

**SCHOOL BASED FACTORS INFLUENCING QUALITY OF FREE
PRIMARY EDUCATION IN PUBLIC PRIMARY SCHOOLS IN
NAVAKHOLO DISTRICT, KENYA**

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**A Research Project Submitted In Partial Fulfillment for the Requirements
of the Award of Degree of Master of Education In Economics of Education**

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DECLARATION

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

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This research project has been presented for examination with our approval as university Supervisors.

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DEDICATION

This work is dedicated to my family, my wife Dynah and children Nambiro, Wanyonyi, Matete, Mango, Situma, Barasa, Njenje, Purity and Dira. May God grant them to be better scholars.

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ABSTRACT

Introduction of free primary education (FPE) in 2003 was meant to ensure access, retention and completion of Primary Education in line with the Millennium Development Goal (MDG) number two. Education is a vital tool in the developmental process of any given nation. One of the major issues in the 20th century has been the relentless struggle by international communities to persuade countries to observe human rights and provision of basic needs. The general objective of this study was to investigate the school based factors influencing quality of free primary education in public primary schools in Navakholo District, Kenya. The specific objectives were to establish the adequacy of physical facilities on the quality of Free Primary Education in Public Primary schools, to assess how enrollment affects the quality of FPE in Public Primary schools, to determine the influence of instructional material on the quality of Free primary Education in Public Primary Schools, to determine the effect of learning techniques on the quality of Free Primary Education in Public Primary Schools and to determine how teacher – pupil ratio affects the quality of FPE in Public Primary Schools. This study adopted a descriptive research design. The theoretical framework was based on Education Production function theory of historical materialism. The sample sizes of this study were 181 class teachers and 36 head teachers. This study utilized questionnaires for head teachers and class teachers to collect data. Reliability of the instrument was done by performing a Pearson's product correlation. The validity was done by conducting a pilot study on two schools that were not included in the actual study. Both qualitative and quantitative techniques were used to analyze data. The Statistical Packages for Social Scientists (SPSS) software package were utilized in analyzing the data. There were 210 filled questionnaires; 175 for class teachers and 35 for head teachers for the study. The data was presented in frequency tables and pie charts. The study was intended to benefit the policy makers in the Ministry of Education, other Ministries, academic scholars, researchers and pupils. The findings showed that physical facilities in the public primary schools in the district are not enough for the high pupils in the schools. There is very high pupils' enrollment in the schools that is affecting the quality of FPE in the public primary schools. The schools are not further developed with the increasing number of pupils in the schools. The schools do not have adequate instructional material that affects the quality of Free Primary Education in Public Primary schools. The inappropriate learning techniques employed in the primary schools definitely affects the quality of Free Primary Education. The teachers do not have the current learning techniques to offer to the pupils. The teacher – pupil ratio is very high since the number of pupils is always increasing while deployment of teachers to cater for the new pupils. The researcher recommends that teachers should be sensitized by the education stakeholders that include the DEO on the importance of instructional materials and learning techniques in primary schools. The Kenyan government should build more primary schools in the district to cater for the high pupils enrolment. This will improve the teacher-pupil ratio which is currently very high and as a result the quality of education will improve. There should be enforcement of laws by the Ministry of Education and other educational stakeholders to guide the head teachers on the planning of schools.

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LIST OF ACRONYMS

ASAL	Arid and Semi-Arid Lands
EFA	Education for All
ERS	Economic Recovery Strategy
FPE	Free Primary Education
FTC	Feed the Children
KNEC	Kenya National Examination Council
MDGS	Millennium Development Goals
MOE	Ministry Of Education
MOEST	Ministry Of Education, Science and Technology
MVC	Most Vulnerable Children
NARC	National Rainbow Coalition
NGO	Non Governmental Organization
SNC	Special Needs Children
SPSS	Statistical Package for Social Sciences
TSC	Teachers Service Commission
UNESCO	United Nations Education, Scientific and Cultural Organization
UPE	Universal Primary Education
WFP	World Food Programme

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Education is a vital tool in the developmental process of any given nation. One of the major issues in the 20th century has been the relentless struggle by international communities to persuade countries to observe human rights and provision of basic needs. UNESCO's Director- General underscored this view by asserting that:

“If children are excluded from access to education, they are denied their human right and prevented from developing their talents and interests in the most basic ways. Education is a torch, which can help to guide and illuminate their lives. It is the acknowledged responsibilities of all governments to ensure that everyone is given the chance to benefit it”

Developed countries like USA and Japan have a large pool of highly skilled human resources. This has enabled them to not only exploit local natural resources but also to identify and negotiate for other countries resources. Primary school education is fundamental ingredient for creating economic development. In the United States it has been more important than increased capital in accounting for worker productivity and US economic growth (Smith, 2003).

Many developing countries laid a lot of emphasis on primary education in their early stages of development. Denmark achieved universal primary education

(UPE) in 1814, Sweden in 1842 and Japan in 1875. Many countries that have developed fast and have shown consistent annual growth in per capita income enjoy almost 100% primary literacy levels (Mbaru, E. A Standard, Feb 8th 2004).

Worldwide, primary school enrolments increased by 82 million since 1990. This symbolized the serious efforts to advance in the face of often severe economic constraints and continued rapid population growth. At the end of the 1990s developing countries had achieved net enrolment rates in the excess of 80%. There has been some improvement in primary school enrolment with the critical exceptions of sub-Sahara in Africa (Dakar Framework for Action, 2000).

Over the past decade several countries in sub-Saharan Africa have abolished primary school tuition fees typically as part of renewed attempts to resurrect their education systems (UNESCO, 2005). Whereas in the eighties and mid-nineties, cost-sharing had been a policy promoted by international financial institutions, the direct and indirect costs to parents of their children's education became obstacles to their attendance and continued enrolment.

The EFA Summary Report (2010) notes that as the 2015 deadline for achieving the goals of Education for All (EFA) conference draws closer, many countries are not on track to achieving the individual and development targets rolled out in Jomtiem and reaffirmed in Dakar, Senegal in 2000. According to the report, Kenya is among the 44 countries in the sub-Saharan Africa that stand a low chance of achieving Universal Primary Education (UPE) by the year 2015.

Saitoti (2011) notes that Kenya has realized momentous achievements in the education sector. The number of public primary schools has increased from 6,058 in 1963 to 7.2 million in 2003 with an extra 1.3 million enrolling in 2003. The enrollment ratio in primary has increased from 50% in 1963 to 87.6% in 2000. FPE has raised gross enrolment to 104% and net enrolment rate is 89%.

The teaching force in most districts in Kenya is not promising. Teachers complain of increased pupil-teacher ratios, many primary schools are understaffed. Many school management committees are of the opinion that as a result of the ban on levies, they are unable to recruit extra teachers through the PTAs. In addition, these problems are contributing significantly to high school drop out rates and have seriously affected the inflow of pupils in primary education (Sifuna, 2005). Due to the culture of fear inculcated by the former regimes and inept administration at the MoEST headquarters, the official rhetoric is that FPE is working smoothly when in reality it is not. This has casted doubts on quality of education provided by FPE and its role in national development.

The implementation of FPE programme witnessed an increase in enrollment in primary schools nationally. A record of 8 million children registered in various schools across the country of FPE (Wamukuru, 2011). The number of pupils exceeded the available human and physical facilities in the 18,000 public schools. The teacher-pupil ratio steadily increased from the recommended 1:40 pupils per class to between 1:60 and 1:90 pupils per class (MOEST, 2010).

Public Primary Schools (PPS) in Navakholo district/division like in most parts of the country have witnessed a steady increase in pupil enrollment since the introduction of FPE in 2003 (Wamukuru, 2006). Although studies have cited the presence of resource constraint such as inadequacy of financial resources, teachers instructional materials, teaching facilities as well as basic amenities necessary for quality learning environment (Otiato, 2010, Avenstrup et al 2004, Moest, 2004) on the other hand overcrowding, increasing class size, unhealthy learning environment, poor professional development of teachers and poor instructional methods have been linked to declining education quality in Kenya (UNESCO, 2010, Mathooko, 2009).

School infrastructure does influence the quality of various elements of the education process. The size and organization of classrooms can also influence the instructional method of teachers for instance arranging seating in a circle to enable maximum interaction instead of lecturing children sitting in rows. Children's learning is influenced by the availability of textbooks and learning materials, the space and furniture available for studying. The availability of toilets affects attendance and absenteeism amongst both boys and girls. In a rural school project in Tunisia, developing school infrastructure to be safe and inviting has been a priority alongside teacher capacity building (UNICEF 2010). This has demonstrated encouraging results with pass rates for grade six students rising from 46 percent in 2003 to 62 percent in 2009.

According to the records from the district educating office ,Navakhlo District , the performance of the public primary schools in KCPE running from 2009 to 2012 the performance was average as indicated in table 1.1

Table 1.1 Public schools Navakholo District KCPE analyses 2009-2012

YEAR	ENTRY	ENG	KIS	MATHS	SCIE	SSRE	M/SCORE
2009	1707	49.28	52.40	49.77	49.44	50.18	249.07
2010	1732	47.55	52.20	50.59	49.90	49.78	251.00
2011	1797	48.24	51.82	47.50	50.80	49.11	247.47
2012	1820	48.16	50.34	48.87	50.40	49.98	245.32

Source : D.E.O's office Navakholo District

Table 1.1 indicates that the academic performance of Navakholo district for the last two years is below average apart from the average of the year 2010 and therefore it shows that the quality of the FPE is poor.

Private schools performance shown are difference from that of public primary school as the result posted from 2009 to 2012 depicted better performance than in public primary school as indicated in table 1.2

Table 1.2 Private schools Navakholo District KCPE analysis 2009-2012

YEAR	ENTRY	ENG	KIS	MATHS	SCIE	SSRE	M/SCORE
2009	890	63.52	64.40	59.77	61.44	62.18	311.31
2010	920	65.25	69.20	61.59	60.90	60.78	317.72
2011	987	60.24	60.82	63.50	59.80	61.11	305.47
2012	1132	67.16	65.34	62.87	65.40	70.12	330.89

Source : D.E.O's office Navakholo district

Table 1.2 indicates that the academic performance of private primary schools in Navakholo district for the last two years is above average and therefore it shows that the quality of the FPE is better in private schools than in public.

