SCHOOL ENVIRONMENT FACTORS AFFECTING ACADEMIC PERFORMANCE AMONG PUBLIC PRIMARY SCHOOL PUPILS IN MWALA DIVISION, MWALA DISTRICT, MACHAKOS COUNTY

By

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JUNE 2012

Mutua Eunice Mukami
School environment factors affecting
DECLARATION

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

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DEDICATION.

I dedicate this piece of work to Almighty God for His strength, provision and inspiration in my endeavor to carry out this research.

Secondly, I wish to express my sincere gratitude and appreciation to my dear parents Ngundo and Priscilla Mwikali who nurtured my education and who have been a source of my support – God bless you.

Finally, this work is dedicated to my beloved husband Wellington Mutua, my son Victor, Daniel and Ben who positively welcomed my absence when I was carrying out this research. Am very grateful for your prayers and moral support during this highly demanding and challenging moment that resulted in this work.
Acknowledgement is made to the courtesy of all who have kindly contributed to the success of this research project. Although it is hard to mention them all some deserve a special mention.

All the head teachers, assistant teachers and pupils of Mwala Division, for the information they provided in research.

My supervisors, Dr. Ogola and Dr. Nyerere of Kenyatta University for their humble guidance and dedication to seeing my success. May God bless you all.
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<th>Description</th>
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</thead>
<tbody>
<tr>
<td>EFA</td>
<td>Education for All</td>
</tr>
<tr>
<td>ANOVA</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>ERS</td>
<td>Economic Recovery Strategy</td>
</tr>
<tr>
<td>FPE</td>
<td>Free Primary Education</td>
</tr>
<tr>
<td>GOK</td>
<td>Government of Kenya</td>
</tr>
<tr>
<td>KCPE</td>
<td>Kenya Certificate of Primary Education</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development goal</td>
</tr>
</tbody>
</table>
Abstract

In some regions of Kenya, poor performance in the Kenya Certificate of Primary Education and even in the other lower levels of primary education has been attributed to such factors as absenteeism of students from school, lack of facilities, lack of motivation, understaffing and lack of role models. However, these factors differ depending on the region as well as school. Performance in Mwala Division has been dismal in the past five years. The purpose of the study endeavored to study the school environment factors affecting performance among public primary school pupils in Mwala Division that influence performance in the schools of Mwala Division. The objectives of the study were to find out the average performance in KCPE and in the other lower levels of primary education for the last five years, analyze school factors that influence performance in the schools and to seek possible remedial measures to poor performance. The significance of the study was to provide information on the factors impacting on the academic performance of pupils in public primary schools. Piloting was done on a small representative sample of two schools to ascertain the feasibility of the study. The validity of the questionnaire content was also tested to ensure that the questionnaires measured what they were supposed to measure. Reliability of the questionnaires was determined using split-half technique of measuring reliability. The research adopted a descriptive Research design. The total of 3201 students and 501 teachers drawn from 10 primary schools was targeted. Systematic random sampling was used to select a sample comprising of 320 students (10%) and 50 teachers (10%). Questionnaires were used to collect data. The data collected was analyzed using mean, mode or median and presented in bar graphs, tables and pie charts. Most of school factors which were considered and which significantly affected the performance of the pupils included, number of teachers (P=0.032), number of lessons going unattended, availability of facilities (p=0.427), school attendance (p=3.05), availability of books (p=0.029), enrolment levels (p=0.960) and number of lessons handled by a teacher. The study concluded that the factors affecting the performance of pupils in public primary schools can be alleviated by ensuring that awareness is created on the role of parents and stakeholders that they need to play in ensuring quality primary education. The study hence recommends that; (i). The government through the ministry of education should ensure that the necessary facilities are provided to the public schools. (ii). The government should consider improving much on the staffing levels in schools since it adversely affects performance. (iii). The study did not look at factors related to school efficiency in education and how it affects performance. Hence there is need for further study to be carried out to discover its impact and performance. (iv) the study did not look into factors related to classroom instruction and how they affect the performance. Hence it recommended that further studies need to be conducted on these factors to describe their interplay with factors described here to affect performance. (iv) The entry behavior of students was not considered in this study hence there is need to carry out research to ascertain the role of entry behavior in influencing the performance of the pupils.
CHAPTER ONE

BACKGROUND INFORMATION

1.1. INTRODUCTION

Education reform efforts in less industrialized countries have aimed at making education an effective vehicle for national development. Therefore governments, policy makers and civil society have emphasized that developing countries need to invest more in education and ensure that systems of education are efficiently managed, to ensure that education sector has maximum impact on economic development of a country.

1.2 Background to the Study

The overall goal of education sector in Kenya is to achieve Education for All (EFA) and Millennium Development Goals (MDGs) by 2015. This is in tandem with national and international conventions and commitments and integration of Science and Technology and Innovation (ST&I) in all the productive sectors and processes (Ministry of education, 2008). This education needs to be a totally integrated quality education and training to reflect the holistic and inclusive nature as outlined in the Koech report (Abagi and Owino; 2010).

Kenya recognizes that the education and training of all Kenyans is fundamental to the success of the Vision 2030 (Ministry of state for planning national development and vision 2030, 2010). Education equips citizens with understanding and knowledge that enables them to make informed choices about their lives and those facing Kenyan society. The education sector should therefore, provide the skills that will be required to steer Kenyans to the economic and social goals of Vision 2030. The first immediate challenge facing the sector in Kenya’s transformation to 2030 is how to meet the human resource requirements for a rapidly changing and more diverse economy. The next challenge is to ensure that
the education provided meets high quality standards, and that its contents are relevant to the needs of the economy and society Kenya vision 2030 (2007)

The Government introduced Free Primary Education (FPE) in 2003 in an effort to realize the Economic Recovery Strategy (ERS) and MDG goals. The FPE programme has resulted in increased access to primary education by reducing the cost burden on households and providing learning and teaching materials to all public primary schools. FPE interventions have

Increased enrolments in formal primary schools from 5.9 million in 2002 to 7.63 million in 2006 Education sector report (2008).

However, while free primary education has increased participation, it has at the same time created considerable problems. It has exacerbated the shortage of teaching and learning facilities. As a result of the high influx of new pupils, classrooms are congested. Many of the preliminary surveys seem to show that the existing facilities make a mockery of the free education programme. Many school management committees feel that they are seriously constrained to improve the state of learning facilities due to the government’s ban on school levies. At the same time, conditions laid down to request for concessions to institute levies are so cumbersome that they hesitate to embark on the process (Sifuna, 2003).

Poor staffing and provisioning have also adversely affected the attainment of UPE in Kenya. Many schools are grossly understaffed. The situation is grimmer for schools in the arid and semi-arid areas, as well as those in the slums of urban areas, where the ratio of teachers to that of pupils could be as high as 1:100 (UNICEF, 2005). For the majority of children in Kenya, as in other African countries (Ki-Zerbo, 1990 ; Nwihimi, 2008) primary school education was necessary for acquisition of basic literacy skills, therefore, making primary education terminal. As such, primary education should equip them with adequate
life and career skills to lead meaningful lives after school. In reality, however, the
education offered in primary schools predominantly aims at preparing the students
for secondary school (Sifuna & Sawamura, 2008). Consequently, many children
terminate their formal schooling with very little in the way of gainful life skills.

Low academic achievement has been defined as failing to meet the average aca-
demic performance in test or examination scores, as determined by a set cut-off
point. Pupil achievement in Kenya’s primary schools can be compared using the
Kenya Certificate of Primary Education (KCPE) examination which is
standardized. Studies have indicated that in informal settlements of Nairobi
students perform below average compared to those outside informal settlements.
However the performance is also affected by such factors as gender, school type
and location and socio-economic status (APHRC, 2008).

