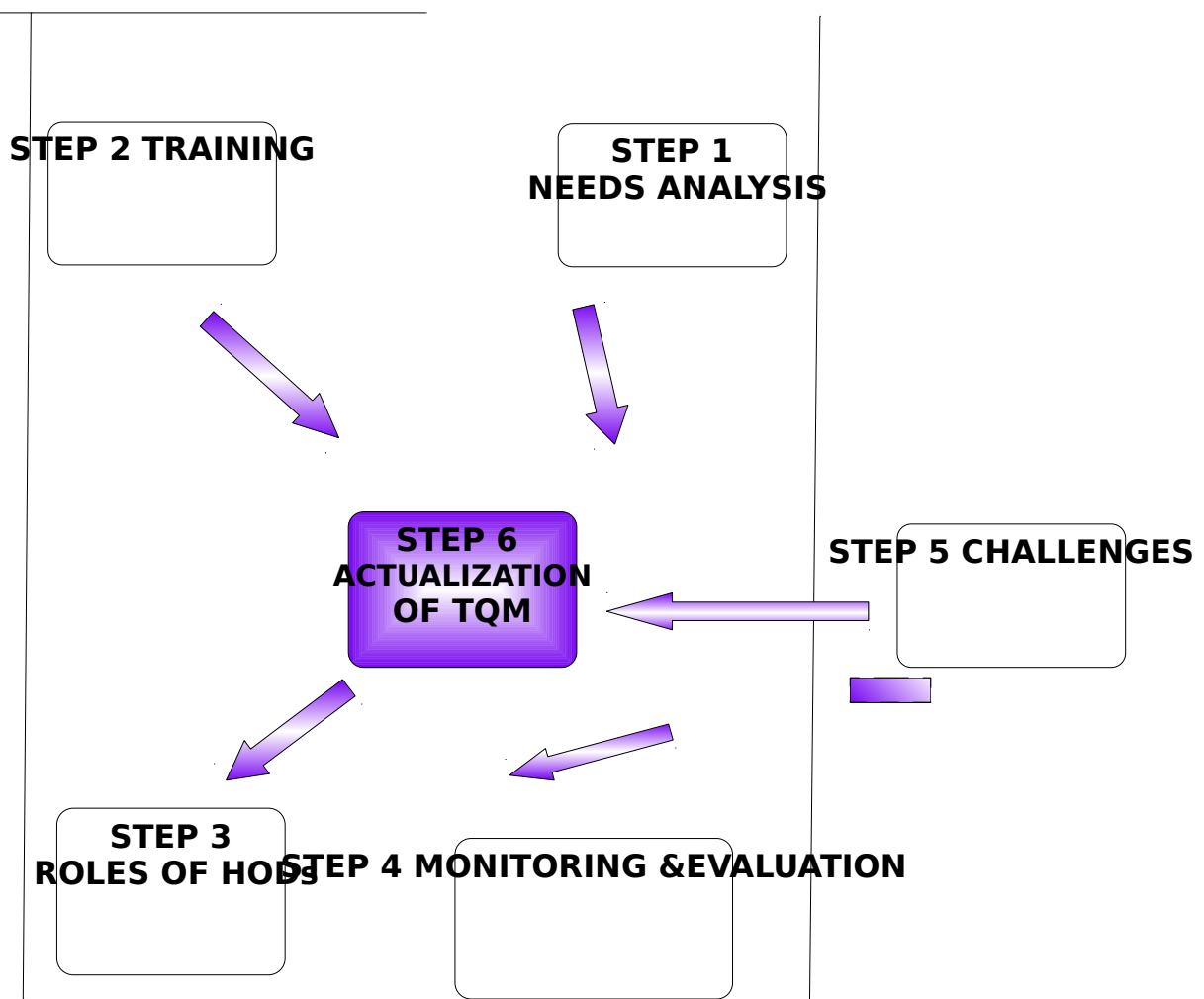
Among the findings of the study, lack of training on TQM was highlighted as one of the key challenges in implementation of TQM in secondary school. School management should ensure that their staffs have continuous training on TQM. More specifically new staff should undergo induction training on the same for them to start work on the right footing. There should be a constant review of the training needs for schools to bridge knowledge gaps which may exist among the staff from time to time. Continuous training helps individuals to remain relevant, cope with challenges and also empowers them to keep abreast with the changes in the work environment.