Since FPE is implemented using public funds. Accessing and monitoring constraints affecting the implementation of FPE as well as the associated negative impact on education quality is at most important. It is on the basis of these demands that the quality of FPE will be assessed in Navakholo District.

1.2 Statement of the problem

Among the factors that contribute to decline in quality of school education are school based factors which include inadequacy of physical facilities, instructional material, learning facilities, pupils' enrollment and teacher – pupil ratio. Since maintaining the quality is the key to addressing major education challenges (Nekatibeb, 2003). Since the re-introduction of Free Primary Education in Kenya in 2003, acute shortage of teachers, physical facilities, instructional materials and

learning space have been noted as some of the major resources constraints (Oketch and Somerset, 2010).

Kenya's Vision 2030 indicate that there is minimal emphasis on the role of education in enabling Kenya become a medium size industrialized nation by 2030 (Vision 2030, 2010). From the contents of the document it is not clear how the education sector will be able to meet the objectives of the Vision creating sustainable development. Much of the emphasis in the document is placed on the role of economic and political pillars in advancing national development. In order to achieve Vision 2030, the role of education in the process will require redefinition.

They shun away from discussing the school based factors influencing the quality of education in public primary schools. They concentrated on performance of pupils and school in general in national examination. In the light of the above previous studies, this study seeks to establish the school based factors influencing the quality of FPE in public primary schools in Navakholo district.

1.3 Purpose of the Study

The purpose of the study was to investigate school based factors influencing the quality of Free Primary Education in public primary schools in Navakholo District, Kenya.

1.4 Objectives of the Study

The study was based on the following specific objectives.

- i. To establish the influence of physical facilities affect the quality of Free Primary Education in Public Primary schools.
- ii. To assess how enrollment of students affect the quality of FPE in Public Primary schools.
- iii. To determine the influence of instructional material on the quality of Free Primary Education in Public Primary schools.
- iv. To determine the effect of learning techniques on the quality of Free Primary Education in Public Primary schools.
- v. To determine how teacher – pupil ratio affect the quality of FPE in Public Primary Schools.

1.5 Research Questions

The study was based on the following specific research questions.

- i. How do physical facilities affect the quality of free Primary Education in Public Primary Schools?
- ii. What are the effects of high enrollment on the quality of FPE in Public Primary Schools?
- iii. To what extent does provision of instructional material affect the quality of Free Primary Education in Public Primary Schools?
- iv. How does the learning techniques influence the quality of Free Primary Education in Public Primary Schools?

- v. What are the effects of teacher – pupil ratio PTR on the quality of FPE in Public Primary Schools?

1.6 Significance of the Study

The study may be useful to the stakeholders in the Ministry of Education and policy makers to establish areas that have knowledge and skill gap. It may help the policy makers in human resource planning, allocation and disbursement of funds to public primary schools in the country.

The findings of the study may assist in providing data and information for proper planning and decision in the Ministry of Education, local leadership, CDF administration and NGOs. Other researchers may apply the recommendations of this study in pursuit of adding new knowledge in the area of study area.

The study findings may help policy makers to develop workable programmes that would lead to improvement in the quality of Free Primary Education in public primary schools. The study may assist the school management in realizing the need for attitude change and also appreciate the innovativeness and improvisation practices which their teachers are practicing. This could re-energize them to improve the quality of education.

1.7 Limitation of the Study

The study was limited to public primary schools in Navakholo district and mainly schools that have been established more than four years and have offered candidates for Kenya Certificate of Primary Education.

1.8 Delimitation of the Study

Though the study was carried out in primary schools in Navakholo district, it only included public primary schools and not private schools because the study evaluated FPE which is only offered in public primary schools which are funded by the government and not by individuals.

1.9 Assumption of the Study

There was a significance relationship between Free Primary Education (FPE) and its quality.

There was a significance relationship between Free Primary Education (FPE) and rate of enrolment in public primary schools.

1.10 Definition of Key Terms used in the Study

Access refers to the availability of opportunity for primary schools and other educational institutions to admit school age children.

Attitude refers to the positive or negative predisposition by pupils to think, feel, perceive and behave in a certain way towards education in primary school.

Effective implementation refers to putting in place programmes and strategies to ensure positive implementation of FPE in primary schools.

Enrolment refers to the number of pupils who register as members of different grades at the beginning of every year in primary schools.

Free education refers to provision of primary education by the government of Kenya which involves no financial burdens to the parents of the pupils.

Performance refers to the academic achievement of the individual pupil through examinations taken at the end of the academic year.

Public primary school refers to government maintained schools by paying teachers' salaries, administration and funding school facilities.

Quality refers to the standard of primary education that has exception high standards, consistency, meeting the stated purpose and values.

1.11 Organization of the Study

This study is organized into five chapters. Chapter one deals with the background of the study, statement of the problem, purpose of the study, research questions of the study, significance of the study, limitations of the study, basic assumptions of the study.

Chapter two deals with literature review organized into sub title preview of free primary education in Africa, concept of FPE in Kenya, educational facilities, teachers workload, teacher training and preparedness, pupil teacher ratio, government funding, theoretical framework and conceptual framework.

Chapter three deals with introduction, research design, target population, sample size and sampling technique, research instruments, validity and reliability of the instruments, data collection procedure and data analysis technique.

Chapter four contains data collecting, its analysis and interpretation. Chapter five summarizes the research findings, makes conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section presented the literature review for this study. Literature review will be reviewed from journals, policy papers, the internet, and any other material that will be deemed relevant to the study. The literature review will be thematically reviewed under the sub titles: physical facilities, pupils' enrolment, instructional material, learning techniques and teacher-pupil ratio.

2.2 Subsidized Primary Education in Schools

In Pakistan the government has partnered with the private sector to ensure the success of the FPE. In 1979, it sought to encourage the establishment of private institutions, which now constitute 14 percent of all schools, to expand the availability of school places. The goals of the policy included among others to eliminating drop-out and fulfilling the basic learning needs by the year 2002; Improve the quality of education, by reasserting the role of the teacher in the teaching-learning process, modernizing curricula and textbooks, improving physical facilities, and introducing activity-oriented new sciences at all levels of school education (Oketch and Rolleston, 2007).

In 2002, the Kenyan government implemented the FPE policy which was a campaign pledge to voters. The FPE initiative focused on attaining education for All (EFA) and in particular Universal Primary Education (UPE). Key concerns

were access, retention, equity, quality and relevance and internal and external efficiencies within the education system (MOEST, 2005). Through the FPE policy the Kenyan government scrutinized the 8.4.4 system which had previously been coupled with retention and reduced enrolment before it came to power. The government focus was also on “quality education and training as a human right issue in accordance to Kenya Law and International Conventions. The study will therefore look at the impact of school based factors on the quality of education.

Despite the government’s effort, primary education continues to experience many challenges related to access, equity and quality (MOEST, 2005). These challenges include: overstretched facilities; overcrowded in schools especially those in urban slums; high pupil teacher ratios (PTR) in densely populated area; high cost of equipment for children with special needs; diminished community support following their misconstrued role vis a vis that of the government in the implementation of the FPE initiative; gender and regional disparities; increased number of orphans in and out of school as a result of HIV/AIDS; and other reasons such as external inefficiencies (MOEST, 2005). Mbatia (2004) concur with MOEST that FPE has encouraged more enrolment at lower primary levels and variables such as class size, pupil-desk ratio, pupil- book ratio, school schedule and class control have changed. Therefore this study will analyse how the school based factors influence the FPE quality.

Wamukuru (2006) study on the challenges of implementing FPE in Kenya and its effect on teacher effectiveness noted that the key elements of the FPE implementation that need urgent redress are those that catalyze teacher effectiveness. The study will address some of these challenges specifically school based factors that influence the quality of education in public primary schools in Navakholo district.

2.3 Quality of Education

Quality of education is a critical element in education policy, according to UNESCO (2000) educational quality is concerned with “improving all aspects of the quality of education and ensuring excellence of all that recognized and measurable learning outcomes are achieved by all, especially in literacy ,numeracy and essential life skills”(Saito and Capell,2009) in this context, there are various definitions of the quality of education not with standing quality education includes: Learners who are healthy, well-nourished and ready to participate and learn and supported in learning by their families and communities, Environment s that are health, safe, protective and gender –sensitive, and provide adequate resources and facilities.

Content that is reflected in relevant curricula and materials for the acquisition of basic skills, especially in the areas of literacy, numeracy and skills for life, and knowledge in such areas gender, health, nutrition, HIV/AIDS prevention and peace, Processes through which trained teachers use child–centered teaching

approaches in well –managed classrooms and schools and skillful assessment to facilitate learning and reduce disparities, Outcomes that encompass knowledge, skills and attitudes are linked to national goals for education and positive participation in society, Learning environment .again these foundation agree with Bernard (1999) assertion that in all aspects of the school and its surrounding education community the rights of the whole child and all children to survival, protection development and participation are at the center. This means that the focus is on learning which straightens the capacities of children to act progressively on their own behalf through the acquisition of relevant knowledge useful skills and appropriate attitudes and which creates for children and helps them create for themselves and others, places of safety security and healthy interaction UNICEF, 2000).

Good quality education is measured in terms of literacy, numeracy, and life skills outcomes. Which have a positive effect on work productivity, individual incomes, socioeconomic growth, health, innovation and rapid learning of new technologies. On the other hand increased education quality measures participation rates in education since highly informed parents are more likely to invest in their children education and influence perceptions of education quality (Saito & Capell, 2009).

These are various forms of assessment that have been employed to measure the quality of education. Cross nation survey areas are routine research undertaking in industrialization countries and more carried out to account for massive investments

in the education sector and access. These surveys can be international in scope such as the international association for the evaluation of education achievement (IEA) first international mathematics study (FIMS) First international science study (FISS) or region /sub region in scope such as northern and eastern Africa consortium for monitoring education quality (SACMEQ): in which Kenya is a member or national in scope national education quality assessment are government initiated mechanisms for periodically monitoring and evaluating the quality of national systems (Saito & Capell, 2009). Continuous assessments of quality can focus on learners learning environments, content, process and outcomes.