In some regions of Kenya, poor performance in the Kenya Certificate of Primary
Education has been attributed to such factors; absenteeism of students from
school, lack of facilities, lack of motivation, understaffing and lack of role models.
Learner difficulties, incapacity to facilitate learning, teachers mastery of content
and in correct use of appropriate teaching methods are factors attributed to the
poor performance in KCPE and in the other lower levels of public primary
education (Grauwe, 1999; Zadra, 2000 and Katana 2010). Other factors include
understaffing of teachers, teacher and pupil demotivation, poor time management,
poor discipline standards, negative impacts of the community and lack of adequate
teaching and learning materials. However, these factors differ depending on the
region under study as well as school. There is therefore need to carry out studies
in every region to ascertain the individual factors that affect KCPE performance in
the region (Morumbwa, 2006).
In Meru central district, Thuranira (2000) cited such factors as poor remuneration for teachers, teacher’s transfers effected at the middle of the term, inadequate supervision and unfriendly inspection of teachers by field officers, are some of the factors. The study reported other factors which were similar to those reported in other areas. These factors include understaffing, lack of learning and teaching materials, lack of motivation and lack of enough support from the local community.

Mwala division has a total of 77 public primary schools with a total of 501 teachers. On average, there are 5-7 teachers per school. All the schools are day mixed primary schools and 6 are private primary schools. Performance in KCPE and in the other lower levels of public primary schools in Mwala division has been below average in the past five years. The performance has been below average or average as shown in the Table 1.1. There is therefore need to carry out a study on the factors influencing performance in the division that has recorded such low marks in KCPE.

Table 1.1: Average score of students in the division in the past five years.

Average score is out of 500 marks.

<table>
<thead>
<tr>
<th>Class/Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>199.85</td>
<td>208.37</td>
<td>231.00</td>
<td>202.31</td>
<td>208.14</td>
<td>241.54</td>
<td>240.44</td>
<td>249.30</td>
</tr>
<tr>
<td>2010</td>
<td>196.72</td>
<td>210.47</td>
<td>212.10</td>
<td>210.45</td>
<td>214.36</td>
<td>234.60</td>
<td>244.38</td>
<td>242.50</td>
</tr>
<tr>
<td>2009</td>
<td>199.59</td>
<td>207.14</td>
<td>210.70</td>
<td>201.37</td>
<td>209.42</td>
<td>233.40</td>
<td>246.45</td>
<td>231.44</td>
</tr>
<tr>
<td>2008</td>
<td>200.45</td>
<td>201.43</td>
<td>219.60</td>
<td>197.30</td>
<td>208.38</td>
<td>231.40</td>
<td>251.00</td>
<td>241.00</td>
</tr>
<tr>
<td>2007</td>
<td>200.23</td>
<td>203.45</td>
<td>242.50</td>
<td>196.50</td>
<td>213.14</td>
<td>242.31</td>
<td>249.50</td>
<td>242.30</td>
</tr>
</tbody>
</table>

Source: Area Education Office 2010, Mwala Division.
1.3 Problem statement

Academic performance in Mwala division for the past five years has been below average. An average score for a primary school pupil in the five subjects tested in both KCPE and the lower levels is believed to be at least 250 marks out of 500 marks. There has been no improvement as such-in that majority of pupils in public primary schools have not or in rare occasions attained an average score. Studies, (Kwena, 2004 ; Morumbwa, 2006) have indicated that factors such as; absenteeism of students from school, lack of facilities, lack of motivation, understaffing and lack of role models affect performance in KCPE and in the other lower levels of primary education. However, the factors differ depending on the region and schools under study. Morumbwa's study was based in Nyamaiya division, Nyamira District. Katana (2010) reported factors that influence performance in Magarini, Kwena (2004) in Bondo district and APHRC (2008) outlined the factors in the informal settlements of Nairobi. These studies were carried out in areas with different demographic factors from Mwala district. Since the factors differ depending on the region and school there was need to carry out a study in Mwala district. There was every indication that studies needed to be carried out in every region that registers low marks to ascertain the factors that influenced performance in that region.

1.4 Purpose of the study

The purpose of this study was to analyze school environment factors impacting on performance in Kenya Certificate of Primary Education (KCPE) and in the lower levels of public primary school in Mwala division Mwala district- Machakos County, in order to make recommendations for improvement.
1.5 Objective

Using the study on "school environment factors affecting academic performance among public primary school pupils, the study focused on the following objectives:-

i) To find out the average performance in KCPE and in the other lower levels in each school in the past five years.

ii) To analyze the school factors that influence performance in the schools.

iii) To seek the opinion of the teachers on how the performance in KCPE and in the other lower levels of public primary school can be improved.

1.6 Research questions

There has been dismal performance in KCPE and other lower level of primary education in Mwala Division despite government effort of funding primary education with a view of improving the quality. To this end, the pertinent policy questions that arise are:

i) What is the average performance in KCPE and in the other lower levels of public primary schools in the past five years?

ii) What school environment factors in the different schools of Mwala Division that affect performance?

iii) What are the opinions of the teachers on how the performance in KCPE and in the other lower levels of public schools can be improved?
1.7. **Assumptions of the study**

In the proposed study the following assumptions will be made:-

(i) That all schools undergo the same curriculum, get teachers from the same source (TSC) and that the respondents are willing to give truthful and accurate answers.

(ii) Students in all the schools have the potential of excelling despite the different learning environment.

1.8. **Limitations of the study**

The study was limited to drawing descriptive conclusions from sample data about a larger group. However, other regions of Kenya experience problem of poor performance as in studies, Murumbwa, (2006); Mwinzi and Kimengi, (2006) and Jagero, et al., (2010). Hence generalization about the factors affecting performance in the entire public primary schools was made.

1.9. **Delimitation of the study**

The study sampled teachers and pupils present during the day of sampling. Those absent were included in the sampling exercise. Parents and members of school management committee were not included because of the difficulty in finding them.

The study was restricted to Mwala Division of Mwala District and did not cover other districts in the republic of Kenya. However other regions of Kenya experience problem of poor performance as in studies Murumbwa, 2006; Mwinzi and Kimengi, 2006 and Jagero, et al., 2010, hence the study was used to show the picture of the entire country.
1.10. Justification of the study

The academic performance of learners in KCPE and in the other lower levels of public primary schools is important in the education system in Kenya. Other than being used for examinee certification, KCPE is also used for selection of candidates into secondary schools. Studies (Morumbwa, 2006) have indicated that several factors have caused the poor performance in KCPE and in the other lower levels of public primary schools in various regions in Kenya. The factors are different depending on the area under study. Some of the factors reported include; disruption due to teachers absence and missed classes for chores and punishments (Mwinzi and Kimengi, 2006). In other areas students perform poorly because they stay long distances from school and this affects more girls' performance than boys. Parental socioeconomic status has also been cited as a major factor that influences performance of boys (Jagero, et al., 2010). Various regions experience unique problems therefore there was need to assess the factors that influence performance in each region.

1.11. Significance of the study

The study has provided information on the factors impacting on the academic performance of pupils in public primary schools. The study also correlated the factors and performance in KCPE and in the other lower levels of public primary schools. The information will be useful in helping the government and stakeholders who are the policy makers come up with interventions to help improve the performance. The study has also provided literature and a road map for scholars who may want to study the area.
1.12. Theoretical framework

The target of the study is premised on student and school environment. Therefore, theories that have to do with the characteristics of these entities as the affect learning will be applicable. Since the learning of any subject-matter depends on entry behavior of the learners, the way the subject matter is presented to the learner, the way the learner interacts with the learning experiences presented to him and the environment within which the learning takes place. It is therefore expected that these entities will be affected by variables that have to do with them e.g staffing, availability of facilities, teaching and learning materials. The theory of Maslow (1954) would therefore provide theoretical basis for the study.