Schools should therefore factor in adequate finances for capacity building in their annual budgets.

The study proposes a model that could be used to ensure the proper implementation of TQM in secondary schools in Eldoret East. The suggested model presents six stages that secondary schools in Eldoret East would have to go through to ensure there is conducive environment for the actualization of TQM .These stages and requirements are shown in Figure 5.1.

The model has five phases namely: Needs analysis, training, role of HODS, continuous monitoring and evaluation as shown in figure 5.1below:-



**Figure 5.1 Proposed TQM Implementation Framework for Secondary Schools**  
**Source: Survey Data, 2014**

This proposed model values training and adequate supervision from HODS in support of adequate implementation of TQM in secondary schools.

**Step 1- Needs analysis**

The starting point in implementation of TQM is to carry out a needs analysis of the organization. The needs analysis should also be carried out among the staff, students and other stakeholders of secondary schools so as to establish the following:

- i. To establish staff capacity building levels within secondary schools in Eldoret East. It will further examine the knowledge and skills gaps of these staff in TQM
- ii. To identify the needs of the users, staff and stakeholders, of the secondary schools in Eldoret East
- iii. The required resources, Financial and human capital among others, that are necessary for the implementation of TQM secondary schools in Eldoret East.

- iv. To establish policies and procedures put in place in secondary schools in Eldoret East to provide guidelines on implementation of TQM.
- v. Needs analysis should be carried out continuously in view of the dynamic environment.

### **Step 2 –Training**

There should be continuous training on staff as regard to TQM developments. New staff should adequately be inducted on TQM implementation and the management should make known their expectation from the staff. Responsibilities should be clearly spelled out.

### **Step 3- Roles of Heads of Departments**

The HODs have the invaluable role of championing for TQM in their schools.

HODs have a major role to play in spearheading the walk towards successful implementation of TQM in secondary schools.

The HODs also play a paramount role of supervising staff under them to ensure they perform as per required standards.

### **Step 4 -Monitoring and Evaluation**

Continuous monitoring and evaluation is vital for the implementation and the sustainability of TQM in secondary schools in Eldoret east. This therefore requires that record keeping and proper documentation is done in schools. This is vital as it provides the necessary evidence to analyze trends that are crucial for the monitoring and evaluation process.

### **Step 5- Minimization of Challenges**

Challenges are a great impediment towards the implementation and sustainability of TQMS in secondary schools at Eldoret east. It's for this reason that schools should strive to eliminate if not minimize factors that slows down the pace of implementation of TQM in schools such as: lack of commitment, lack of team work, poor documentation and record-keeping among others.

### **Step 6 -Actualization of TQM**

When the above six factors are well factored in as shown in the model, then the actualization of TQM can be achieved in secondary schools at Eldoret East. However other external factors may help upscale the intake of TQM in secondary schools such as having in place policies and procedures on implementation of TQM to provide guidance and spell out responsibilities of parties concerned furthermore the adoption of information communication technology (ICT) can help improve and sustain the implementation of TQM in Secondary Schools.

### **5.7 Suggestions for Further Research**

This study covered a number of areas as outlined in the aim and objectives of the study. It was however not exhaustive and certain areas still call for investigation by other researchers. The study therefore suggests the following areas for further research;

1. TQM in other secondary schools in different Counties to find out what their experiences are.
2. Investigation into the role played by Information Communication Technology towards the achievement of TQM in secondary schools.
3. The role of other stakeholders in implementation of TQM.