2.4 Indicators for measuring Quality Learners

Good health and nutrition: Research has shown that healthy physical and psychological development in childhood provides the foundation for healthy life and fruitful formal school experience. Moreover normal brain development requires adequate nutrition. It therefore follows that quality education should provide substantial nutrition and promote the health of learners through early intervention programs and prevention of infections, diseases and injuries (UNICEF, 2000).

Positive psychological: In early childhood stimulated by experiences and interactions prepare children to quality learner's (Sifuna, 2009). In addition to these cognitive effects, early childhood programs that positively influence primary

school performance also better psychological Development especially emotional regulation arousal and behavioral management (UNICEF, 2000).

Regular school attendance: Research has demonstrated that high academic performance is directly linked to consistent school attendance increases a child exposure to curriculum and increases their opportunity to learn. This subsequently affects achievement and reduces the rate of repetition of classes (Lizettee.2000).

Family support: Even though parental level of education may imply that they may not always support the cognitive psychological and social development of their children, the influence of family support cannot be under estimated (UNICEF, 2000) quality.

Learning environments: These measures of quality learning environments include physical, psychosocial and service delivery elements.

2.5 Physical facilities and Quality of Education

Education facilities are linked to quality in terms of human resources and in-school resources. Availability of resources such as textbooks, desks and blackboards has been found to influence quality of education (Brock & Cammish, 1997; Molteno et al., 2000), as have various aspects of teaching and learning processes. Teaching practice and behaviour can particularly influence a pupil's decision. Smith (2003) found that in some schools in Zimbabwe's Southern Province teachers did not prepare lessons, had no schemes of work, and left pupils' assignments unmarked.

Such classroom practices and implicit lack of in-service teacher development has serious implications for quality education.

Nekatibeb (2002) asserts that learning environments have been well recognized as inadequate in Sub-Saharan Africa due to low level of economic development and poverty. Most learning institutions are in short supply of classrooms, facilities and learning materials. Nekatibeb (2002) observed that in many countries, teachers are poorly paid than other sectors or are not paid in good time. The results is teacher absenteeism, lack of motivation or attrition where schools and teachers are forced to search for alternative incomes from parents or to use student labour; this situation has a negative impact on girls' education, because it discourages parents from sending girls to school or shortens the time spent on teaching and learning (Ibid).

Lizettee (2000) indicated that sanitary conditions of schools in rural and urban areas in developing countries are often appalling, creating health hazards and other negative impacts, thus schools are not safe for children. Lizettee observes that lack of facilities and poor hygiene affect both girls and boys, although poor sanitation conditions at schools have a stronger negative impact on girls. All girls should have access to safe, clean, separate and private sanitation facilities in their schools. If there are no latrines and hand-washing facilities at school, or if they are in a poor state of repair, then many children would rather not attend than use the alternatives (Ngales, 2005). In particular girls who are old enough to menstruate

need to have adequate facilities at school and normally separate from those of boys. If they don't, they may miss school that week and find it hard to catch up, which makes them more likely to drop out of school altogether (Lizettee, 2000).

Providing water and sanitation at school level is critical for girls. Privacy issues relating to sanitation are a major factor forcing girls out of schools (Ngale, 2005). These studies are echoed by a study in Kenya by the North Eastern Director of Education (2004), which established that girls were forced to leave school due to lack of adequate sanitation facilities.

UNICEF (2009) further observes that child friendly schools should have fresh portable water within the school with proper plumbing infrastructure that allows for distribution of safe water. In addition, separate toilets or latrines should be available for girls and boys, privacy, cleanliness and safety major considerations when planning location and design of facilities.

More than 60% of all schools in Africa lack sufficient sanitation facilities (UNICEF, 2009). Even in schools with facilities, unhygienic sanitation hinders the ability of students to concentrate and learn at school (Water and Sanitation Collaborative Council and WHO, 2005). In Africa, the lack of basic sanitation facilities further decreases the enrolment of girls in primary schools. Various studies have particularly linked the attendance of girls to the availability of adequate sanitation facilities in schools (UNICEF, 2006). Girls spend more time in schools when the number of sanitation facilities is adequate (UNICEF, 2006). As

such, the need for improved access to sanitation goes beyond improved health and addresses issues of children rights and gender equity.

Since the introduction of the Kenyan free primary education in 2003, the enrolment rate of students has tripled (CSAE, 2008). This increase in the number of pupils has not been matched by a proportional increase in the number of sanitation facilities. According to the Kenyan Ministry of Public Health and Sanitation, schools should adhere to a standard ratio of 1 toilet for 25 girls and 1 toilet for 30 boys (GoK, 2008). These ratios however remain unattained and currently, more than 60% of all schools in Kenya lack sufficient sanitation facilities (UNICEF, 2009). Even in cases where the number of sanitation facilities is adequate, they are often in poor condition discouraging their use among children (UNICEF, 2009).

It is unlikely that the world will meet the Millennium Development Goal (MDG) target of reducing by half the population without access to sanitation. Further, though access to sanitation is inexorably linked to health, education, and gender equity, the MDGs do not target improvement of school sanitation facilities. Additional effort is needed to improve access to clean, private, and safe sanitation facilities in school.

2.6 The Role of High Pupils Enrolment on Quality on FPE

All over the world expansion of education access has not kept pace in the construction of new schools. Therefore, increase in student population has led to

expansion in class sizes and can increase in teachers pupils ratio as way of accommodating the large number of new learners. It has been demonstrated that teachers are happier more efficient, and able to give children individual attention when the sizes of classes are kept low. In a study carried out by Willams (2000) it was found that children who were in classes of 25 or more were 1.5 times more likely to demonstrate lower tests scores and increased grade repetition. Indeed quality education and learning does not take place by simply packing children in to large standardized classes.

Quality content refers to the planned and tough curriculum of schools. National goals for education and outcome statements that translate those goals in to measurable objectives should provide the starting point for the development and implementation of curriculum (UNICEF 2000). The aim is to children develop the skills they need in life rather than only acquire knowledge.

Quality content should be student – centered, non-discriminatory, and standards based on curriculum structure. This means that good curriculum should take in to account individual differences in students learning be gender sensitive, and be inclusive of children from diverse backgrounds (UNICEF 2000). Learning outcomes should be appropriate to the level of learning.

Similarly, quality content should be unique and relevant to local and national values. This is especially important when teaching subjects like languages, mathematics and science. Other measures of quality content include literacy,

numeracy and life skills. Literacy is the ability to read and write. It is one of the primary goals of formal education. On the other hand numeracy encompasses a range of skills from basic arithmetic and logical reasoning to advanced mathematics and interpretative communication skills. Numeracy skills only give people more control in their day life s through, for example more informed management of household and small enterprises it also allows for more effective participation in communities and nation s since understanding many corrective issues requires an ability to make a sense of financial and other quantitative information. Lastly, the form life skills can be broadly interpreted, and is often assumed to include such topic as health hygiene, norms of behavior and vocational skills. Therefore, life skills encompass refusal skills, goal setting, decision making and copying skills (UNICEF 2000). Life skills curriculum focus on attitudes, values and behavioral change rather than seeking to provided young people with a body of knowledge about set of topics. They are meant to enable learners to resolve conflicts and decisions.

2.7 Pupil – Teacher ratio (PTR) and Quality of FPE

Mbatia (2004) reported that most primary schools cannot cope with the large number of pupils who poured in school after introduction of FPE in 2003. The large classes are the most glaring characteristics of teacher shortage. Many classes go unattended to, other are merged specially the lower classes. Teachers rarely

mark pupils work (Mbatia, 2004). This definitely affects quality of education; therefore this study will probe this factor.

Overcrowded classrooms lead to lack of interaction between the teacher and learners. The pupil's teacher ratio varies from region to region and between urban and rural schools. While it is uneconomical to have a ratio of 25:1 a pupil – teacher ratio (PTR) of over 40:1 affects the quality of teaching. The commission of Enquiry in educational systems in Kenya (Koech report, Republic of Kenya, 1999) recommended a PTR of 40:1 and where there are fewer pupils in a class a shift system be applied. With the introduction of the FPE the PTR is far above the recommended ratio in most schools. The quality of education is therefore affected and this is what this study is based on.

School infrastructure influences the quality of various elements of educational success. The size and organization of classrooms can also influence the instructional methods of teachers for instance arranging seating in a circle to enable maximum interaction instead of lecturing children sitting in rows. Children's learning is also influenced by the availability of text books and learning materials. The space and furniture available for studying, availability of toilets affects the attendance and absenteeism amongst boys and girls (UNICEF2000).

2.8 Learning Techniques and Quality FPE

As opposed to earlier decades where education quality mainly emphasized on the system inputs such as pupil teacher ratios infrastructure and curriculum content;

research has began digressing on the impact of quality processes on academic quality. Teachers are one of the most important factors in helping children to learn. Unfortunately teachers are frequently poorly prepared for their task. Little attention emphasis or energy has been put into teachers training. Teacher's selection and training as tended to favour general training and knowledge of essential pedagogical skills that help students to learn (UNICEF1999).

Ongoing professional development and recurrent teachers training is a critical part of building the teacher's capabilities and appropriate instructional style. Investing in teachers training is an assure way of having indirect impact on the quality of the students education. Teachers training and professional development need not to be restricted to off- site teachers training. Teaching styles in many places remain traditional, teachers centered, and fairly rigid or even authoritarian. This ensures that children are afraid to learn by asking questions and instend must passily adapt to the teacher what is taught. Teachers must demonstrate continued support for children centered l learning (UNICEF 2000).

In a study conducted by UNESCO (2009), most of the 162 sample schools visited had received FPE grants, ordered and received instructional materials as per the Ministry of Education, Science and Technology (MOEST) guidelines. However it was noted that the FPE grants disbursements were not done on time as most schools started receiving the funds either in second or third term, implying that most schools had limited or no access to textbooks in first term, 2003.

Sifuna (2005) noted that due to the recent curriculum review, schools had mainly procured the new textbooks for classes 1 and 5 and class 8 (which is an examination class), thereby rendering it inadequately prepared for the exams.

Teachers waste a lot of time on procurement procedures of textbooks. The procured books are also grossly inadequate compared to the student ratio as shown in the figure below from sampled schools in the country (UNESCO, 2009).