Maslow's motivational theory expresses that there are to groups of needs, these are:- deficiency needs and growth needs. When the deficiency needs are met pupils are likely to function at higher levels (that is growth needs level). This means that when the deficiency needs are met, self directed learning or desire to know and understand would be engaged in more easily. The implication for this is that teachers can encourage pupils to meet their growth needs by enhancing the attractiveness of learning situations. In the light of these, when the environment where the child is learning is made attractive, effective learning is likely to take place.

1.13. Conceptual framework

The frame work in figure 1.1 suggests that the independent variable is conceptualized as three factors, namely:- level of education of parents, level of family income and marital status of parents. Pupils performance – which is the dependent variable, is conceptualized as academic performance, which refers to quality and quantity of knowledge, skills and positive attitudes, behavior and
philosophy that students acquire (Ferguson 1990). This includes daily class work, weekly tests, end of term examinations and end of year examinations.
Fig. 1.1. Conceptual Framework relating home-based factors to pupils' performance.

**Level of education of parents**

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<tbody>
<tr>
<td>Mother</td>
<td>1. None</td>
<td>2. Primary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guardian</td>
<td>1. None</td>
<td>2. Primary</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Level of family income**

<table>
<thead>
<tr>
<th>Father</th>
<th>1. Low</th>
<th>2. Middle</th>
<th>3. High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother</td>
<td>1. Low</td>
<td>2. Middle</td>
<td>3. High</td>
</tr>
<tr>
<td>Guardian</td>
<td>1. Low</td>
<td>2. Middle</td>
<td>3. High</td>
</tr>
</tbody>
</table>

**Parents' marital status**

|--------|-------------|------------|-----------|------------|

**Academic performance**

- Daily class work
- Weekly test
- End of term examinations
- End of year examinations

**Extraneous variables**

- Administration
- Availability of resources
- Attitude of pupils
- Teachers' performance

Key: + means positive

Source: Likert response scale (2006)
Definition of central terms

**Academic performance**: How well a student meets the academic standards set by government or institution

**Staffing levels**: The number of employees required in a department of a company or school for it to function efficiently.

**Understaffing**: To supply with fewer employees than required.

**Enrolment**: A record or an entry

**Workload**: The amount of work entrusted with a particular employee
CHAPTER TWO
LITERATURE REVIEW

2.1 INTRODUCTION
Literature was reviewed in areas of factors affecting performance around the world and Africa. Factors affecting performance in primary schools in Kenya were also be reviewed.

2.2 Factors affecting performance around the world and Africa
According to report by Overseas Development Institutes, (2007 - 2008), Sub-Saharan Africa is particularly affected, as over a quarter of its children of primary school age were out of school in the year 2007. It is estimated that there is a €16.2 billion annual external financing gap between available domestic resources and what is needed to achieve the basic education goal in low income countries. The current aid levels address only 15% of that gap and resources are often not provided to those countries who need it most and the amounts pledged are not fully honored.

A Studies by Dermie, et al (2006) and Diriye (2006) attribute the poor performance of Somali pupils in United Kingdom to overcrowded accommodation. A typical Somali family of six children can have little or no space to organize their learning materials and may experience learning obstacles such as excessive noise levels. A study by Clarissa (1992) and Okwach, A. & George, A. (1997) in Barbados examined home environmental factors that have a positive influence on achievement of secondary students. She observed that family stability, unity, and security had a positive influence on school achievement. Data was collected from a sample of 105 form-four students with 40% boys and 60% girls.
A study by Evans (1999) and World Bank, World Indicators, (2002) on gender achievement of secondary education in Jamaica revealed that socialization within the home and within the community contributed to their motivation to achieve. According to Desarrollo (2007), in Latin America the extent to which parents or other family members are actively engaged in a student's education had a positive influence on student achievement. But a study by Hunnum and Park (2004) in rural China indicated that there is no positive correlation between family and community cohesion with student achievement, however the study noticed that the parent–child interaction supported child’s aspirations and confidence.

According to Dermie et al (2007), lack of parental support among the Somali students in the United Kingdom contributed to their poor performance. Many of the Somali parents were unable to offer help to their children because of lack of prior education or ability to use English.

The problems for day student arose from a lot of work at home. A study by Desarrollo (2007) in Latin America outlined that secondary students with the responsibility of earning money for their families on a regular basis performed poorly in their national examinations. In Malawi, according to Scharff and Brady (2006), girls are expected to help their mothers with labor-intensive house-hold chores before going to school and therefore arrive to class late and exhausted. Because of such responsibilities, girls are less likely than boys to perform well (Scharff, 2007).

Grantham et al (1998), while studying school performance of Jamaican girls declared that better achievement levels were associated with possession of school materials and access to reading materials outside of (the) school. A study by Hinnum and Park (2004) determined that there was a positive correlation between the presence of reading materials at home and performance in rural China.
In certain areas of the world it is more difficult to get to school. For instance, in high altitude of India, severe weather conditions for more than seven months of the year make school attendance erratic and force children to remain at home hence affecting their academic performance (Postiglione, 2007). In 1996, the General Accounting Office (GAO) reported that poor conditions existent in many rural areas; one out of every two rural schools had at least one inadequate structural or mechanical feature (Lawrence, 2009). This therefore raises the speculation as to whether primary schools are more accessible in rural or urban areas because situations differ depending on geographical locations. In a study done to examine the correlation between location and school attendance in Argentina and Panama, researchers found that urban residence was positively correlated with school attendance (Devus, 2006) but another study in Louisiana school district found that schools with lowest attendance rates were in metropolitan areas (Moonie, 2010).

A study by Coady and Parker (2002) in Mexico had shown that distance to secondary school had consistently large negative effect on the probability of enrolling in secondary school. The impact in general was much larger for girls than boys. For girls, a reduction of distance to the nearest secondary school by one kilometer would result on an increase in the probability of attending by 8.6% whereas for boys the corresponding increase would be approximately 6.3%. Long distances from homes to schools are a likely cause of under participation among rural communities in Africa where only few schools exist Malenya (2008). According to De Jaeghere (2004), in Africa lack of formal secondary schools in close proximity to girls’ homes prohibits their participation.

Gender equality in education has been an issue for long time, many investments in girls’ education in 1900s addresses the widespread lack of access to primary
education in developing countries Dowd (2001). There is currently a gender discrepancy in education. In 25 countries the proportion of boys enrolling in secondary schools is higher than girls by 10% or more, and in five countries namely:- India, Nepal, Togo, Turkey and Yemen the gap exceeds 20%.

According to UNESCO Institute for Statistics, “literacy statistics” (www.uis.unesco.org, March 11, 2003); and World Bank, World Development Indicators 2002. Availability of gender gaps in many countries have seen the number of illiterate women rise twice as compared to men in two thirds of the illiterate population. The gender gaps in education vary greatly across countries in the region but are generally wider in countries where overall or literacy and school enrolment is low. In Yemen, for example, illiteracy among young women and girls is 54% which is triple that of men which is rated at 17%.

Study by Wad Haddad (1978) has indicated that “on the basis of available data no optimum class size can be scientifically established as function of educational benefits”. In Haddad, (1978) review it was concluded that high or low pupil teacher ratio is one of the factors impacting on performance which characterize primary education in Africa.

Studies in Kenya by Jagero (1999), Oloo (2003), and Mackenzie (1997), showed that a major problem affecting academic achievement was a home environment of the day students that was not conducive to reading. A research of Jagero (1999) in Kisumu district that substantiated the finding that lack of reading materials at home was a major factor affecting the performance of day secondary students.