#### 4. The practice of TQM in private schools.

## REFERENCES

- Abrahamson, E. (1996). "Managerial fashion." *Academy of Management Review*, Vol. 21.
- Aksu, M.B. (2003). "TQM readiness level perceived by the administrators working for the Central organization of the Ministry of National Education in Turkey: Total Quality Management". Vol. 14 No.5, pp.591-604.
- Babbar, (1995). "Applying total quality management to educational instruction: A case study from a US Public University". *International Journal of Public Sector Management*. Vol. 8 No. 7, pp. 35-55.
- Barnes, F. (2000). *Good Business Sense Is the Key to Confronting ISO 9000* in *Review of Business*, Spring.
- Beecher (1949). *African Education in Kenya*. Nairobi: Government Printers.
- Capezio, P., & Morehouse, D. (1993). *Taking the Mystery out of TQM: A Practical Guide to Total Quality Management*. Franklin Lakes, NJ: Career Press.
- Crocker, R.E. (1996). "Defining instructional quality by employing the Total Quality Management (TQM) method: a research project", paper Presented at the American Vocational Association Convention: Cincinnati, OH.
- Crosby, P. (1984). *Quality without Tears: The Art of Hassle-Free Management*. New York: McGraw-Hill.
- Crosby, P. B. (1979) *Quality Is Free*. New York. McGraw-Hill. Corrigan, J. (1995). *The Art of Total Quality Management: Quality Progress*. Jupiter, FL: Enterprise Management Service.
- Deming, W. E. (1986) *Out of Crisis*. Cambridge: Cambridge University Press.
- Government of Kenya (2007). *Ministry of Education Service Charter*. Nairobi: Government Printers.
- Government of Kenya (2006). *Ministry of Education Strategic Plan*. Nairobi. Government Printers.
- Government of Kenya (2005). *Sessional Paper No. 1; A Policy framework for Education, Training and Research*. Nairobi: Government Printers.
- Government of Kenya (1976). *Report on the National committee on Educational Objectives and policies*. Nairobi: Government Printers.
- Government of Kenya (1968). *Education Act, Cap 211*. Nairobi: Government Printers.

- Genç, N., Halis, M. (2006). *Kalite Liderliği, Quality Leadership*. İstanbul: Timaş Yayınları.
- Halis, M. (2004). *Toplam Kalite Yönetimi Kapsam, İlkeler Ve Uygulamalar, TQM, Contents, Principles and Practices*. Ankara: Roma Yayınları.
- Imai, M. (1986). *Kaizen, the Key to Japan's Competitive Success*. New York: McGraw-Hill.
- Johnson, J.H. (1993). *Total Quality Management in Education: Oregon School Study Council Bulletin*: www.eric.ed.gov (accessed 18 March, 2012), Vol. 36 No.6.
- Juran & Gryna, (1988). *Quality Control Handbook*. 4<sup>th</sup>ed. New York: McGraw-Hill.
- Kavrakoğlu, İ. (1998). *Kalite, Kalite Güvencesive ISO 9000, Quality, Quality Assurance and ISO 9000*. İstanbul: KalDer Yayınları.
- Kombo, D.K., & Tromp D.L. (2006). *Proposal and Thesis writing; an introduction*. Nairobi: Paulines Publications Africa.
- Kothari, C.R (2009). *Research Methodology, Methods and Techniques* (2nd ed). New Delhi: New Age International Publishers.
- Mbindyo, P. (2011, Sept, 13<sup>th</sup>). The Daily Nation, p. 8.
- Metobo, J. (2011, Sept, 13<sup>th</sup>). The Daily Nation, p. 8.
- McCulloch, M. (1993). “*Total quality management: its relevance for higher education: Quality Assurance in Education*”. Vol. 1 No.2.
- McNealy, R.M. (1993). *Making Quality Happen*. London: Chapman & Hall.
- Mohammad, H. & Yeshodhara, K. *Total Quality Management (TQM) in Education: Perceptions of Secondary School Teachers*. <http://www.aiaer.net/ejournal/vol21>. Accessed (13:10:2011).
- Mutua, R.W (1997). *Development of Education in Kenya*. Nairobi: East Africa Literature Bureau.
- Mwanza, S. The Geomatics Business Development Magazine.
- Newby, P. (1999). “*Culture and Quality in Higher Education: Higher Education Policy*”. Vol. 12 No.3, pp.261-75.
- Nyongesa, B.J. (2007). *Education Organization and Management*. Nairobi: Jomo Kenyatta Foundation.
- Oso, W.Y and Onen D. (2009). *A general guide to writing research proposal and report*. Nairobi: Jomo Kenyatta Foundation.