2.9 Quality outcome

Quality learner outcome are the intentional and expected effects produced by the educational system. Quality outcomes are what children know and what they can do as well as their attitude and expectation they have for themselves and their societies. Achievements related to literacy and numeracy represents key education outcomes. Other achievements of quality education are related to community participation and learners confidence, and hence life skills and the capability to make responsible choices and resolve conflicts. (UNICEF 2000).

The evaluation and assessment of learner outcomes from the stand point of quality is essential to strengthening and improving education systems.

Literacy and numeracy achievement are principal educational outcomes. The basic goal of primary education is to teach children how to read, write and perform simple calculatory. For this outcome to be achieved there has to be consistent class attendance (UNICEF 2000). However, attaining these goals will also dependent on

the quality of teaching environment, the quality of the process and the quality the curriculum content.

The quality of education was evaluated using formative assessments. Testing the process of learning is a common way of determining the pupils who are to be promoted to the next level of study. Ongoing assessment can be used as a tool not only for assessment achievements but also for improving them (UNICEF 2000). Summative and end of education cycle examinations such as KCPE also form the fundamental for investigating increases / decreases in each quality.

2.10 Summary of Literature review

The study by Mbatia (2004) reported that most primary schools cannot cope with the large number of pupils who poured in school after introduction of FPE in 2003. This study did not cover other factors that affect the quality of FPE and so the study filled the research gap that is left. Wamukuru (2006) study on the challenges of implementing FPE in Kenya highlighted educational facilities, pupil enrolment, pupil-teacher ratios (PTR) and teacher training. The study did not include all the school based factors like instructional material and so this study will research on the left factors.

2.11 Theoretical Framework of the Study

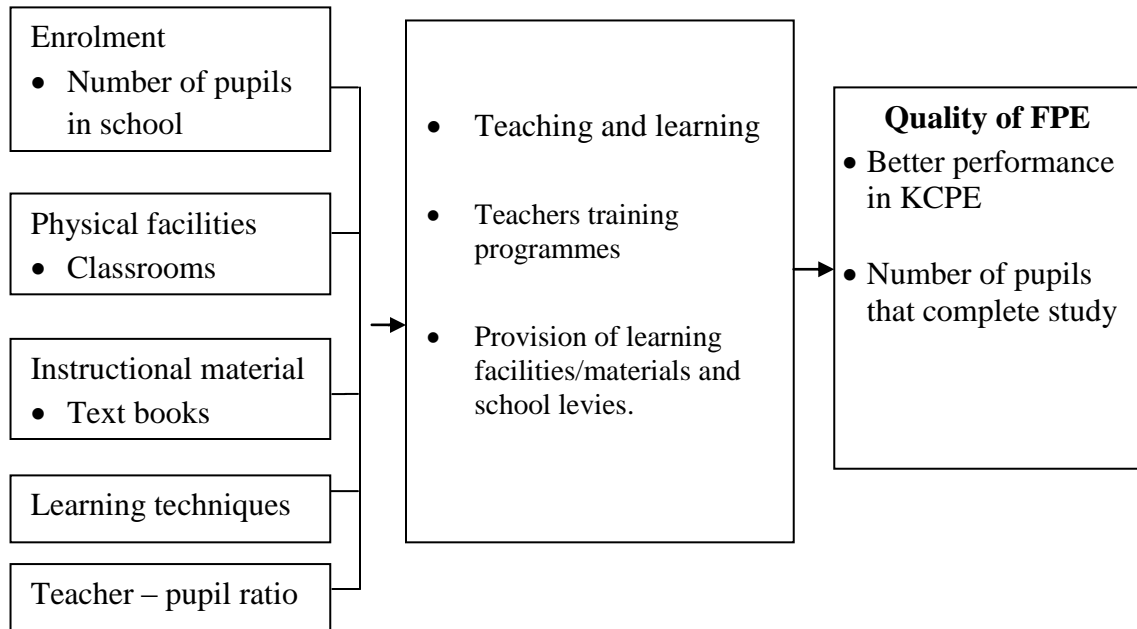
The study was guided by Education production Function theory advocated by Hopkins (1990). Education function represents mathematically the process of which a school transforms inputs (Stephen and Eileen, 1990).

An education production function is an application of the economic concept of a production function to the field of education. It relates various inputs affecting a student's learning like pupil-teacher ratio, instructional materials, physical facilities that affect the quality of education. It measure outputs including subsequent labor market success, school enrollment, graduation rates, and most frequently, standardized test scores.

A large number of successive studies, increasingly involving economists, produced inconsistent results about the impact of school resources on student performance, leading to considerable controversy in policy discussions. Additionally, policy discussions about class size reduction heightened academic study of the relationship of class size and achievement.

2.12 Conceptual Framework

Figure 2.1: Relationship between the variables in the study



Quality education in any given country depends on input which includes enrollment, physical facilities, instructional material, learning techniques and teacher – pupil ratio, the process that involves teachers training programmes, learners attitude, motivation and encouragement and provision of learning facilities and the output being quality of Free Primary Education that is shown by good academic performance. The conceptual framework model above suggests that there is a relationship between the input and quality of FPE. For the FPE to be realized, all the four factors above should be given attention. Once this is done, access retention and sustainability will be realized.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methodology that will be used in carrying out the study. This includes research design, target population, sample size and sampling procedures, research instruments, instrument validity and reliability of the instrument, data collection procedures and data analysis techniques.

3.2 Research Design

This study adopted a descriptive survey design. Descriptive research design was employed to investigate situations where researcher's primary interest is describing and making interpretations about the research phenomenon without manipulation (Jwan, 2010). This study established the factors contributing to the quality of FPE. A survey was appropriate since this study attempt to collect data on the school based factors influencing the quality of FPE from head teachers and teachers. This is related to survey where it involves determining the status of population with respect to one or more variables by use of questionnaires, interviews and observation schedule (Mugenda and Mugenda, 2003).

3.3 Target Population

Target population included all the members of areas or hypothetical set of people, events or objects to with a researcher wished to generalize the results of the research (Mugenda and Mugenda, 2003). The target population of this study

consisted of 40 headteachers and 345 class teachers in the 40 public primary schools in Navakholo district/division.

3.4 Sampling Techniques and Sample Size

According to Bartlett, Kotrlik & Higgins (2001) sample size of a statistical sample is the number of observations that constitute it. The sample size is drawn from the target population of the study. In surveys a sample size is composed of respondents drawn from the larger population. Krejcie and Morgan (1970) proposed a table for calculating the sample size from target population. The table illustrates the computation of sample sizes for various target populations at a confidence level of 95%. They resulted to a sample size of 181 class teachers and 36 headteachers. The researcher randomly sampled the respondents.

The researcher applied multi-stage random sample to determine the sample size Patton (2012). Cluster sampling technique was used to select 10 primary schools from each of the three divisions for sample to be representative. Stratification was done in terms of divisions where lists of public primary schools in every division will be obtained from the DEO's office. Simple random sampling was used in each stratum to select schools proportionality in each of the three divisions. This technique is preferred to manage diversity and capture variety of the phenomena in the study Jwan (2010).

3.5 Research Instruments

Questionnaire and an observation schedule were used. Questionnaires were preferred because they are more efficient in that they require less time, they are less expensive and permits collection of data from a wide population as suggested by Jwan (2010). Two categories of questionnaire were used that is one for the headteacher and another one for the class teachers. The two categories of questionnaires comprised of closed ended items which required respondents to select one response from a given alternative and open ended items required the respondents to express their personal views about the questions asked. The questionnaires comprised of sections A, B, C, D, E, F arranged according to objectives of the study. Section A comprised demographic information, section B collected information on educational facilities, section C collected information on teachers/pupil ratio, section D collected information on teaching/instructional materials section E collected information on government funding while section F collected information on in-service training courses.

Observation is way of gathering data by watching behavior, events, or noting physical characteristics in their natural setting Jwan (2010). The benefit of covert observation is that people are more likely to behave naturally if they do not know they are being observed. Observation was used to record information on the availability of classrooms, libraries, instructional material, playgrounds, toilet and other facilities. The researcher carried out the observation in person.

3.6 Validity of the Instruments

Validity is the accuracy and meaningfulness of inferences drawn from the researcher findings. It is the degree to which results obtained from the analysis of the data actually represent the phenomena under study (Mugenda and Mugenda, 2003). Validity was taken to mean the extent to which the instruments cover the objectives. To determine the content validity of the instruments, a pilot study was conducted on one head teacher and eight class teachers; this is 1% of the total population Mugenda and Mugenda, (2003).

Through the pilot study, the researcher was able to determine ambiguities in the items. The items that failed to measure the variable intended were modified and others were discarded. Expert advice was sought from the supervisors and other lecturers in the department of educational administration and planning, who critically examined the items of the instruments and give professional advice for the modification and improvement.

3.7 Reliability of the Instruments

Reliability is a measure or the degree to which a research instrument yields constant results or data after repeated trials (Mugenda and Mugenda 2003). To test the reliability of the instruments, the researcher employed the test-retest. The researcher administered the questionnaire to a head teacher and eight class teachers. After one week the researcher administered the same instruments to the

same respondents. A test retest was done to test the reliability of the study techniques and to perfect the questionnaire concepts and wording.

The researcher used Pearson product moment correlation formula to correlate the scores from both test periods to obtain correlation coefficient; it established the extent to which content of the instruments are consistent in eliciting the same responses every time the instrument is administered (Jwan, 2010). According to Mugenda and Mugenda (2003) a coefficient of 0.80 or more shows that there is higher reliability of data. the questionnaire revealed a coefficient of 0.72 hence it was deemed reliable.

$$\text{hence } r = \frac{N \sum xy - (\sum x)(\sum y)}{\sqrt{N [\sum X^2 - [\sum X]^2][\sum Y^2 - (\sum Y)^2]}}$$

KEY:

- N = number of pairs of scores
- $\sum xy$ = sum of the products of paired scores
- $\sum x$ = sum of x scores
- $\sum y$ = sum of y scores
- $\sum X^2$ = sum of squares scores
- $\sum Y^2$ = sum of y squares scores

3.8 Data Collection Procedures

The researcher first applied for a research permit from the National Council of Science and Technology. After permission was granted the researcher sought

clearance from the Area Education Officer, Navakholo district/division where permission and introduction letter to the participating schools will be issued. The researcher booked appointment with the help of the participating schools. The researcher visited the selected schools to establish rapport with the members of the staff. The researcher then administered the research instruments of the study to the headteachers and the class teachers of the sampled schools. The researcher also filled the observation schedule during the visit to the schools.

