

## **The Impact of Free Primary Education on Pupil-Teacher Ratio in Kuria East Constituency, Kenya**

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**Abstract:** *This study is an assessment of how the introduction of Free Primary Education program affected pupils' enrollment in public primary schools in Kuria East Constituency and how the resulting pupil - teacher ratio affected teacher effectiveness in the area between 1998 and 2008. The study is anchored on social systems theory especially on how it is essential to plan a program so as to achieve desirable results. Simple random sampling technique was used to identify 100 teacher respondents and 25 head teachers from 25 schools that were identified through stratified sampling of a total 68 schools in the area. The study established that enrollment in schools increased by more than 30% in 2003 and the pupil-teacher ratio increased from 42:1 in 1998 to 53:1 in 2003 and rose again to 60:1 in 2006 and remained the same until 2008. The study recommended that the government should set a minimum threshold of the pupil-teacher ratio by recruiting more teachers to meet the shortfall; that parents should collaborate with teachers in ensuring that children complete their homework, and also monitor their performances in order to reduce indiscipline arising from the enrollment of older pupils; and that teachers should be taken through in-service courses for training on how to handle large and heterogeneous classes.*

**Keywords:** *Free Primary Education, School enrollment, Pupil-teacher ratio, Kuria East Constituency.*

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### **I. Introduction**

Research on Free Primary Education (FPE) in Kenya has shown that the program has faced a lot of challenges since its re-introduction in 2003 (Republic of Kenya, 2005). Many researchers agree that FPE has created significant problems like overcrowded classrooms, high pupil-teacher ratio, inadequate infrastructure and lack of sanitation facilities (Itunga, 2011; Mushtaq 2008; Sifuna, 2005), while others observe that quality of instruction in primary schools is no longer satisfactory among a host of other issues (Sang and Kipsoi, 2005).

A survey on FPE program in Kenya carried out by UNESCO in 2005 found that some of the major challenges facing the free primary education initiative included increased number of pupils, shortage of teachers, lack of clear enrollment guidelines, insufficient teacher consultations and expanded roles for head teachers. Though the study appreciated that teachers played a pivotal role in the implementation of FPE, it was short in pointing out how this impacted on school results (UNESCO, 2005).

Mwendwa (2011) states that though FPE gave more pupils from poor backgrounds an opportunity to access primary education which had eluded them for several decades, the resulting pupil-teacher ratio is critical to the implementation of the program as it has some drawbacks on academic performance (Mwendwa, 2011). As such, the goal of FPE 'to equip pupils with quality education' continues to be threatened because pupils continue to lack enough quality assessment (UNESCO, 2005).

The initiative to have FPE in Kenya starting 2003 after the National Rainbow Coalition (NARC) came into power is not the first time that the Kenyan government toyed with the idea of free primary learning as it was also the case shortly after independence when the Kenya African National Union (KANU) sought to fulfill its 1963 Electoral Manifesto. The idea also featured prominently in the Sessional Paper no. 10 of 1965 on African Socialism (Ngugi, 2003). This initiative was properly actualized in 1971 when the founding President Jomo Kenyatta promised free education to disadvantaged pupils living in arid and semi-arid lands followed by the introduction of free learning to all pupils in class 1-4 and the capping of tuition fees at Ksh 60 per annum for all pupils in class 5-7 two years later. This led to increased enrolment that saw over one million additional schoolchildren enroll into the education system in 1974. Primary schools were unable to handle the massive enrollment and the government imposed "building cost" levies in order to expand school facilities. Unfortunately as is observed by Chuck (2009), the building levies turned out to be more costly than the actual school fees that were levied prior to the introduction of FPE which restricted children from accessing the 'free' primary education. There followed massive dropout of pupils in subsequent years and eventually the Kenyatta government abolished the program altogether.

This position however did not remain for long because upon assuming power in 1978 the second president of the Republic of Kenya Daniel Arap Moi abolished all primary school fees. But according to Oketch and Rolleston (2007) the Moi government found it extremely difficult to maintain its educational budget because of the economic downturn the country experienced in the 1980s. The economic difficulties the country faced made it succumb to Structural Adjustment Programs (SAPs) advocated by the World Bank and the International Monetary Fund (IMF) which among other things demanded cost-sharing in schools an act that made many poor Kenyans to withdraw children from school. As a result many schools witnessed declining enrolments throughout the 1990s falling from 95% in 1991 to 78% in 2001. By 2002 the completion rates for primary schools stood at 50% and primary schools levies stood at between USD50 and USD380 per child per annum depending on the category of the school leading many children from poor households to abandon schooling (Wax, 2003).