- Pfeffer, N & Coote, A (1991). *Is Quality Good For You?* Social Policy Paper No 5. London:Institute of Public Policy Research.
- Sallis, E. (2002).*Total Quality Management in Education*, 3rd ed. London:Kogan Page.
- Sahney, S., Banwet, D.K., &Karunes, S. (2004). *Conceptualizing Total Quality Management inHigher Education: The TQM Magazine*. Vol. 16 No.2, pp.145-59.
- Şişman, M., Turan, S. (2002).*EğitimdeToplamKaliteYönetimi, TQM in Education*.Ankara:Pegem.
- Senge, P.M. (1990). *The Fifth Discipline:The Art and Practice of the Learning Organization*.New York: Doubleday.
- Terry, P.M. (1996). *Using TQM principles to implement school-based Management*, paper presented at the 14<sup>th</sup>Annual International Conference of the International Association of Management, Toronto.
- Töremen, F. (2009). *Total quality management practices in Turkish primary Schools. Journal of Quality Assurance in Education*. Vol. 17, pp. 30-44 <http://www.emeraldinsight.com>. Accessed, (13:10:11).
- Wango, G. (2009).*School Administration and Management, Quality Assurance and Standards in Schools*. Nairobi: Jomo Kenyatta Foundation.
- Waldman, D.A. (1993). "A theoretical consideration of leadership and Total Quality Management: *The leadership quarterly*". Vol. 4 No.1, pp.65-79.
- Weaver, C.N. (1995).*Managing the Four Stages of TQM: How to Achieve World-Class Performance*. Milwaukee, WI: ASQ Quality Press.
- Wilson, I. (2010).*Is ISO The Way to Go? Some say, Not So*. <http://james.westgard.com> Accessed 30 Sept 2011.
- Yatkın, A. (2003). *ToplamKaliteYönetimi, TQM Nobel*. Ankara:YayınDağıtım,



## APPENDICES

### APPENDIX A: LETTER OF INTRODUCTION

Miriam JebetKosgei

School of Human Resource Development

Department of Development Studies

Moi University

P.O Box 3900

**ELDORET**

Dear respondent,

**RE: Questionnaire**

I am a postgraduate student in Moi University conducting research on the topic;- *The extent and practice of Total Quality Management in Secondary Schools in Kenya; A study of schools in Eldoret East District.*

You have been selected as one of the respondents. Kindly complete the questionnaire by responding to the items as sincerely as possible. Information provided will be treated with utmost confidentiality. Please do not indicate your name anywhere.

Your cooperation and assistance will be highly appreciated.

Thank you.

Yours Sincerely,

Miriam J. Kosgei

**APPENDIX B: PRINCIPAL'S QUESTIONNAIRE****INSTRUCTIONS**

Please tick where applicable (✓)

**SECTION A. GENERAL INFORMATION.**

1. Gender    Male (    )                      Female        (    )
2. What is your age bracket?
  - a) 20-30yrs                      (    )
  - b) 31-40yrs                      (    )
  - c) 41-50yrs                      (    )
  - d) Above 50yrs(                      )
3. For how long have you taught?
  - a) 0 – 5yrs                      (    )
  - b) 6 – 10yrs                      (    )
  - c) 11-15yrs                      (    )
  - d) Above 10yrs                      (    )
4. For how long have you served as a principal?
  - a) 0-1yr                      (    )
  - b) 1-5yrs                      (    )
  - c) 6-10yrs                      (    )
  - d) Above10 yrs(                      )

5. What category is your school?

- a) Boys boarding
- b) Girls boarding
- c) Mixed boarding
- d) Mixed day
- e) Mixed day and boarding

6. What has been your school KCSE mean score over the past 5 years?

<b>2010</b>	
<b>2009</b>	
<b>2008</b>	
<b>2007</b>	
<b>2006</b>	

7. What was the school enrolment for the last 5 years?

<b>2010</b>	
<b>2009</b>	
<b>2008</b>	
<b>2007</b>	
<b>2006</b>	

## **SECTION B. IMPORTANCE OF TRAINING**

Please respond to the questions using the key below by ticking where applicable.