3.9 Data Analysis

Kothari (2004) observed that some research designs can generate data which “are amenable to quantification and statistical treatment” p.116). Both quantitative and qualitative data were gathered using a structured questionnaire. Closed-ended items in the questionnaire involving a Likert scale generated quantitative data, while open-ended items will generate qualitative data. Qualitative data obtained from responses to the open-ended items was first coded (O’Leary, 2010).

After cleaning and coding the data, Statistical Package for Social Sciences (SPSS) was used to analyze them. Kothari (2004). In this study, there were five different independent variables whose effect on the dependent variable is under investigation. Analysis of quantitative data employed regression and correlation in order to obtain an understanding of the relationships between the independent variables and the dependent variable.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter deals with the questionnaire return rate, demographic characteristics, data analysis and interpretation which were generated by the study. The data presented includes: to establish the influence of physical facilities affect the quality of Free Primary Education in public primary schools, to assess how enrollment affect the quality of FPE in public primary schools, to determine the influence of instructional material on the quality of Free Primary Education in public primary schools, to determine the effect of learning techniques on the quality of Free Primary Education in public primary schools and to determine how teacher – pupil ratio affect the quality of FPE in public primary schools.

4.2 Questionnaire Return Rate

The sample was 217 respondents that were made up of 181 class teachers and 36 head teachers. There were 217 questionnaires administered, the filled questionnaires were 175 from class teachers and 35 from head teachers. This represented 96.77% response rate. (Mugenda and Mugenda, 2003) asserts that a 50% response rate is adequate, 60% good and above 70% rated very good. This implies that basing on this assertion; the response rate in this case of 96.77% is very good.

4.3 Demographic Characteristics

In order to achieve the main aim of the study the researcher sought demographic information of the respondents, the information included gender, professional qualification and experience of the head teachers and class teachers in public primary schools in Navakholo District, Kenya. Results are shown in Table 4.1.

In this study the researcher chose to use gender to have a balance and remove biasness of respondents in regard to sex.

Table 4.1 Gender of the respondents

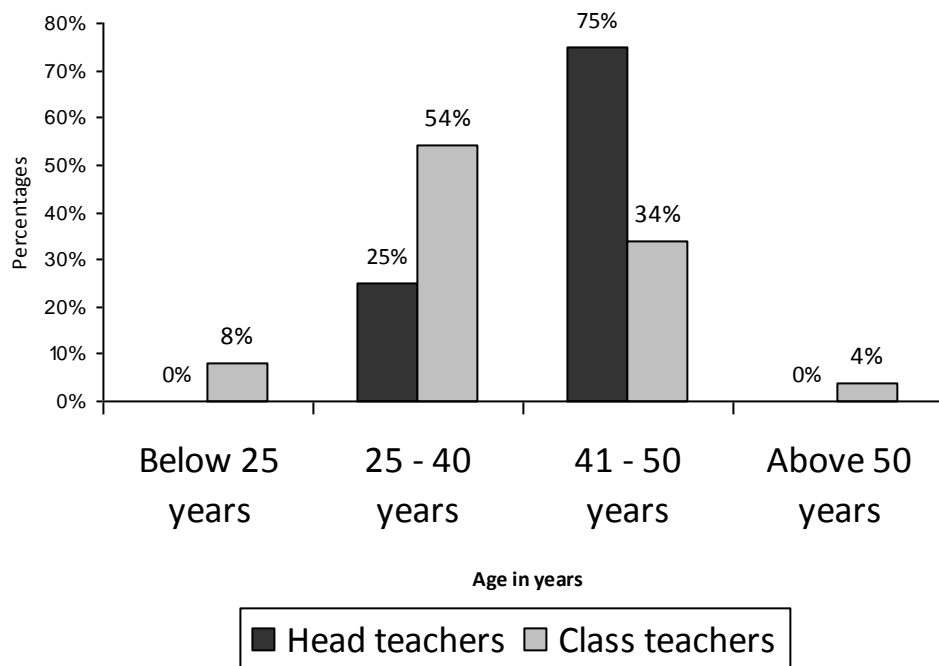
Demographic Information	Head teachers		Teachers	
	Frequency	%	Frequency	%
Gender				
Female	13	27	74	42
Male	22	63	101	58
Total	35	100	175	100

Table 4.1 shows that majority of the head teachers 66% and 58% of class teacher were male. This implies that the study sampled both gender but the majorities were male. This shows that the district was a male dominated therefore female teachers should be given opportunities of been head teachers in primary school in Navakholo District

4.3.1 Age of the respondent

The study assessed the age of the respondents; the results are presented in Figure 4.1.

Figure 4.1 Age of the respondents



The researcher used age of the respondents to determine at what age is one eligible to become a head teacher and that to be a head teacher, one must have teaching experience. Majority of the head teachers 75% had age of between 41 - 50 years while a majority of class teachers 54% had ages between 25 – 40 years. This implies that the sampled respondents had enough teaching experience and were mature enough to understand the school based factors influencing the quality of Free Primary Education in public primary schools.

4.3.2 Level of education of the head teacher and teachers

The study assessed the level of education of the respondents, the results are presented in Table 4.2.

(Lukas, 1922) notes that it is school teachers who are considered mentors of any society therefore it is ostensibly normal to design, develop, prepare and produce knowledgeable school teachers. Lukas asserts teachers' education has to be the main pillar of any established system of education. High quality teachers have a significant impact on their learners. In this case teachers' education is regarded as a driving force behind development in any field that is why the researcher wanted to establish the level of education of the majority of the teachers in relation to the study. The results are presented in table 4.2

Table 4.2 Level of education of the respondents

Demographic Information	Head teachers		Teachers	
	Frequency	%	Frequency	%
Level of Education				
P1	0	0	13	8
Diploma	7	20	89	51
ATS 111 & Diploma	8	23	20	11
BED	17	49	44	25
Masters	3	8	9	5
Total	35	100	175	100

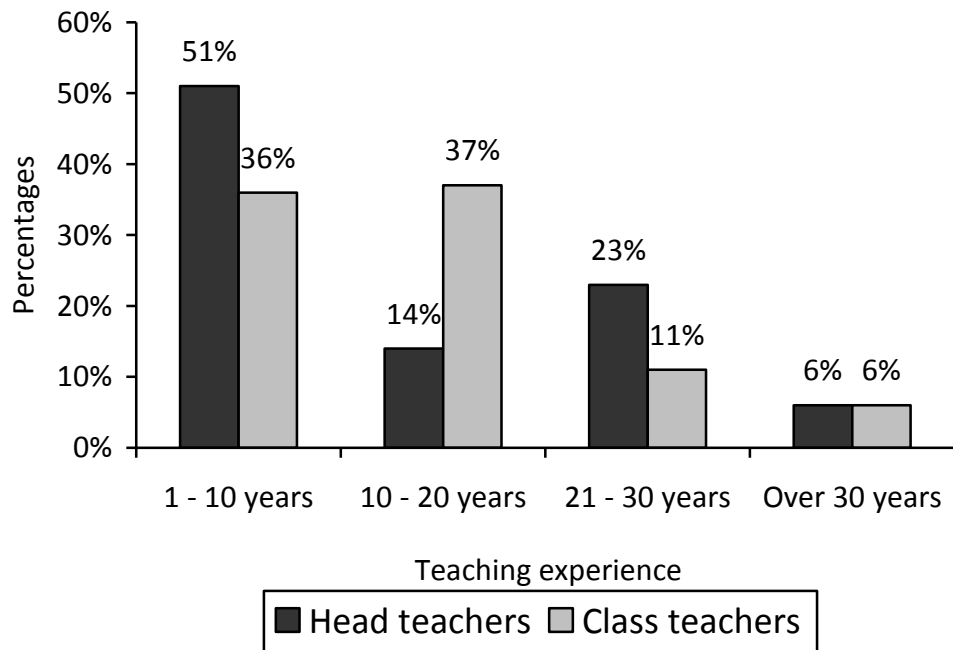
The level of education of the teachers was sought. Majority of the head teachers 49% had bachelor's degree as their highest level of education. Majority 51% of the class teachers had diploma as their highest level of education. This implies that the

respondents in the schools in Navakholo division are qualified to undertake their duties as class teachers and head teachers.

The findings concurred with Brown and Duguid (2003) who found that highly skilled personnel enhance production of high quality outcomes and effective quality improvement in an enterprise.

The study assessed the teaching experience of the head teachers and class teachers respondents, the results are presented in Figure 4.2.

Figure 4.2 Teaching experience of the respondents



In order to achieve the main aim of the study the researcher sought teaching experience of the head teachers and teachers' respondents. Experience is the key to competitiveness and that the longer the experience the more effective the teacher

becomes. The study investigated the experience of the head teachers and class teachers. Majority to know the school based factors influencing quality of Free Primary Education Majority of the head teachers 73% had worked for 1 – 10 years while majority 37% of the class teachers had experience of 11 – 20 years. This implies that the study sample had enough experienced head teachers who know the school based factors influencing quality of Free Primary Education in public primary schools in Navakholo District, Kenya.

General changes that occurred as a result of FPE class teachers were asked the changes that occurred as a result of FPE. The responses were as per Table 4.3.

Table 4.3 Changes as result of Free Primary Education

Changes	Frequency	%
Increased enrollment	166	95
Readmission of drop out	34	19
Drop in teaching quality	171	98
Improved book availability	5	3
Increased retention rate	32	18
Low teacher morale	72	41

From Table 4.3, majority 95% of the class teachers indicated that increased enrollment had been realized after introduction of Free Primary Education. A majority 98% of the class teachers respondents indicated that there has been drop in teaching quality while a most 41% indicated that there has been low teacher

morale after introduction of FPE. A few class teachers indicated that there has been readmission of drop outs, improved book availability and increased retention rate. These findings show that the government has a lot to do in terms of providing the learning resources required for realization of quality education. The inadequate books and teachers might be affecting the quality of Free Primary Education in public primary schools.

4.4 Influence of Physical Facilities on the Quality of Free Primary Education in Public Primary Schools

The study explored the influence of physical facilities on the quality of Free Primary Education. The researcher studied the development programs that the schools had undertaken in the last 10 years and availability of physical facilities in the schools.