The implementation of Universal Primary Education (UPE) in Africa is particularly important because over 40 million pupils of primary school going age in sub Saharan Africa are unable to attend school (Fafunwa, 2003). Fafunwa attributes this problem to inept policy, poorly executed policy reforms, poor institutions and dysfunctional governments. However, most African governments have recently invested in education following recommendations on the need for universal education by international forums like the United Nations Educational Scientific and Cultural Organization (UNESCO) World Conference at Jomtien, Thailand in 1990 and its follow-up in Dakar, Senegal in 2000.

Within the east African region, the country of Malawi took the early queue by introducing FPE in October 1994 following an earlier announcement in June that year by the newly elected government that came into power during the country's first multi-party elections. The problem of enrollment followed the Kenyan script in the 1970s as it increased by 79% from 1.9 million in 1994 to 3.4 million in 1995. The increase of such magnitude challenged the already weak system where some schools already had a pupil - teacher ratio of 70:1 and the presence of 13% unqualified teachers (Abbey, 2003).

In Ghana, the policy of FPE was at the heart of Free Compulsory Universal Basic Education (FCUBE) which started in 1996 with the support of the World Bank and other international donors but did not take off until 2005. Through the famous Education Strategic Plan (ESP) for 2003-2005 the government of Ghana introduced capitation grant to schools nationwide that enabled rolling out FPE. As expected the net enrollment rate at primary school level for children aged 6-11 years increased by 22% between 2005 and 2007 (Sifuna, Chimombo, Ampiah, and Byamugisha, 2009).

Though the FPE program in Kenya has received extensive support for making it possible for many children to afford learning, many pundits are still pessimistic that the challenges facing the sector are bound to remain arguing that the program was born out of political expedience rather than the desire to improve access to free education. Many commentators who argue on this line maintain that the introduction of FPE in 2003 caught Kenya's education system completely off guard and the government did not make adequate preparations for policy implementation. They accuse the NARC government for promising the country free primary education without consulting education stakeholders like education ministry officials, field education officers, school administrators and teachers. They point that the number of teachers was not increased to cater for the increased enrolment and the head teachers were not equipped with ample financial management skills in order to easily take care of the extra responsibilities that came with FPE; and the communication between various stakeholders in regard to the implementation of FPE was poor (Chuck, 2009).

Like the examples of Malawi and Ghana quoted above, the shortage of teachers in Kenya saw the pupil- teacher ratio in all public primary schools rise above 50:1 with some past 70:1 making it impossible for teachers to give learners individual attention or give them satisfactory assignments as they could not cope with marking (UNESCO, 2005). Thus while Kenya aimed to use FPE program to attain Universal Primary Education (UPE) by year 2015, the massive enrolment of pupils in 2003 and the subsequent years and the impact on teacher-pupil ratio became a headache that is yet to be resolved to date. While FPE has done well in giving opportunities to children from less privileged backgrounds to get basic education and all major stakeholders expect the program to succeed, the quality of education under the program is being questioned (UNESCO, 2005). Serious challenges like congested classrooms, limited physical facilities and shortage of teachers, as mentioned earlier in the paper continue to hamper the quality of teaching (Yieke, 2006).

Since the inception of FPE in 2003 the Kenyan government has spent a lot of money on primary education but no studies have been carried out to show how large class sizes affect teachers' effectiveness and quality of teaching which have a bearing on social and economic development of the country. This paper is a summary of a micro research on the impact of the introduction of free primary education on teachers' effectiveness in Kuria East Constituency especially on:

- i. Pupils' enrolment before and after the introduction of Free Primary Education, and
- ii. The impact of the rising pupil - teacher ratio on teacher effectiveness.