According to Mbilinyi (2003), most students, especially girls, are engaged in such activities as caring for their siblings when their parents are away, taking care of the sick, and attending to traditional rituals, funerals, and other celebrations. In
Kenya Mensch and Lloyd (1997) found out that if girls have more domestic responsibilities than boys, they may have less time for homework, on the other hand, if girls are confined at home after school and boys allowed more freedom, girls may use some of their free time to do more homework thus performing better than boys.

Morumbwa (2006) carried out a study on the factors affecting performance in KCPE in Nyamaiya division. The confirmed that absenteeism of pupils from school lack of facilities, lack motivation, understaffing, lack of some facilities and lack role models cause poor performance. The study also found out that the head teachers and standard eight teachers academic qualifications professional qualifications and administrative experience does not affect school performance in KCPE.

Obiero (2010) explored the effect of administrative practices on KCPE performance in Maseno division in Kisumu. The study revealed that curriculum implementation and assessment, teacher professionalism and work related behavior and management practices predict KCPE performance. However materials and equipment as well as school environment and facilities have no significant influence on performance.

A study by Okwach Abag and George Odipo (1999) shows that 98.2% of the recurrent expenditure of primary education goes to teachers' salaries. However the average teacher pupil ratio is 1:30. This ratio result is relatively high teacher costs. This challenges the Ministry Of Education (MoE) with a dilemma between increasing teachers' salaries and reducing resources which has mostly left teachers on the receiving end in that their salaries are never adequate which culminates into frequent strikes and stand off's between the Ministry of Education and teachers.
This reduces teacher-pupil conduct hours leading to inadequately covered curriculum content.

2.3 Summary of Literature Reviewed

The literature reviewed here has explored factors influencing performance in various countries like Somali, Nigeria, Jamaica, Latin America, Mexico and Kenya. The literature confirms that different factors affect performance in various countries and regions. The studies therefore justify the need to carry out more studies in various regions because of the varying school environment learning problems and physical conditions of the areas. Thus, the literature reviewed examined how certain factors like poverty, gender and others have possible influence on the problem or are interrelated.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 INTRODUCTION
This chapter is organized under the following headings, the research design, target population, sample size and sampling procedures, research instruments, data collection procedures and data analysis.

3.2 Research Design
This study was a descriptive research. A descriptive research design is a method of collecting information by interviewing or using a questionnaire (Orodho, 2009). Further, Orodho states that descriptive survey gathers data from a relatively large number of cases at a particular time. The descriptive surveys have also been widely used in education research for many years and continue to be used to gather information on prevailing conditions. The study covers a large number of respondents making descriptive design the most suitable.

3.2.1. Variables
The independent variables of the study included the factors related to staffing levels, materials and facilities, profiles of teachers and students, as well as administrative factors. These factors directly affect the dependent variable; performance of students.

3.3. Study locale
The study was conducted in Mwala division, Mwala district in Machakos County. The district has a population of 614,337 (2009 census) and an area of 40,422 km². Mwala district is divided into four administrative divisions: Mwala, Masii, Yathui and Kibauni. The climate is semi-arid; it receives roughly 51mm of (20.11 inches) of rainfall. Mwala division comprise of 77 schools and 501 teachers. The schools
have recorded pupils' academic performance which is below average or slightly above average in the past five years.

Mwala District is adversely affected by sale of sand as the major source of income to its inhabitants. Owing to this practice, many school going children have not been attending school regularly in order to help with the duty of harvesting sand in order to make ends meet. It is due to this socio-economic factor and others that have rendered the district poor in academic performance.

3.4 Target population

The study focused on 77 schools in Mwala division whose total population of pupils is 3201 and 501 teachers.

3.5 Sample and Sampling techniques

3.5.1 Sampling techniques

The primary schools studied were selected through systematic random sampling whereby, coincidentally, five schools were discovered to have a mean of 250 marks and above and five schools with a mean of below 250 marks in both KCPE in the other lower levels of primary education of (2007 to 2011). Five (5) teachers and thirty two (32) students per school in the sampled schools gave overall information on the factors that they felt affect the performance of the student. The students gave information on the problems they face that make them not perform well. The head teachers were chosen to give information on the enrollment levels as well as staffing levels.
3.5.2. Sample size

The total sample size was determined according to the guidelines of Kothari (1985). According to Kothari (1985) a sample of 10% to 30% is appropriate for descriptive studies. The sample size for the schools were 10 out of the 77 that is 13%. There is a total of about 3201 students in the 10 primary schools. Therefore the sample size of the students was 320(10%). Since there are about 501 teachers, 50(10%) of the teachers in the division were recruited into the study.

Table 2: 1 Sample Size and percentages.

<table>
<thead>
<tr>
<th>Study group</th>
<th>Population</th>
<th>Sample size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td>77</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Students</td>
<td>3201</td>
<td>320</td>
<td>10</td>
</tr>
<tr>
<td>Teachers</td>
<td>501</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3702</strong></td>
<td><strong>470</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

3.6. Research Instrument

The study used a questionnaire as the main research instrument. However, in the schools an observation form was used to assess the state of factors in schools. The questionnaire was chosen because it is suitable for the population being studied. The population being studied- classes four to eight is literate and since it is a large population, the questionnaire was deemed good tool in the study. (Orodho, 2008)
3.7. Piloting the Research Instrument

Piloting was done on a small representative sample to ascertain the feasibility of the study.

The piloting study was conducted two weeks before the actual study in two primary schools not included in the study. Piloting ensured that the research instrument was clear and well understood.


Essentially validity is concerned with establishing whether the questionnaire content is measuring what they are supposed to measure. Validity is therefore the degree to which the empirical measure or several measures of the concept, accurately measure the concept. Content validity was determined through expert judgment by supervisors and colleagues. These competent persons examined the questionnaires individually and provided feedback to the researcher who then incorporated their recommendations in the final questionnaire.

3.7.2. Reliability of the Research Instrument.

Reliability is the measure of the degree to which a research instrument yields consistent results or data after repeated trials. The split-half technique of measuring reliability was used. This involved splitting the pilot questionnaire into two halves then calculating the spearman rank correlation coefficient (r) for the two halves. According to Orodho (2009), a correlation coefficient of at least 0.7 and above for the two halves is considered sufficient. The purpose of the reliability study was to assess the clarity of the questionnaire items as to whether they would yield consistent results so that those items found to be inadequate or vague were either discarded or modified to improve the quality of research instrument.
3.8. **Data Collection Procedure.**

The researcher obtained an authority from Kenyatta University to conduct the research, thereafter a research permit was sought from The Permanent Secretary Ministry of Higher Education Science and Technology. The researcher then visited the sampled schools and sought permission in writing from the school head teacher. On the actual visit to the sampled schools, the researcher established rapport with the teachers and the students with a view of verbally explaining the purpose of the study and administered the questionnaires.

3.9. **Data Analysis and Presentation.**

Descriptive data collected was presented as mean, mode or median. Analysis of variance (ANOVA) was used to test the differences between the school factors of different schools in the division. The study correlated the factors in school with performance.
CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 INTRODUCTION

This study sought to analyze school factors impacting on performance in Kenya Certificate of Primary Education (KCPE) and in other lower levels in public primary schools in Mwala Division, Mwala District. The study was conducted in 10 schools of the Division. It included 320 students and 50 teachers. The study used questionnaires as the main research instrument.