The study assessed if the schools headteachers had undertaken any projects in the last ten years, the results are presented in Table 4.4.

Table 4.4 Adequacy of physical facilities by headteacher

Development programs	Frequency	%
Head teachers office	5	14
Staff room	10	29
Water tank	13	37
Deputy head teacher office	8	23
Classroom	19	54
Total	35	100

Table 4.4 shows that 23% of the head teachers respondents indicated that their schools had built deputy headteacher's office. 14% indicated that they had build a head teachers office, 29% indicated that they had come up with staff room while 37% indicated that they had build a water tank. A majority 54% indicated that they had build classrooms in their schools. This shows that public primary schools have not concentrate on development programs in the last ten years. This might be affecting the quality of Free Primary Education in public primary schools.

This findings confirms (Oketch and Rolleston, 2007) study that indicated to maintain quality of education, there should be reasserting of the role of the teacher in the teaching-learning process, modernizing curricula and textbooks, improving physical facilities, and introducing activity-oriented new sciences at all levels of school education.

4.4.1 Availability of physical facilities influence quality of education

The study assessed if the class teachers find that availability of physical facilities influences the quality of education, the results are presented in Figure 4.3.

Figure 4.3 Availability of physical facilities influence quality of education

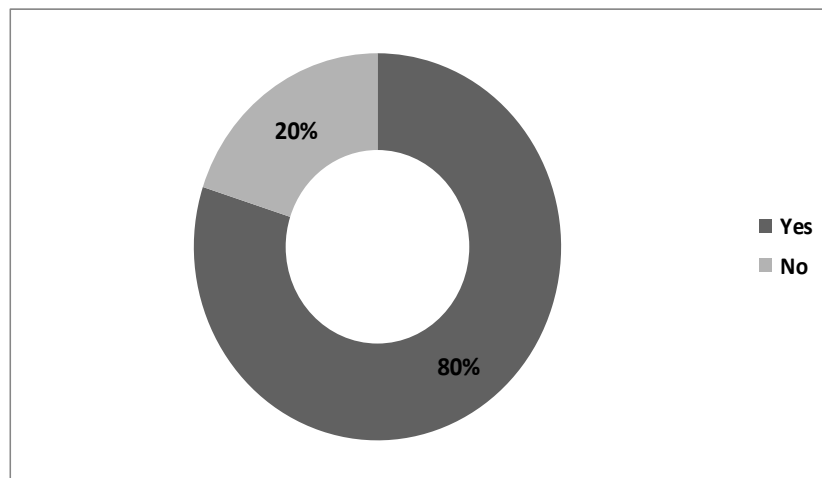


Figure 4.3 shows that a majority (80%) of the class teachers respondents indicated that availability of physical facilities influence the quality of Free Primary Education in their school. Only (20%) did not find the availability of physical facilities to be influencing quality of education. This shows that most of the pupils' quality of education is influenced by availability of physical facilities and therefore the government should strive to provide adequate physical facilities to improve the quality of education.

4.4.2 Teaching aids to promote the quality of FPE

The class teachers were asked if their schools have adequate teaching aids to promote quality of FPE. The results are presented in Table 4.5.

Table 4.5 Schools have adequate teaching aids to promote quality of FPE

Response	Frequency	%
Yes	36	20
No	101	58
Not sure	38	22
Total	175	100

Table 4.5 shows that majority of the class teacher respondents (58% said that Schools have adequate teaching aids to promote quality of FPE. Therefore for improved quality of FPE and performance, the primary schools should be serious in the provision of teaching aids. Education facilities are linked to quality in terms of human resources and in-school resources. Availability of resources such as textbooks, desks and blackboards has been found to influence quality of education (Brock & Cammish, 1997; Molteno et al., 2000), as have various aspects of teaching and learning processes.

The class teachers were asked about the adequacy of physical facilities. The results are presented in Table 4.6.

Table 4.6 Adequacy of physical facilities

Response	Library		Chairs/desks		Staffroom	
	Frequency	%	Frequency	%	Frequency	%
Unavailable	36	21	12	7	4	2
Very inadequate	81	46	102	58	112	64
Inadequate	18	10	9	5	3	2
Adequate	34	19	31	18	56	32
Very adequate	6	4	21	12	0	0
Total	175	100	175	100	175	100

Table 4.6 shows that majority of the class teacher respondents (56%) indicated that their schools have inadequate library facility to promote quality of FPE. Therefore for improved quality of FPE and performance, the primary schools should be serious in the provision of library facilities. Majority of the class teacher respondents (63%) indicated that their schools have inadequate chairs and desks to promote quality of FPE. Majority of the class teacher respondents (66%) indicated that their schools have inadequate staffroom to promote quality of FPE. Therefore for improved quality of FPE and performance, the primary schools should be provided with well-furnished library facilities, desks, chairs and staffroom. Education facilities are linked to quality in terms of human resources and in-school resources. Availability of resources such as textbooks, desks and blackboards have

been found to influence quality of education (Brock & Cammish, 1997; Molteno et al., 2000), as have various aspects of teaching and learning processes.

The researcher then sought to know if the number of pupils exceeded the available human and physical facilities. The results are presented in Table 4.7.

Table 4.7 Number of pupils exceeded the available human and physical facilities

Response	Frequency	%
Yes	102	58
No	45	26
Not sure	30	16
Total	175	100

Table 4.7 shows that a majority (58%) of the class teachers indicated that number of pupils exceeded the available human and physical facilities. This might be affecting the quality of FPE in the public primary schools in the district. This is reflected in a study done in Kenya where the number of pupils was found to exceed the available human and physical facilities in the 18,000 public schools. The teacher-pupil ratio steadily increased from the recommended 1:40 pupils per class to between 1:60 and 1:90 pupils per class (MOEST, 2010).

4.5 Assess how Enrollment affect the quality of FPE in Public Primary Schools

The researcher then sought to investigate the influence of enrollment on pupil's quality of FPE in the public primary schools. The study investigated the current enrollment per class in the public schools in Navakholo district, if school enrollment influences the quality of education and state of enrollment in the schools.

The researcher started by probing the current enrollment per class in the public schools in Navakholo district. The results are shown in Table 4.8.

Table 4.8 Current enrollment per class in the schools

Enrollment	Frequency	%
Less than 40 pupils	10	5
41 – 50 pupils	55	31
51 – 60 pupils	87	50
Over 61 pupils	23	14
Total	175	100

Table 4.8 shows that majority (64%) of the class teachers respondents indicated that current enrollment per class in their school to be between 51 to over 61 pupils. Only (5%) indicated to have less than 40 pupils per class. this might be affecting the quality of FPE because of the large number of pupils in classes. This is

reflected in a study carried out by Willams (2000) it was found that children who were in classes of 25 or more were 1.5 times more likely to demonstrate lower tests scores and increased grade repetition. Indeed quality education and learning does not take place by simply packing children in to large standardized classes.

The study assessed if the class teachers find that school enrollment influences the quality of education, the results are presented in Figure 4.4.

Figure 4.4 School enrollment influence quality of education

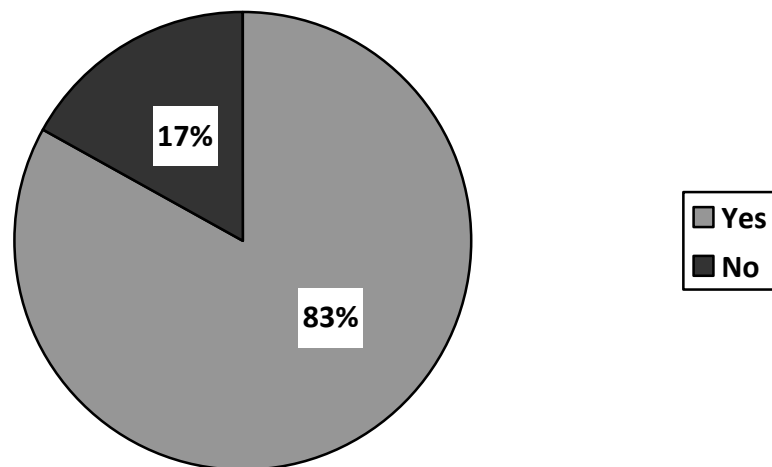


Figure 4.4 shows that majority (83%) of the class teachers respondents indicated that school enrollment influence the quality of Free Primary Education in their school. Only (17%) did not find the school enrollment to be influencing quality of education. This shows that most of the pupils' quality of education is influenced by increased enrollment in the primary schools. This is explained by Saitoti (2011) who notes that Kenya has realized momentous achievements in the educations

sector. The number of public primary schools has increased from 6,058 in 1963 to 7.2 million in 2003 with an extra 1.3 million enrolling in 2003. The enrollment ratio in primary has increased from 50% in 1963 to 87.6% in 2000. FPE has raised gross enrolment to 104% and net enrolment rate is 89%.

The study assessed if the state of enrollment in public primary schools in the district, the results are presented in Table 4.9.

Table 4.9 State of enrollment in public primary schools

Response	Frequency	%
Very good	0	0
Good	1	10
Satisfactory	3	30
Unsatisfactory	6	60
Total	10	100

Table 4.9 shows that the state of enrollment in (60%) of the public primary schools in Navakholo district was unsatisfactory. This was noted through observation by the researcher. This must be affecting the quality of FPE in the district. The findings relate to (Wamukuru, 2011) who found that the implementation of FPE programme witnessed an increase in enrollment in primary schools nationally. A record of 8 million children in registered in various schools across the country of FPE.

4.6 Influence of Instructional Material on the quality of Free Primary Education in Public Primary Schools

The researcher investigated the influence of instructional material on the quality of Free Primary Education in Public Primary Schools. The researcher studied the usage of teaching aids and the state of instructional materials in the primary schools.

The study probed the resources provided by the government. The results are shown in Table 4.10.