## **II. The Concept Of Free Primary Education In Kenya**

The Kenya government has since independence in 1963 made several appraisals on the need to expand educational opportunities as reflected in various policy documents like the Ominde Report of 1964, the Mackay Report of 1981, the Kamunge Report of 1988, the Koech Report of 1992, and all national development plans. As a result the introduction of Free Primary Education in Kenya in 2003 was hailed by many because it was seen as a milestone in providing children from poor backgrounds with basic education (Sifuna, 2005). An assessment of the achievements of FPE in the Kenya Economic Survey of 2010 noted that the program had increased primary school enrolment by almost 50% from 5.9 million to 8.8 million in a period of 7 years (Itunga, 2011).

Fleshman (2005) saw this as a huge step towards the millennium education goal that sought to ensure that every child access primary education by 2015. The initiative was also welcomed by many leaders across the world prompting former U.S. President Bill Clinton in a televised interview in 2004 to state that among the world leaders he would prefer to meet was President Mwai Kibaki of Kenya because of initiating free primary learning. Clinton noted that the provision of FPE was the boldest statement made by a head of state in the year 2003 (Bold, Kimenyi, Mwabu, and Sandefur, 2010).

Critics of the FPE program however argue that it has its own share of problems partly because it was initiated to fulfill an election campaign promise rather than to address a development challenge. Thus the teachers woke up one morning to the reality of large overcrowded classes with pupils who enrolled for free primary education. Fleshman (2005) notes that teachers were not psychologically prepared to accommodate these large numbers. Other researchers also agree that FPE has created significant problems like overcrowded classrooms, high pupil -teacher ratio, scarcity of learning materials and overworked teachers (Itunga, 2011; Mushtaq, 2008; Sifuna, 2005).

Though education stakeholders agree that Kenyans require to a minimum of basic education in order to participate in the socio-economic development of the country, they are also worried about the sustainability of free primary education in its present form. They argue that for free primary education to succeed in terms of offering quality education, the government must take care of the well-being of teachers especially in reducing the current pupil-teacher ratio (Evers, Tomic and Brouwers, 2004). For five years after the introduction of FPE in 2003 the body responsible for employing teachers in Kenya - the Teachers Service Commission (TSC) - only hired teachers to replace those retiring from the service (Oyaro, 2008). Yet lack of enough teachers is a major obstacle to the success of free primary education in the country (Itunga 2011; Mushtaq 2008; Sifuna 2005). The Kenya National Union of Teachers (KNUT) maintains that there is a current shortage of 70,000 primary school teachers in Kenya a fact that led Sifuna (2005) to observe that Kenya would not be on target of attaining the second MDG goal by 2015 if the problems of free primary education were not addressed.

### **2.1 Pupil Enrolment in Free Primary Education**

The World Bank (2004) notes that when fees were abolished in Malawi in 1994 and in Uganda in 1996, pupil enrolment went up by 51% and 70% respectively. Similar policy initiatives in Cameroon in 1999 saw the country's primary school enrollment increase from 88% to 105%, while in Tanzania enrollment rates jumped from 57% to 85% in 2001 (Kenya, 2008). But much as these statistics show that African countries are expanding pupil enrolment at the primary school level, there is no pointer that these governments are investing a lot towards quality education at primary school level.

This is more evident in Kenya where the aim of the FPE program was to give more opportunities to the disadvantaged school-aged children, which was achieved at the inception of the program as more pupils enrolled in majority of schools (ElimuYetu Coalition, 2004). The introduction of FPE saw the national gross enrolment rate (GER) of school age children increase from 92% in 2002 to 104% in 2003 (ElimuYetu Coalition, 2004) resulting in more than 1.5 million children previously out-of-school joining primary schools (Voss, Bedi, Kimalu, Manda, Nafula and Kimenyi, 2004). In 2003, poorer regions of the country witnessed large increase in enrolment (Table1) compared to the richer districts (Bold et al., 2009) because the abolition of school fees removed the biggest hindrance of many poor children from attending school (MOEST, 2004). The GER in public primary schools rose to 98.1% in 2003 climbing further to 101.5% in 2004 (Republic of Kenya, 2005). Statistically, national enrolment of standard 1 pupils rose from 969,000 in 2002 to 1,312,000 in 2003, an increase of 35% (Oketch and Somerset, 2010). Many primary schools were therefore over-crowded leading to a shortage of books and teachers. The schools also faced the problems of discipline as older children returning to school became a source of negative influence to the younger ones and this impacted on how teachers handled the classes (Bold, et al, 2009). Similarly, due to high enrolment and congested classrooms, teachers were unable to teach well and pupils were unable to concentrate (Nkinyangi, 2005).