4.2 Demographic characteristics of the study of population.

Several demographic factors were considered which were important in interpretation of responses given. The factors included; sex and age of students, age, type of school and length of service for the teachers. Among the students who were recruited 138 (43.1%) were males while 182 (56.9%) were females. Such factors can be used to understand various responses to the factors of interest in this study. Age of students was also asked whereby 6 (1.9%) were age of 6-10 while 314 (98.9%) were age of 11-20. The students were also asked to say who pays for their fees, levies and their responses were as follows; guardian 50 (15.6%), mother 96 (30%), father 23 (7.2) and mother & father 151 (47.2%). The demographic characteristics of the families from which the students come from were also considered. Most of the students 177 (55.3%) were from families with 1-3 siblings. Others 118 (36.9%) were from families with 4-6 siblings, 18 (5.6%) were from families with 7-9 siblings and 7 (2.2%) did not respond to the question. Most of the students 138 (43.1%) were from families that earned Shs. 5001 and above, 55 (17.2%) were from families earned 4001 – 5000, 53 (16.6%) earned 2001 – 3000, 444 (13.8%) earned 1001 – 2000 and 19 (5.9%) earned 1-1000 (Table 4.1).
### Table 4.1: Demographic Factors of Students (N=320)

<table>
<thead>
<tr>
<th>Demographic factor</th>
<th>Categories</th>
<th>Frequency</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td>Male</td>
<td>138</td>
<td>43.1</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>182</td>
<td>56.9</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>1 - 10</td>
<td>6</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>11 - 20</td>
<td>314</td>
<td>98.1</td>
</tr>
<tr>
<td><strong>Person paying their fees</strong></td>
<td>Guardian</td>
<td>50</td>
<td>15.6</td>
</tr>
<tr>
<td></td>
<td>Mother</td>
<td>96</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Father</td>
<td>23</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td>Mother and Father</td>
<td>151</td>
<td>47.2</td>
</tr>
<tr>
<td><strong>Number of siblings</strong></td>
<td>1-3</td>
<td>177</td>
<td>55.3</td>
</tr>
<tr>
<td></td>
<td>4-6</td>
<td>118</td>
<td>36.9</td>
</tr>
<tr>
<td></td>
<td>7-9</td>
<td>18</td>
<td>5.6</td>
</tr>
<tr>
<td></td>
<td>Non-Respondent</td>
<td>7</td>
<td>2.2</td>
</tr>
</tbody>
</table>

The demographic factors are important in providing supportive explanation in some observations in the study. Notably, the demographic factors affect the socio-economic status of the families and subsequently the possible investment in the family. The number of children in the family adversely affects the capability of the parents to provide all the requirements and a suitable home environment. The schools under study were found to have low income families hence they are subject to challenge in provision of education to their children.

The demographic factors of the teachers were also considered in terms of age, type of school and the length of service. Among the teachers, 5 (10%) were 35-40 years, 5(10%) were 41-45, 25(50%) were 46-50 and 15(30%) were 51-55 years. The teachers had worked for varying numbers of years; 15(30%) had worked for less than 5 years, 25(50%) had worked for 10-15 years and 10(20%) had worked for more than 15 years. All the teachers were from single streamed schools.
Table 4.2: Demographic Factors of the Teachers (N=50)

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>Categories</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>35 - 40</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>41 - 45</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>45 - 50</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>51 - 55</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Length of service as a teacher</td>
<td>Less than 5 years</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>10 - 15 years</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>More than 15 years</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>21</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>29</td>
<td>58</td>
</tr>
</tbody>
</table>

The demographic factors of the teachers are also important in providing explanations to the observations in the study. The attributes of the teachers such as age and experience of teaching may directly affect the performance of the students. Studies, (Zadra, 2000 and Obiero, 2010) have revealed that the professionalism of teacher's behavior and management affects the performance of the pupils. The teachers of the schools under study comprised of middle aged teachers and have worked for couple of years. It is therefore expected that the schools had energetic staff to ensure performance. This is however coupled with other factors that are explored below.

4.3 Performance of the students in KCPE and in the other lower levels in the selected schools.

The performance of the students for the last five years was also considered. The performance mean of a particular school was calculated in terms of mean score whereby all classes have been captured and presented in Table 4.3 below.
Table 4.3: KCPE performance in the ten sampled schools 2007 – 2011.

<table>
<thead>
<tr>
<th>SCHOOLS</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>254</td>
<td>247</td>
<td>233</td>
<td>232</td>
<td>210</td>
</tr>
<tr>
<td>S2</td>
<td>221</td>
<td>221</td>
<td>224</td>
<td>191</td>
<td>235</td>
</tr>
<tr>
<td>S3</td>
<td>231</td>
<td>258</td>
<td>256</td>
<td>201</td>
<td>189</td>
</tr>
<tr>
<td>S4</td>
<td>247</td>
<td>263</td>
<td>267</td>
<td>212</td>
<td>204</td>
</tr>
<tr>
<td>S5</td>
<td>256</td>
<td>241</td>
<td>211</td>
<td>231</td>
<td>185</td>
</tr>
<tr>
<td>S6</td>
<td>247</td>
<td>251</td>
<td>235</td>
<td>195</td>
<td>241</td>
</tr>
<tr>
<td>S7</td>
<td>258</td>
<td>247</td>
<td>265</td>
<td>204</td>
<td>202</td>
</tr>
<tr>
<td>S8</td>
<td>267</td>
<td>231</td>
<td>361</td>
<td>210</td>
<td>211</td>
</tr>
<tr>
<td>S9</td>
<td>245</td>
<td>247</td>
<td>229</td>
<td>235</td>
<td>181</td>
</tr>
<tr>
<td>S10</td>
<td>257</td>
<td>254</td>
<td>236</td>
<td>189</td>
<td>222</td>
</tr>
</tbody>
</table>

**Mean.** 248.3 237.1 211.1 198.3 208

The mean performance of the schools in first year that was considered was 248.3, the second year was 237.1, the third year mean was 211.1, the fourth year the performance was 198.3 and in the fifth year the performance was 208 (figure 1.2)
The performance was considered by mean for the 5 years. The performance has not been consistent in most of the schools in the 5 years. The pupils' academic performance has been below average in the last five years.

4.4 School factors affecting performance of the students

The study also sought to analyze schools affecting performance of the pupils. The factors investigated included; staffing, enrollment, availability of facilities, school attendance and teacher qualification.

4.4.1. Staffing levels

The staffing levels in the schools were considered. The Table below presents the number of teachers in the various schools.
Table 4.4. Staffing levels in ten schools

<table>
<thead>
<tr>
<th>STAFFING LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1 6</td>
</tr>
<tr>
<td>S2 6</td>
</tr>
<tr>
<td>S3 8</td>
</tr>
<tr>
<td>S4 7</td>
</tr>
<tr>
<td>S5 6</td>
</tr>
<tr>
<td>S6 10</td>
</tr>
<tr>
<td>S7 9</td>
</tr>
<tr>
<td>S8 8</td>
</tr>
<tr>
<td>S9 8</td>
</tr>
<tr>
<td>S10 7</td>
</tr>
</tbody>
</table>

Staffing levels are very important in ensuring performance in primary schools. The issue of understaffing has been a thorny issue in most parts of the country. Schools without enough teachers find it no difficult to implement curriculum adequately. Just like most other areas of country, the schools reported that they were understaffed. The staffing levels were subjected to T-test to confirm whether they affected performance of the pupils. The number of teachers significantly affected the performance of pupils. \( P = 0.032; F = 0.741; DF = 49 \)

Further, the study sought to know whether the schools were understaffed and whether the staffing levels had impact on pupils performance.
The staffing levels in the schools under the study did not seem to be very worse as the understaffing was by 1-2 teachers. This could be due to the government efforts to alleviate the issue of understaffing. The issue of understaffing, as reported by Morumbwa, 2006 affects the performance of the pupils.