Table 4.10: Teaching/learning resources provided by the government

Resources	Frequency	%
Books	122	70
Lab equipment	24	14
Reference material	12	7
Chalks/ dusters	5	2
Exam stationary	12	7
Total	175	100

Table 4.10 shows that the entire (70%) of the class teachers respondents indicated that the teaching and learning resources provided by the government mostly includes books. The findings indicated that the government does not provide lab equipment, reference material, chalks, dusters and exam stationeries. This finding

is confirmed by (Opitia, 2010) who found that many teachers in developing countries work in schools that lack adequate instructional materials or basic infrastructure materials like textbooks. This is a primary obstacle affecting the quality of FPE. However he further stated that these severe challenges affecting developing countries were not unique; they resembled the United States schools with the lowest income students' population.

The study probed if Instructional material influences the quality of FPE. The results are shown in Table 4.11.

Table 4.11: Instructional material influences the quality of FPE

Response	Head teachers		Class teachers	
	Frequency	%	Frequency	%
Strongly agree	15	43	87	50
Agree	8	23	33	19
Undecided	2	6	9	5
Disagree	7	20	15	8
Strongly disagree	3	8	31	18
Total	35	100	175	100

Table 4.11 shows that the entire (66%) of the head teachers and (69%) of the class teachers respondents indicated that instructional material influences the quality of FPE. This finding is confirmed in a study done in Zimbabwe, Smith (2003) found

that in some schools in Zimbabwe’s Southern Province teachers did not prepare lessons, had no schemes of work, and left pupils’ assignments unmarked. Such classroom practices and implicit lack of in-service teacher development has serious implications for quality education.

The researcher then investigated if the school employs usage of teaching aids in teaching. The results are shown in Table 4.12.

Table 4.12 The school employs usage of teaching aids

Response	Head teachers		Class teachers	
	Frequency	%	Frequency	%
Strongly agree	8	23	13	7
Agree	20	57	24	13
Undecided	0	0	10	6
Disagree	5	14	36	21
Strongly disagree	2	6	92	53
Total	35	100	175	100

Table 4.12 shows that majority (80%) of the head teachers respondents agreed that their schools employs usage of teaching aids. Majority (74%) of the class teachers disagreed that their schools employs usage of teaching aids. This might be

affecting the quality of FPE since it is an important factor to be observed by the teacher while teaching.

The study probed the adequacy of teaching and learning materials. The results are shown in Table 4.13.

Table 4.13: Adequacy of teaching and learning materials

Response	Textbooks		Exercise books		Laboratory equipment	
	Freq	%	Freq	%	Freq	%
Unavailable	36	20	2	3	29	16
Very inadequate	101	58	102	58	99	56
Inadequate	38	22	14	8	37	21
Adequate	0	0	44	25	8	4
Very adequate	0	0	8	14	2	3
Total	175	100	175	100	175	100

Table 4.13 shows that the majority (80%) of class teachers indicated that there is inadequate textbooks in their schools. A majority (66%) of the class teachers respondents indicated that the exercise books are inadequate in their schools.

There is also inadequate laboratory equipment in majority of the public primary schools in Navakholo district since (77%) indicated that. This finding is confirmed in a study by Smith (2003) who found that in some schools in Zimbabwe's Southern Province teachers did not prepare lessons, had no schemes of work, and left pupils' assignments unmarked. Such classroom practices and implicit lack of in-service teacher development has serious implications for quality education.

The state of instructional materials in the primary schools in the district was put into perspective. The findings are presented in Table 4.14.

Table 4.14 State of instructional materials in the primary schools

Response	Frequency	%
Very good	0	0
Good	1	10
Satisfactory	1	10
Unsatisfactory	8	80
Total	10	100

Table 4.14 shows that it was observed that a majority (80%) of the primary schools in the district had unsatisfactory state of instructional material. This might be affecting the quality of FPE in the district. According to (UNICEF 2000) teaching styles in many places remain traditional, teachers centered, and fairly rigid or even authoritarian. This ensures that children are afraid to learn by asking questions and instead must possibly adapt to the teacher what is taught. Teachers must demonstrate continued support for children centered learning.

4.7 Effect of Learning Techniques on the quality of Free Primary Education in Public Primary Schools

The researcher then investigated the Effect of learning techniques on the quality of Free Primary Education in Public Primary Schools.

The researcher investigated is the respondents feel that the learning techniques have effect on the quality of Free Primary Education in Public Primary Schools. The study findings are presented in Table 4.15.

Table 4.15: Learning techniques influences the quality of FPE

Response	Head teachers		Class teachers	
	Frequency	%	Frequency	%
Strongly agree	15	43	87	50
Agree	11	26	33	19
Undecided	2	6	9	5
Disagree	7	20	15	8
Strongly disagree	0	0	31	18
Total	35	100	175	100

Table 4.15 shows that the entire (69%) of the head teachers and (69%) of the class teachers respondents indicated that learning techniques influences the quality of FPE. This finding is confirmed in teachers training and professional development needs not to be restricted to off- site teachers training. Teaching styles in many places remain traditional, teachers centered, and fairly rigid or even authoritarian. This ensures that children are afraid to learn by asking

questions and instead must possibly adapt to the teacher what is taught. Teachers must demonstrate continued support for children centered learning (UNICEF 2000).

The pupils’ getting social through playing was put into perspective. The findings are presented in Table 4.16.

Table 4.16 Quality content should be student – centered

Response	Frequency	%
Yes	128	73
No	17	10
Sometimes	30	17
Total	175	100

Table 4.11 shows that a majority (73%) of the class teachers indicated that the quality content should be student – centered. The schools should therefore be encouraged to allow for student – centered learning technique in order to improve the quality of FPE in primary schools. These findings agree with (UNICEF 2000) that found out that quality content should be student – centered, non-discriminatory, and standards based on curriculum structure. This means that good curriculum should take in to account individual differences in students learning be gander sensitive, and be inclusive of children from diverse backgrounds.

The state of learning techniques in the primary schools was put into perspective.

The findings are presented in Table 4.17.

Table 4.17 State of learning techniques in the primary schools

Response	Frequency	%
Very good	0	0
Good	2	20
Satisfactory	0	0
Unsatisfactory	8	80
Total	10	100

Table 4.17 shows that it was observed that a majority (80%) of the primary schools in the district had unsatisfactory state of learning techniques. in the primary schools. This definitely affects the quality of FPE in the district. According to (UNICEF 2000) teaching styles in many places remain traditional, teachers centered, and fairly rigid or even authoritarian. This ensures that children are afraid to learn by asking questions and instead must possibly adapt to the teacher what is taught. Teachers must demonstrate continued support for children centered learning.

4.8 Influence of Teacher – pupil ratio on the quality of FPE in Public Primary Schools

The researcher then sought to investigate the influence of teacher-pupil ratio on the quality of FPE in public primary schools. The researcher started by probing on the adequacy of teachers to effectively handle the pupils in their schools. The results are shown in Table 4.18.

Table 4.18 Teacher-pupil ratio influences the quality of FPE

Response	Head teachers		Class teachers	
	Frequency	%	Frequency	%
Strongly agree	29	83	116	66
Agree	6	17	45	26
Undecided	0	0	0	0
Disagree	0	0	10	6
Strongly disagree	0	0	4	2
Total	35	100	175	100

Table 4.18 shows that the entire (100%) of the head teachers and (92%) of the class teachers respondents indicated that teacher-pupil ratio influences the quality of FPE. This finding is confirmed in a study done in Ghana, states that Pupil-Teacher Ratio (PTR) is one of the key input indicators used as a proxy measure for education quality within

the Education Support Programmes (ESP). It is also used to reflect access and efficiency within the education sector. In large classes with a number above 50, it was observed that individual pupil-teacher interactions were minimal. Class management and individual pupil-teacher interactions at the primary school level were observed to be more manageable in the classes with PTR close to 35:1 (Ampiah, 2008).

The researcher then investigated if the school replaces the teachers who transfer in time. The results are shown in Table 4.19.

Table 4.19: The school replaces the teachers who transfer in time

Response	Head teachers		Class teachers	
	Frequency	%	Frequency	%
Strongly agree	8	23	13	7
Agree	20	57	14	8
Undecided	0	0	10	6
Disagree	5	14	36	21
Strongly disagree	2	6	102	58
Total	35	100	175	100

Table 4.19 shows that majority (57%) of the head teachers respondents agreed that their schools replaces the teachers who are transferred on time. Majority (58%) of

the class teachers disagreed that their schools replaces the transferred teachers on time. According to (Benbow, Mizrachi, Oliver and Said Moshiro, 2007) put it that, an ideal teacher - pupil ratio should be 1: 40. The debate on class size and pupil-teacher ratio, and their impact on learning achievement may not be conclusive, especially in Kenya with the introduction of FPE which advocates that all children to be absorbed in school regardless of the social background (Aphard, 2008 Paper No 38).

The study investigated if the Board of Management employs more teachers to cover for the less number. The results are shown in Table 4.20.

Table 4.20 Board of Management employs more teachers to cover for the less number

Response	Head teachers		Class teachers	
	Frequency	%	Frequency	%
Strongly agree	26	75	45	26
Agree	6	17	23	13
Undecided	0	0	8	5
Disagree	0	0	61	35
Strongly disagree	3	8	38	22
Total	35	100	175	100

Table 4.20 shows that the entire (75%) of the head teachers respondents indicated that the Board of Management employs more teachers to cover for the less numbers. Majority (57%) of the class teachers disagreed that the BOM employs more teachers to cover for the less numbers. This findings is explained by (Sifuna, 2005) who noted that many school management committees in Kenya are of the opinion that as a result on the ban of levies, they are unable to recruit extra teachers through the PTAs. In addition, these problems are contributing significantly to high school dropout rates and have seriously affected the inflow of pupils in primary education.

CHAPTER FIVE
SUMMARY OF THE STUDY, CONCLUSIONS AND
RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the study and makes conclusions based on the results. The implications from the findings and areas for further research are also presented.

5.2 Summary of the Study

The study aimed to find out the school based factors influencing quality of free primary education in public primary schools in Navakholo District, Kenya. The researcher singled out five school based factors influencing the quality of Free Primary Education.

The study revealed that a majority 102 (58%) of the class teachers indicated that number of pupils exceeded the available human and physical facilities. Majority of the class teacher respondents 101 (58%) said that Schools have adequate teaching aids to promote quality of FPE. Majority 140 (80%) of the class teachers respondents indicated that availability of physical facilities influence the quality of Free Primary Education in their school. A few 8 (23%) of the head teachers respondents indicated that there schools had undertaken various developments. A few 5 (14%) indicated that they had build a head teachers office, 10 (29%) indicated that they had come up with staff room while 13 (37%) indicated that they

had build a water tank. A majority (54%) indicated that they had build classrooms in their schools.