- a) SA- Strongly agree
- b) A -Agree
- c) U -Undecided
- d) D - Disagree
- e) SD- Strongly disagree

8. Have you undergone any management training? (Tick where applicable)

Yes [ ]                      No [ ]

9. Do you conduct in house training for the following groups?

(Yes)	(No)		
a) Prefects	[ ]	[ ]	[ ]
b) H.O.Ds	[ ]	[ ]	[ ]
c) Subject teachers	[ ]	[ ]	[ ]
d) B.O.G	[ ]	[ ]	[ ]

10. Training helps in improvement of service delivery.

- a) SA [ ]
- b) A [ ]
- c) U [ ]
- d) D [ ]
- e) SD [ ]

11. Training has helped the above groups to understand their roles better.

- a) SA [ ]

b) A [ ]

c) U [ ]

d) D [ ]

e) SD [ ]

12. There is need for continuous training and development for the human resource in a school.

a) SA [ ]

b) A [ ]

c) U [ ]

d) D [ ]

e) SD [ ]

13. Quality management is addressed in most training sessions.

a) SA [ ]

b) A [ ]

c) U [ ]

d) D [ ]

e) SD [ ]

14. Suggest areas in which your staff requires training.

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**SECTION C. THE ROLE OF HODS IN QUALITY MANAGEMENT IN A SCHOOL**

15. The following are statements on roles of Heads of Department in Quality Management in a school. Please tick(√) where appropriate.

	SA	A	U	D	SD
i) Heads of departments understand their roles in Quality management in the school.					
ii) It is important to consult Heads of Departments when making important decisions.					
iii) The Heads of Departments are always supportive in management of the school.					
iv) Appraisal helps to improve quality in service delivery.					
v) Heads of departments always take the initiative to hold departmental review meetings.					
vi) Heads of departments understand the needs of our customers and always work towards satisfying them.					

#### **SECTION D: CHALLENGES FACING IMPLEMENTATION OF TQM**

16. The following are some of the challenges facing quality management in schools. Please tick (√) where appropriate.

	SA	A	U	D	SD
i) Lack of funds					

ii) Poor motivation and job dissatisfaction among team players.					
iii) Lack of pre-service and in service training.					
iv) Understaffing.					
v) Resistance to change by major stakeholders					
vi) Ineffective communication					
vii) Role ambiguity					

## APPENDIX C: QUESTIONNAIRE FOR HEADS OF DEPARTMENT

**INSTRUCTIONS: (Please tick where appropriate)**

### SECTION A. GENERAL INFORMATION.

1. Gender      Male      [ ]Female      [ ]

2. How many years have you taught?

a. 0 – 4years      [ ]

b. 5-10years      [ ]

c. Above 10yrs [ ]

3. What is your professional qualification?

Dip Ed [ ] B.Ed [ ] C. M.A/Msc [ ] D Phil [ ] Others

(specify)

4. Who is your employer?

a. T.S.C [ ]

b. B.O.G [ ]

5. Which department are you heading?

i) Academic [ ]

ii) Boarding [ ]

iii) Others (please specify).....

6. For how long have you been a H.O.D?

a) 0-4 years [ ]

b) 5-10 years [ ]

c) Above 10yrs [ ]

## **SECTION B. THE ROLE OF TRAINING.**

Please respond to the questions using the key below by ticking where applicable.

a) SA-Strongly agree

b) A – Agree

c) U- Undecided

d) D- Disagree



e) SD-Strongly disagree

7. Have you undergone any induction course for H.O.Ds?

Yes [ ]                      No [ ]

8. The training received is enough to make me effective in service delivery.

a) SA [ ]

b) A [ ]

c) U [ ]

d) D [ ]

e) SD [ ]

9. Training helps to improve quality in management?

a) SA [ ]

b) A [ ]

c) U [ ]

d) D [ ]

e) SD [ ]

10. Suggest other areas where you require training.

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### SECTION C. THE ROLE OF H.O.Ds

11. The following are roles of HODs. Please tick (✓) where appropriate.

	SA	A	U	D	SD
i) Do you hold any departmental review meetings?					
ii) Quality is one of the issues we address in our					

departmental meetings.					
iii) Planning and supervision of teacher preparation are important in achievement of Quality.					
iv) The school administration involves the H.O.Ds in decision making process.					
v) Examination results analysis helps us to check on Quality at departmental level.					
vi) Record keeping affects quality management in a school.					
vii) Leadership and teamwork are the key ingredients of quality improvement in a School.					

12. Suggest other ways of enhancing the role of H.O.Ds in quality management in a school.

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#### **D.CHALLENGES FACING IMPLEMENTATION OF QUALITY MANAGEMENT PRACTICES.**

13. The following are some of the challenges faced by heads of department in their attempt to improve quality standards in their departments.