Most of the teachers 35(70%) were of the opinion that the schools were understaffed while 15(30%) were of the opinion that the schools were not understaffed. The teachers reported that the schools were understaffed by 1 – 2 teachers. This affected the performance of pupils because the number of teachers could not match the number of classes of pupils in the class. Therefore, this left some lessons unattended which definitely affected the performance of pupils as opposed to schools with enough teachers. All the understaffed schools had made request to be given additional teachers. The understaffing of the schools significantly influence the performance of the pupils (p=0.02; F=0.342; DF=49; Table 4.5)
4.4.2. Enrollment, trends in enrollment and lesson attendance

The enrollment levels of the 10 schools were considered. The teachers were asked to give the trends in enrollment and whether increasing or decreasing. Table 4.6 below presents the enrollment levels of the schools.

Table 4.6: The enrollment levels, number of students per class and the trends in enrollment

<table>
<thead>
<tr>
<th></th>
<th>Enrollment</th>
<th>Number of Students per Class</th>
<th>Trends in Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>200</td>
<td>25</td>
<td>Increasing</td>
</tr>
<tr>
<td>S2</td>
<td>232</td>
<td>29</td>
<td>Increasing</td>
</tr>
<tr>
<td>S3</td>
<td>26</td>
<td>27</td>
<td>Decreasing</td>
</tr>
<tr>
<td>S4</td>
<td>176</td>
<td>22</td>
<td>Constant</td>
</tr>
<tr>
<td>S5</td>
<td>200</td>
<td>25</td>
<td>Constant</td>
</tr>
<tr>
<td>S6</td>
<td>210</td>
<td>26</td>
<td>Increasing</td>
</tr>
<tr>
<td>S7</td>
<td>224</td>
<td>28</td>
<td>Decreasing</td>
</tr>
<tr>
<td>S8</td>
<td>208</td>
<td>25</td>
<td>Increasing</td>
</tr>
<tr>
<td>S9</td>
<td>200</td>
<td>25</td>
<td>Constant</td>
</tr>
<tr>
<td>S10</td>
<td>232</td>
<td>29</td>
<td>Decreasing</td>
</tr>
</tbody>
</table>

The enrollment levels were considered in terms of the total enrolment and the number of students per class. Enrollment has been a contentious issue, APHRC, 2010, since the introduction of FPE in the country. The increase in enrollment has resulted in large classes that teachers are not able to handle effectively. This also escalates the issue of understaffing. The results are shown in the table below.

Among the schools 20 (40%), the enrollment trend was increasing, 15 (30%) the trend was decreasing and 15(30%) the enrollment was constant. The effects of
enrollment especially when it assumes an upward trend is that; there will be excessive workload on teachers leading to some lessons going unattended, pupils books not marked and poor preparation. The enrollment levels were analyzed and subjected to T-test to show whether the influence performance of students. Therefore, enrollment levels significantly influenced performance of pupils, \((P= 0.0305; F= 0.742; DF=49)\).

**Table 4.7: Enrollment levels and the workload of teachers (N=50)**

The study also sought to know the enrollment levels of the school and the workload of the teachers and how it affects performance.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
<th>P</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total enrollment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100-150</td>
<td>10</td>
<td>20</td>
<td>0.960</td>
<td>0.99</td>
<td></td>
</tr>
<tr>
<td>151-200</td>
<td>20</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>201-250</td>
<td>15</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>251-300</td>
<td>5</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of students in a class</strong></td>
<td>20-30</td>
<td>50</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lessons of teachers per week</strong></td>
<td>20-30</td>
<td>15</td>
<td>30</td>
<td>0.321</td>
<td>1.198</td>
</tr>
<tr>
<td>31-40</td>
<td>35</td>
<td>70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lessons going unattended</strong></td>
<td>Yes</td>
<td>15</td>
<td>30</td>
<td>0.238</td>
<td>1.460</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>30</td>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non respondent</td>
<td>5</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Trends of enrollment in the schools</strong></td>
<td>Increasing</td>
<td>20</td>
<td>40</td>
<td>0.0305</td>
<td>0.742</td>
</tr>
<tr>
<td></td>
<td>Decreasing</td>
<td>15</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>15</td>
<td>30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A larger percentage 20(40%) had an enrollment of 151-200, 15(30%) had enrollment of 201-250, 10(20%) had enrollment of 100-150 and 5(10%) had enrollment of 251-300. All the schools had approximately 20-30 students in each class. There was no significant influence of the enrollment levels on the performance of the pupils (P=0.321; F=1.198; DF=49).

Table 4.8: Lessons handled by teachers per week and whether some lessons went unattended. (N=50)

The work load of the teachers was considered in terms of the lessons handled and whether some lessons went unattended.

<table>
<thead>
<tr>
<th>LESSONS OF TEACHERS PER WEEK</th>
<th>LESSONS UNATTENDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>27</td>
</tr>
<tr>
<td>S2</td>
<td>28</td>
</tr>
<tr>
<td>S3</td>
<td>27</td>
</tr>
<tr>
<td>S4</td>
<td>32</td>
</tr>
<tr>
<td>S5</td>
<td>36</td>
</tr>
<tr>
<td>S6</td>
<td>36</td>
</tr>
<tr>
<td>S7</td>
<td>39</td>
</tr>
<tr>
<td>S8</td>
<td>39</td>
</tr>
<tr>
<td>S9</td>
<td>38</td>
</tr>
<tr>
<td>S10</td>
<td>39</td>
</tr>
</tbody>
</table>

Among the school 30(60%) some lessons went un attended, 15(30%) lessons did not go un attended and 5 (10%) did not respond to the questions. The number of lessons going un attended did not however, influence the performance of the pupils (P=0.238; F=1.46; DF = 49)
4.4.3. Facilities and learning materials

Availability of facilities for the students, teaching and learning materials were considered. In about half of the sampled schools, four pupils shared a desk, the classrooms were overcrowded with more than fifty pupils and the textbooks was one per desk of four pupils. Facilities greatly affect not only the levels of students achievement but also the safety of both teachers and students. Spacious classrooms and enough furniture are a basis for good concentration and participation of pupils in class work. Teaching and learning materials like textbooks, chalkboard, exercise books enhance both leaning and teaching activities - thus promoting high levels of achievement since they are visual and enhance coordination of both eyes and the mind of the learner.

Table 4.9: Availability of facilities and teaching materials

<table>
<thead>
<tr>
<th>SI</th>
<th>AVAILABILITY OF FACILITIES</th>
<th>AVAILABILITY OF LEARNING MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>YES</td>
<td>Enough</td>
</tr>
<tr>
<td>S2</td>
<td>NO</td>
<td>Enough</td>
</tr>
<tr>
<td>S3</td>
<td>NO</td>
<td>Fairly Enough</td>
</tr>
<tr>
<td>S4</td>
<td>NO</td>
<td>Fairly Enough</td>
</tr>
<tr>
<td>S5</td>
<td>YES</td>
<td>Enough</td>
</tr>
<tr>
<td>S6</td>
<td>NO</td>
<td>Enough</td>
</tr>
<tr>
<td>S7</td>
<td>NO</td>
<td>Fairly Enough</td>
</tr>
<tr>
<td>S8</td>
<td>YES</td>
<td>Enough</td>
</tr>
<tr>
<td>S9</td>
<td>NO</td>
<td>Fairly Enough</td>
</tr>
<tr>
<td>S10</td>
<td>YES</td>
<td>Enough</td>
</tr>
</tbody>
</table>

The availability of the facilities and teaching and learning material was subjected to T test to find out its significance on determining performance. The result was also analyzed into percentages. The table below presents the findings and the significance levels.
Table 4.10: Effects of facilities on performance. (N=50)

<table>
<thead>
<tr>
<th>School factor</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
<th>P</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities available</td>
<td>Yes</td>
<td>20</td>
<td>40</td>
<td>0.944</td>
<td>0.427</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>30</td>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of learning material</td>
<td>Enough</td>
<td>30</td>
<td>60</td>
<td>0.032</td>
<td>0.433</td>
</tr>
<tr>
<td></td>
<td>Fairly enough</td>
<td>5</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No response</td>
<td>15</td>
<td>30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The effect of facilities on performance was subjected to performance as well as percentages. In most of the schools 20(40%) the facilities were said to be unavailable for students while in 30(60%) they were available. The availability of the facilities such as books did not significantly influence the performance of the pupils (P=0.427; F=0.944; DF=49; Table 4.10).