The study further revealed that a majority (83%) of the class teachers respondents indicated that school enrollment influence the quality of Free Primary Education in their school. Only (17%) did not find the school enrollment to be influencing quality of education. Majority (64%) of the class teachers respondents indicated that current enrollment per class in their school to be between 51 to over 61 pupils. The state of enrollment in (60%) of the public primary schools in Navakholo district was unsatisfactory

The study further established that a majority (80%) of the primary schools in the district had unsatisfactory state of instructional material. Majority (80%) of the head teachers respondents agreed that their schools replaces the teachers who are transferred on time. Majority (74%) of the class teachers disagreed that their schools replaces the transferred teachers on time. The entire (66%) of the head teachers and (69%) of the class teachers respondents indicated that instructional material influences the quality of FPE.

The study also revealed that majority (80%) of the primary schools in the district had unsatisfactory state of learning techniques. in the primary schools. Majority (73%) of the class teachers indicated that the quality content should be student centered the entire (69%) of the head teachers and (69%) of the class teachers indicated that learning techniques influences the quality of FPE.

The study established that the entire (100%) of the head teachers and (92%) of the class teachers respondents indicated that teacher-pupil ratio influences the quality of FPE. Majority (80%) of the head teachers respondents agreed that their schools replaces the teachers who are transferred on time. Majority (79%) of the class teachers disagreed that their schools replaces the transferred teachers on time. The entire (75%) of the head teachers respondents indicated that the Board of Management employs more teachers to cover for the less numbers. Majority (57%) of the class teachers disagreed that the BOM employs more teachers to cover for the less numbers.

5.3 Conclusions

The physical facilities in the public primary schools in the district are not enough for the high pupils in the schools.

There is very high pupils' enrollment in the schools that is affecting the quality of FPE in the public primary schools. The schools are not further developed with the increasing number of pupils in the schools.

The schools do not have adequate instructional material that affects the quality of Free Primary Education in Public Primary schools.

The inappropriate learning techniques employed in the primary schools definitely affects the quality of Free Primary Education. The teachers do not have the current learning techniques to offer to the pupils.

The teacher – pupil ratio is very high since the number of pupils is always increasing while deployment of teachers to cater for the new pupils. This affects the quality of FPE in public primary Schools.

5.4 Recommendations

The head teacher should be sensitized by the education stakeholders that include the DEO on the importance of instructional materials and learning techniques in primary schools. This will improve the quality of FPE offered.

The Kenyan government should build more primary schools in the district to cater for the high pupils' enrolment. This will improve the teacher-pupil ratio which is currently very high and as a result the quality of education will improve.

There should be enforcement of laws by the Ministry of Education and other educational stakeholders to guide the head teachers on the planning of schools. Especially the development of physical facilities since their availability influences quality of FPE positively.

5.5 Suggestions for Further Research

The researcher recommends the following areas for further research;

- i. Effect of physical facilities on the quality of Free Primary Education in primary schools.
- ii. Influence of financial resources of a schools on the quality of Free primary Education in primary schools.

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APPENDICES

Appendix I: Introductory Letter to Respondents

Mango Rodgers W.

P.O Box 92,

Nairobi, Kenya

Dear respondents,

**RE: QUESTIONNAIRE OF THE SCHOOL FACTORS THAT INFLUENCE
THE QUALITY OF FPE IN NAVAKHOLO DISTRICT**

I am a post graduate student at the University of Nairobi, undertaking a research on the school factors influencing the quality of FPE in public primary schools. Your school has been selected to participate in the research. I request you kindly to fill the attached questionnaires as sincerely as possible.

Your contribution will be vital to the development of quality FPE in our district and Kenya as a whole.

Thank you very much for your cooperation.

Yours faithfully,

Mango Rogers W.

Appendix II: Questionnaire for the Head teachers

PART A: Demographic Information

Please indicate the correct option by ticking in the space provided (✓). For the structured questions use the space provided.....

1. What is your gender? Male () Female ()
2. What is your professional qualification
P1 () Diploma () ATS () BED ()
Any other specify.....
3. How long have you been a head teacher?
1-10 year () 21 -30 years ()
10-20 years () over 30 years ()

PART B: Physical facilities and quality education

4. What educational projects have the school undertaken since 2003 to date.

Please tick as many as applies to you

- a. Headteacher office ()
- b. Deputy headteacher office ()
- c. Staff room ()
- d. Water tank ()
- e. Classrooms ()
- f. Any other specify.....

5. Please explain how physical facilities affect the quality of education in your school.

.....

6. Please indicate the current school enrolments by class (2012)

Enrolment	Standard							
	1	2	3	4	5	6	7	8
Boys								
Girls								
Total								

7. How many pupils must share one textbook in

English [] Kiswahili [] Mathematics []
 Science [] Social studies [] CRE []

8. Are there enough exercise books for every pupil?

Yes [] No []

If the answer is No, why?

.....

9. Are there enough writing tools for the pupils to use?

Yes [] No []

If the answer is No, why?

.....

10. Are there available reference material/additional classroom objects/poster in the classroom?

Yes [] No []

If the answer is No, why?

.....

11. a) How many pupils toilets to you have for

Boys Girls

b) KCPE performance 2001 – 2012(Mean score)

2001.....	2002	2003
2004.....	2005	2006
2007.....	2008	2009
2010.....	2011.....	2012.....

PART C: Teacher pupils' ratio and quality education

12. Give the total number of teachers in the school.....

13. Comment on the adequacy of teaching staff. That is a teacher per class of not more than 40 pupils.

Adequate () inadequate ()

14. If the answer to number 8 above is inadequate, how have you been to cope with the inadequate teaching staff? Please tick as many as applies to you

- a. Employing PTA teachers ()
- b. Volunteer teachers ()
- c. Teaching in shift ()
- d. Multigrade teaching ()
- e. Others please specify

15. What is the average teaching workload on the teachers in the school?

- Less than 20 lessons per week () 31-40 lessons per week ()
- 20-31 lessons per week () More than 40 lessons per week ()

PART D: High enrolment and the quality of FPE

16. Do you have proper storage facilities in for the text books in the school?

- Yes () No ()

17. On average what is the current text book/pupil ratio?

- Lower primary 1:2 () 1:1 () 1:3 ()
- Upper primary 1:2 () 1:11 () 1:3 ()

Other please specify.....

18. Where do you store the text book in the school?

- a. Headteacher office ()
- b. Deputy headteacher office ()
- c. In the class rooms ()
- d. Any other please specify.....

19. Are the storage facilities scarred?

Yes () No ()

20. Have all the books been covered using the polythene covers

Yes () No ()

PART F: Learning techniques and quality education

21. Which of the following courses have you attended?

- a. guidance and counselling ()
- b. prism course ()
- c. RESSP ()
- d. Any other, specify.....

22. Has the school been sponsoring teachers to attend educational seminars/sources since the inceptions of FPE?

Yes () No ()

23. If the answer is no, what are the reasons for not sponsoring them?

.....
.....

24. Quality content should be student – centered

Yes () No () Sometimes ()

25. if the answer is yes, comment on the adequacy of the courses in terms of

- a. Number of teachers attending.....

b. relevance of the courses to meet the challenges brought about FPE

.....
.....

26. What are some of the challenges you face as a headteacher in your administrative duties? Please tick as many as applied to you.

a. Lack of support from the parents and community ()

b. Dealing with an inadequate teaching staff ()

c. Inadequate teaching/learning materials ()

d. Over enrolment in the class rooms ()

e. Dealing with over age learners ()

f. Others please specify.....

Appendix III: Questionnaire for the Class teachers

You are kindly requested to complete this questionnaire by indicating your response in the space (✓) and filling the blanks by giving as many details as possible.

PART A: Demographic information

1. What is your gender?

Male () Female ()

2. What is your highest professional qualification?

P1 () ATS ()

Diploma () BED () Any other specify.....

3. What is your teaching experience in years?

1-5 years () 6-10 () 11-15 years ()

16-20 () over 20 years ()

PART B Physical facilities and quality education

4. Please indicate the class

5. What is the current enrolment in the class?

a) Less than 40 ()

b) 41-50

c) 51-60

d) Over 61 pupils ()

6. How many desks do you have in your class.....

.....

PART C Teacher – Pupil ratio and quality education

7. Do you give assignment yes () No ()

8. How often do you give assignment?

a) On daily basis ()

b) One week ()

c) Not given at all () Any other please specify

9. On average how many question do you give to your pupils as assignment and home work?

a) Less than 5 questions ()

b) 5-10 questions ()

c) More than 10 question ()

d) Over 10 question ()

10. Do you manage to make all the assignment you give to the pupils

.....

.....

PART D: Instructional materials and quality education

11. Do you have proper storage facilities for the class text books?

Yes ()

No ()

12. How do you ensure the durability of the textbooks? Please explain

.....

PART F: In service teacher training courses and quality education

13. Which of the following in service courses or seminars have you attended?

- a) guidance and counselling ()
- b) PRISM courses ()
- c) SbTD ()
- d) Any other please specify.....

14. What challenges have you encountered as a class teacher?

- a) Non cooperative parents ()
- b) In adequate teaching/learning materials ()
- c) Over enrolment in classes ()
- d) Unattended lessons ()
- e) If any other specify

.....

Appendix IV: Observation Schedule

Dimensions	Key indicators	Very Good	Good	Satisfactory	Unsatisfactory
Availability of physical facilities in schools	<ul style="list-style-type: none"> • Condition of buildings • Classroom space • Storage areas • Sporting facilities • Recreational areas • Water and sanitation • Safety and security • Toilet facilities 				
School enrollment	<ul style="list-style-type: none"> • Unsteady enrolment • Number of pupils per class • Keeping of records 				
Availability of instructional material	<ul style="list-style-type: none"> • Teaching aids • Lesson structure • Teacher-student ratio • Instructional material • Classroom display 				
Learning techniques used in the schools	<ul style="list-style-type: none"> • Student participation • Assessment procedures 				
Teacher-pupil ratio	<ul style="list-style-type: none"> • Number of teacher • Number of pupils 				