Please tick (✓) where appropriate.

	SA	A	U	D	SD
i. Lack of commitment by the management and some staff members.					
ii. Organization culture in the school					
iii. Poor documentation and record keeping					
iv. Insufficient training of the key team players					
v. Ineffective communication					

14. What other challenges do you face in an attempt to improve quality in your school?

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15. Suggest ways of improving standards in your school.

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APPENDIX D: MAP OF ELDORET EAST DISTRICT

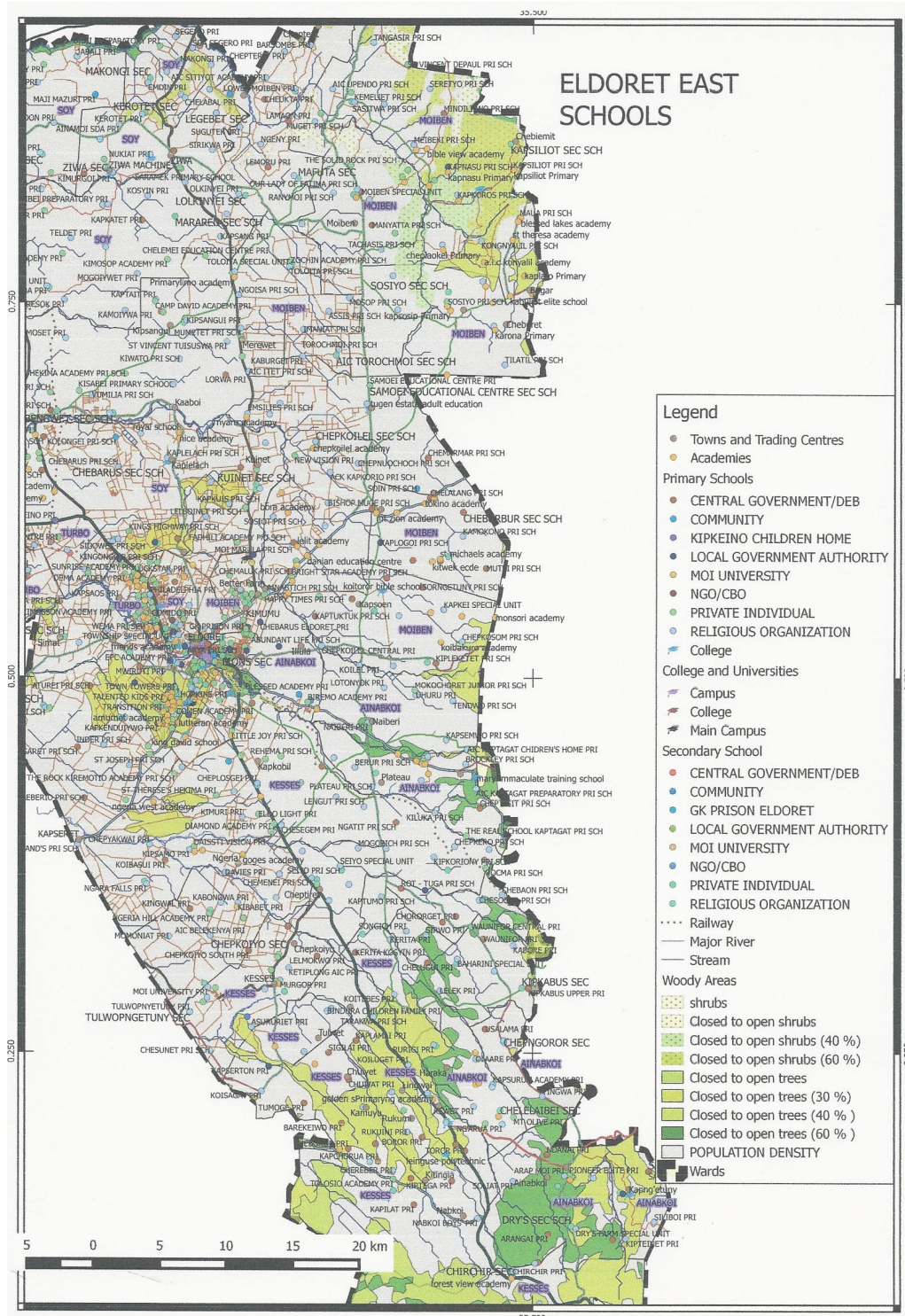


Figure 5.2 :Map of Eldoret East District

Source: The Geomatics Business Development

**APPENDIX E: LIST OF SECONDARY SCHOOLS IN ELDORET EAST  
DISTRICT**

1. Uswo
2. Rurigi
3. Eldoret Central
4. Kimoning
5. Chepkoilel
6. RCEA Biwott Ngelel Tarit
7. SOS
8. RCEA Plateau
9. AIC Torochmoi
10. Moi University, Chepkiolel
11. G.K Magereza
12. Tendwo
13. Sosiot
14. Chepkongony
15. Kipkabus
16. Kapsoya
17. Sosiyo
18. Arenersens
19. Kapsilot
20. Bishop Birech, Tilol
21. AIC Chebisaas
22. Kalyet
23. Moiben

24. Seko
25. Kapngetuny
26. Kapkei
27. Drys
28. Kimumu
29. Kemeliet
30. Moi Girls
31. Cheplelachbei
32. Ainabkoi
33. Tachasis
34. Tembelio
35. Chesogor
36. Toloita
37. St. Peters Noisa
38. Chepngoror
39. Ilula
40. St. Joseph Kapnasu
41. Immaculate Juniorate
42. Livingstone
43. Abrar
44. Cheburbur
45. AIC Chemugen



**APPENDIX F: RESEARCH PERMIT**

**PAGE 2** **PAGE 3**


**THIS IS TO CERTIFY THAT:**

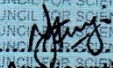
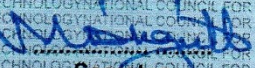
**Prof./Dr./Mr./Mrs./Miss/Institution**  
**Miriam Kosgei**  
**of (Address) Moi University**  
**P.O.Box 3900-30100, Eldoret**  
**has been permitted to conduct research in**

**Location**  
**Eldoret East District**  
**Rift Valley Province**

**on the topic: The extent and practice of total**  
**quality management in secondary schools in**  
**Kenya: A study of schools in Eldoret East District**

**Research Permit No. NCST/RCD/14/012/1557**  
**Date of issue 12<sup>th</sup> November, 2012**  
**Fee received KSH 1,000**




 **Applicant's Signature**  
 **Secretary**  
**National Council for Science & Technology**

**for a period ending: 31<sup>st</sup> March, 2013.