Learning materials available for the learners were also considered. Among the schools, 30(60%) had enough books, 5(10%) had fairly enough and 15(30%) did not respond to the question. There was significant influence of availability of learning material on the performance of the pupils (P=0.032; F=0.433; DF=49; Table 4.10). The teachers pointed other factors that affected performance as poverty 40(80%), parents’ ignorance 5(10%) and pupils’ indiscipline 5 (10%).

The availability of various facilities including the books are important in the performance of the pupils. The study however found no significant influence of the facilities on the performance of pupils, though they were important in curriculum implementation. The finding concurs with those of Obiero (2010) that the facilities did not significantly influence the performance of pupils.
The government has emphasized the provision of facilities through initiatives such as government grants.

4.4. Effects of School attendance on performance

The attendance of the pupils in school was also considered as a factor that affects performance. After comparing school attendance of several pupils with their performance results. The teachers concurred that school attendance was an important factor that affected the performance of the pupils. The table below presents the analysis of school attendance and the significance levels.

Table 4.11: School attendance and how it affects performance of pupils (N=50)

<table>
<thead>
<tr>
<th>School factor</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
<th>P</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>School attendance</td>
<td>Yes</td>
<td>50</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How school attendance affects</td>
<td>Constant attendance goes with grades</td>
<td>15</td>
<td>30</td>
<td>0.04</td>
<td>0.923</td>
</tr>
<tr>
<td>performance</td>
<td>Failure to attend lesson</td>
<td>15</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poor syllabus coverage</td>
<td>20</td>
<td>40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Among them, 15(30%) discovered that constant school attendance went along with good grades. This meant that, learners learnt all what should be learned in a day and even the entire school period. This ensures that all concepts are captured by the learner which translates into good performance. Another 15(30%) found that failure to attend lessons resulted to poor grades. Failure to attend school leads to little or no syllabus covered whereby, no concepts are taught to the learner who at the end lack knowledge and confidence to face examinations, thus leading to
poor performance. Therefore school attendance significantly influences performance of pupils ($P=0.04; F=0.923; DF=49$; Table 4.11).

Another emerging factor was syllabus coverage 20(40%) which affected performance.

### 4.4.5. Teachers qualification

The teacher's qualification was also considered as a factor affecting performance. There are several teacher qualification grades ranging from graduate teachers (Degree holders), Diploma, P1 and P2 teachers. The table below presents the qualification of the teachers and their responses on whether teacher qualification affected performance.

**Table 4.12: Teacher qualification and how it affects performance (N=50)**

<table>
<thead>
<tr>
<th>School factor</th>
<th>Category</th>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
<th>P</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levels of qualification</td>
<td>Diploma</td>
<td>10</td>
<td>20</td>
<td>0.944</td>
<td>0.427</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Graduate</td>
<td>5</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P1</td>
<td>22</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P2</td>
<td>13</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does teacher qualification affect</td>
<td>Graduate</td>
<td>Yes</td>
<td>30</td>
<td>60</td>
<td>0.729</td>
<td>0.540</td>
</tr>
<tr>
<td>performance</td>
<td>Teacher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P2 teacher</td>
<td>No</td>
<td>15</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non respondent</td>
<td></td>
<td>5</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Most of the teachers were P1 holders 22(44%), 13(26%) were P2 holders. The remaining portion 5(10%) were degree holders and 10(20%) were diploma holders. Among the teachers, 30(60%) felt that the qualification affects performance, 15(30%) felt that qualification does not affect performance and
5 (10%) did not respond to the question. Those who had said yes, mostly degree holders, 30(60%) were asked to explain how the teacher's qualification affected performance. They claimed that, a teacher who has learnt to the level of university is capable of being a good role model to the pupils, he/she is better placed in handling pupils academic and personal issues. P2 teachers 15(30%) claimed that what matters in teaching is teaching experience but not the academic level of the teacher. The teacher qualification did not significantly affect the performance of the pupils Two ways in which the teacher qualification affects performance (P=0.540; F=0.729; DF=49) (Table 4.12)

4.5 Strategies of reducing the effects of the factors impacting on performance

The teachers were asked to give their opinion on how the factors impacting on performance can be alleviated. The teachers gave several opinions on how the factors can be alleviated. Among the teachers, 25(50%) suggested educational awareness, 10(20%) suggested the imposition of school rules and regulations, 15(30%) suggested that there should be emphasis on dedication and commitment of the community. (Figure 1.3)

Figure 1.3: Strategies of alleviating the factors impacting on performance (N=50)
The problems facing performance are school-based factors. The government has done a lot on its part by providing free education, posting teachers to schools and meeting general needs of running the schools. It remains with the school administrators to partner with parents and stakeholders to work hard to alleviate the problems facing education by:-

Conducting awareness meetings whereby parents and stakeholders will be educated on the roles they are supposed to play in uplifting pupils' performance. If dedicated and committed to education of their children, parents will assure continued support to their children and the schools where their children go to learn- thus promoting standards of education in the country.

All schools need to formulate rules and regulations which will be understood by all pupils. Absenteeism as a major factor should be discouraged and measures to enforce the rules should be put in place.

**Figure 1.4: Opinion of students on why they perform poorly (N=320)**

The students' opinion on what made them perform poorly was considered. They gave several reasons as to why they perform poorly. The reasons include, lack of books 24(7.5%), poverty 160 (50%), lack of enough teachers 3(0.9%), lack of motivation 45(14.1%), stress 14(4.4%) and all the above 74 (23.1%); figure 1.4.
When the pupils were asked to explain why they fail, 160 (50%) said that poverty for example deters them from attending school due to lack of levies, enough food and school uniform. It also subjects the students to child labour especially at home where they are forced to work for a fend for their siblings and aging grandparents.

Another 3(0.9 %) lack of enough teachers whereby, some classes went un taught and sometimes they were subjected to double – shift programme. Those who attended school later in the day had little concentration in class work due to high temperatures and lack of comfort in the overcrowded classrooms.

Another 45(14.1%) lack of motivation resulting from poverty which demotivates the pupils who feel that they need not work hard because they can see that their parents are not financially capable of educating them beyond primary education.

14(4.4%) stress which emanates either from home or at school during their interaction with teachers fellow pupils and even parents back home. It causes them not concentrate thus performing poorly.

74(23.1%) all the above, meaning that the pupils were faced with stress, lack of motivation, lack of enough teachers, lack of enough books and poverty – making them perform poorly.

The remaining 24 (7.5%) lack of enough books. The pupils considered the books offered to their schools by the government not adequate. This is due to high class enrollment levels making them share textbooks to the ratio of 1:5 making it difficult to them to concentrate and perform well. Thus the number of books significantly influence the performance of the pupils (P=0.029; F= 2.749; DF=319).
4.6 Discussion

Pupils performance in KCPE and in other lower levels in public primary education in Mwala division has been below average for the past five years.

The mean performance of the schools has not been consistent. It assumed an increasing or decreasing trend in a school. This is an indication that over the five years many pupils have missed chances in secondary school and that many have joined village polytechnics and all have sought odd jobs in the villages.