**

**CONDITIONS**

1. You must report to the District Commissioner and the District Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.
2. Government Officers will not be interviewed with-out prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2)/ four(4) bound copies of your final report for Kenyans and non-Kenyans respectively.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice



**REPUBLIC OF KENYA**


**RESEARCH CLEARANCE PERMIT**

**GPK60553mt10/2011** **(CONDITIONS—see back page)**



## APPENDIX G: RESEARCH AUTHORIZATION

REPUBLIC OF KENYA



**NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY**

Telephone: 254-020-2213471,2241349  
254-020-310571,2213123, 2219420  
Fax: 254-020-318245,318249  
when replying please quote  
[secretary@ncst.go.ke](mailto:secretary@ncst.go.ke)

P.O. Box 30623-00100  
NAIROBI-KENYA  
Website: [www.ncst.go.ke](http://www.ncst.go.ke)

Our Ref: **NCST/RCD/14/012/1557**

Date:  
**12<sup>th</sup> November 2012**

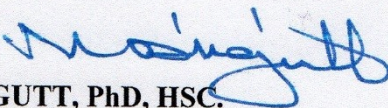
Miriam Kosgei  
Moi University  
P.O.Box 3900-30100  
Eldoret.

**RE: RESEARCH AUTHORIZATION**

Following your application for authority dated *6<sup>th</sup> November, 2012* to carry out research on *“The extent and practice of total quality management in secondary schools in Kenya: A study of schools in Eldoret East District,”* I am pleased to inform you that you have been authorized to undertake research in **Eldoret East District** for a period ending **31<sup>st</sup> March, 2013**.

You are advised to report to **the District Commissioner and the District Education Officer, Eldoret East District** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.



**DR M.K. RUGUTT, PhD, HSC.**  
**DEPUTY COUNCIL SECRETARY**

Copy to:

The District Commissioner  
The District Education Officer  
Eldoret East District.