The school factors impacting on performance of the pupils include: Staffing, enrolment levels, availability of facilities, school attendance and teacher qualification. On staffing, most schools are understaffed by 1-2 teachers. This impacts negatively on performance because the number of the teachers is less than the number of classes of pupils in the school. Therefore, some lessons go unattended. Enrollment revels in the schools have mostly assumed an increasing trend. This increases the number of pupils per class making it difficult for the teacher to give adequate attention to all the learners, not able to mark all the pupils books in time and lack of adequate time for lessons preparations.

Availability of facilities, teaching and learning materials have been found to affect performance. As a result of high class enrollment, facilities like classroom and desks have been overstretched making classroom not conducive for learning. Text books and other learning materials have also been in adequate making the pupils not participate fully in class work.

Pupils who attend frequently have been found to perform better than those who absent themselves from school. Therefore, school attendance significantly influences performance of pupils because it ensures enough conduct hours between the teacher and the pupils.
Teacher qualification impacts on pupils’ performance. Teachers who hold diplomas and degrees have an edge over the P2 teachers since they are themselves role models to the pupils who aspire to attain such qualification. Likewise they have knowledge in handling pupils’ personal and academic problems.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The findings of this study have been summarized in this chapter. Discussion, conclusion and recommendations of the study based on the findings have been provided in this chapter.

5.2. Key findings.

The purpose of this study was to find out the school environment factors affecting academic performance among public primary school pupils in Mwala Division, Mwala District, Machakos County. It was further to investigate: the average performance in KCPE and in the other lower levels in each school in the past five years, analyze the school factors that influence performance in the schools and to seek the opinion of teachers on how the performance in KCPE and in the on other lower levels of public primary schools can be improved.

Questionnaires and observation forms were used to collect data. Raw data was provided by head teachers and education officers. Data collected was presented as mean, mode or median. Analysis Of Variance (ANOVA) was used to test the differences between the school factors of different schools in the division. This chapter summarizes findings, gives the recommendations and suggestions for further research.

All primary schools in Mwala Division had varied performance in the last five years. The performance was either increasing or decreasing per school. The mean performance of the school in the past five years that was considered was 248.3, the second year was 237.1, the third year was 211.1, the fourth year the performance was 198.3 and in the fifth year, was 208 (figure 1.2).
The factors affecting performance were also considered in the study. The factors included staffing, enrolment levels, school attendance, and availability of facilities and teacher qualification of experience. Another factor found to have influence on performance is syllabus coverage.

Teachers gave suggestions on how the effects of the factors can be alleviated. The suggestions include:- creating educational awareness to the community members, encouraging them to dedicate their efforts to education of their children and imposition of school rules to curb absenteeism from the school.

5.3. Conclusion.

The following conclusions were drawn from study of the factors affecting academic performance in public primary schools.

In Mwala Division, performance of public primary schools in both KCPE and other lower levels of education has not been consistent in the past five years. The schools performed below average in the year 2007, 2008, 2009, 2010 and 2011. A number of factors in KCPE and in the other lower levels of public primary education which include; understaffing, absenteeism, availability of facilities and other teaching and learning materials.

The factors impacting on performance can be alleviated by conducting awareness meetings whereby parents and stakeholders in education will be sensitized on the roles they should play in education of their children. There is also need to encourage parents and stake holders to dedicate their efforts to the education of their children by providing enough books, uniform and support to their children.

Teachers cited different ways to reduce the negative factors affecting performance: by creating awareness on dedication and commitment of the community on education of their children. They also suggested the need to
formulate school rules and involve parents in enforcing the school rules to their
children by visiting schools to determine the discipline of their pupils and the
progress they are making in the school.

5.4. Recommendations

After conducting a study on the factors affecting performance among public
primary school pupils in Mwala Division, the following are the recommendations
of this study:

i) The study revealed that the school factors and especially lack of
facilities impact on the performance of the pupils. Hence even as the
government is providing free primary education it should give other
facilities like classrooms and enough desks.

ii) The ministry of education should consider improving on the staffing
levels in the schools since it adversely affects performance.

5.5. Suggestions for further study.

i) The study did not look at the factors related to school efficiency in
education and how it affects performance. Hence there is need for
further study to be carried out on this factor to discover its impact on
performance.

ii) The study did not look at factors related to actual classroom instruction
and how they affect performance. Hence it is recommended that
further studies need to be conducted on these factors to describe their
interplay with the factors described here to affect performance.

iii) The entry behavior was also not considered in this study. Hence there
is need to carry out research to ascertain the role of entry behavior in
influencing the performance of the pupils.
REFERENCES


Katana, R. (2010). Factors affecting Performance in K.C.P.E. in Magarini Division of Malindi District, M. Ed project, University of Nairobi


http://www.unicef.org/infobycountry/kenya_newsline.html
Appendix I: Questionnaires

Questionnaire A: Questionnaire for teachers

Instructions: Answer the following questions as free as possible. The answers provided will be kept confidential and will only be used for the purposes of this study.

Background information

1. Age _______

2. How long have you served as a head teacher _______
   i) Less than 5 years ii) 5-10 years iii) 10-15 years iv) more than 15 years

Factors affecting performance

1. State the type of your school
   i) Single streamed school ☐
   ii) Double streamed school ☐
   iii) Triple streamed school ☐
   iv) Any other specify ☐

2. How many teachers do you have in the school..............

3. i) Is your school understaffed
   Yes ☐ No ☐

   ii) If yes by how many teachers ............... 

   iv) If your school is understaffed have you made a request?
   Yes or No. If no, explain

4. What is the total enrollment of your school..................
5. How many students are there on average in your classes i) 20-30 ii) 30-40 iii) 50-60 iv) 60-70 v) 70-80

6. On average your teachers handle how many lessons per week ............

7. Are there lessons that go unattended because of lack of a teacher?

   Yes [ ]   No [ ]

8. What is the trend of enrollment in your school

   Increasing [ ]
   Decreasing [ ]
   Constant [ ]

9. Are other facilities except teachers available to cater for the student population?

   Yes [ ]   No [ ]

10. i) Do you feel school attendance affects performance of students in KCPE

     Yes [ ]   No [ ]

     ii) If yes explain briefly

11. i) Do you feel the teachers' qualification and profile affects the performance of the students

     Yes [ ]   No [ ]

     ii) If yes explain

12. i) How can you describe the status of materials such as books in the school?


13. What other school factors do affect the performance of pupils in your school?

    i. ____________________________
    ii. ____________________________
    iii. ____________________________
14. In your opinion how can the effect of these factors be alleviated in your school.

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________
**Questionnaire B: Students**

Instructions: Answer the following questions as free as possible. The answers provided will be kept confidential and will only be used for the purposes of this study.

**Demographic information**

1. Name of the school ____________________________

2. What is your gender?
   - Male
   - Female

3. What is your age? ___________ years

4. Who pays for your school levies?
   - Guardian
   - Mother
   - Father
   - Mother and father

5. How many siblings do you have?
   - 1-3
   - 4-6
   - 7-9

**Academic Performance (Tick appropriately)**

6. How many marks did you attain last term?

   Ranges of marks (Lowest)

7. Indicate your performance (Marks) in the last three years
   - i) 1 Term 1.....................
<table>
<thead>
<tr>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ii) 2</td>
<td>Term 1</td>
<td>Term 2</td>
</tr>
<tr>
<td>iii) 3</td>
<td>Term 1</td>
<td>Term 2</td>
</tr>
<tr>
<td>iv) 4</td>
<td>Term 1</td>
<td>Term 2</td>
</tr>
<tr>
<td>v) 5</td>
<td>Term 1</td>
<td>Term 2</td>
</tr>
</tbody>
</table>

8. In your opinion, what makes you perform poorly?

Explain

______________________________
______________________________
______________________________

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