**Table 1 Enrolment Trends 2002-2004**

District	Overall District Data		
	2002	2003	2004
Kajiado	58,334	66,648	73,981
Nairobi	144,929	205,362	203,061
Mwingi	85,880	97,096	107,261
Gucha	102,145	126,545	122,197
Kisumu	46,511	51,543	55,984
Kwale	88,077	109,456	131,055
Taita Taveta	59,168	62,827	66,855
Embu	56,175	61,814	62,337
Kericho	125,075	133,088	139,183
<b>Total</b>	<b>768,296</b>	<b>916,355</b>	<b>963,918</b>

UNESCO, 2005

## 2.2 The effects of Class-Size and Pupil Teacher Ratio

Although the NARC government anticipated teething problems when it rolled the FPE program in 2003, it did not put in place the infrastructure to facilitate the implementation of the program and the school system was overwhelmed by the over 2 million children who enrolled in primary schools (Too, 2005). Because it takes time to train a teacher, and the electoral campaigns ended in December 2002 meant that the number of teachers remained the same in nearly all public primary schools, and the pupil-teacher ratio rose sharply that there are some schools which still have over 100 pupils per class against the recommended 40 pupils. The schools also faced a shortage of desks for the newly enrolled pupils and making slightly well off parents opt to transfer their children from public primary schools to private schools in search of quality education. Aduda (2005) documents some areas in Kenya where public primary schools pupils still learn while seated on the floor and others under trees. Still many schools teachers admit that they cannot master the faces of all their pupils (Aduda, 2005).

Boy (2006) observes that the FPE program is to blame for poor academic standards in public primary schools in Kenya. However, Vreede (2003) notes that the problem of high pupil- teacher ratio is not unique to Kenya as Uganda too experienced similar problems when it introduced free primary education in 1997. In Kenya the enrolment in public primary schools increased from 5.8 million in 2002 to about 7.2 million in 2003 following the introduction of free primary education and stood at 7.5 million by 2004. Despite this, the number of teachers remained unchanged (MOEST, 2004).

But why did the government of Kenya introduce free primary learning without making sure that all other necessary resources were in place to make the rollout is smooth? The Systems Theory has been used to explain how various components fit together in a working system so as to produce the desired results. The theory focuses on how parts of a system are organized and how they interact with each other to produce an orderly state through planning (Laszlo and Krippner, 1997). Public primary education under the FPE program has failed to attain the desired goals due to inadequate planning on the part of the government. The mission and goals of FPE are clearly stated in many policy documents - like the Kenyan Vision 2030 – but the two continue to suffer because teachers cannot play their proper role as the school system is stressed on many fronts.

UNESCO used a sample of 162 public primary schools in Kenya in 2005 to carry out a survey that showed that the average pupil-teacher ratio stood at 58:1 against the recommended average of 40:1. The survey revealed that FPE program had put a lot of pressure on teachers such that some in the rural areas were handling 100 pupils while some of their counterparts in the urban slums were teaching 120 pupils in a class (Republic of Kenya, 2005; Bold, et al, 2009) and hence there was very little teacher-pupil interaction and teachers opted to attend bright pupils at the expense of slow ones. Traditionally teachers in private primary schools handle smaller class sizes (UNESCO, 2005) which has enabled most of the schools to produce very good end of school exams to an extent that owners of the institutions are complaining that the ministry of education is discriminating their pupils when it comes to placement in form 1 class under the pretext that these pupils have been spoon fed with knowledge all along.

## 2.3 Effect of Class Size on Pupil Assessment

Pupil assessment can be defined as methods used by educators to measure the learning progress throughout various stages of schooling. The Ministry of Education (2004) defines assessment as the process of determining a persons' level of performance in a particular skill or subject. Kenyas' education system is dominated by examination-oriented teaching, where passing examinations is the only benchmark for performance as there is no internal system of monitoring learning achievements through various levels within the education cycle. In Kenya, examinations are generally acceptable as valid measures of achievement (Maiyo and Ashioya, 2009). Apart from examinations, there are other forms of assessment such as assignments; continuous assessment tests (CATs) and class debates and discussions.

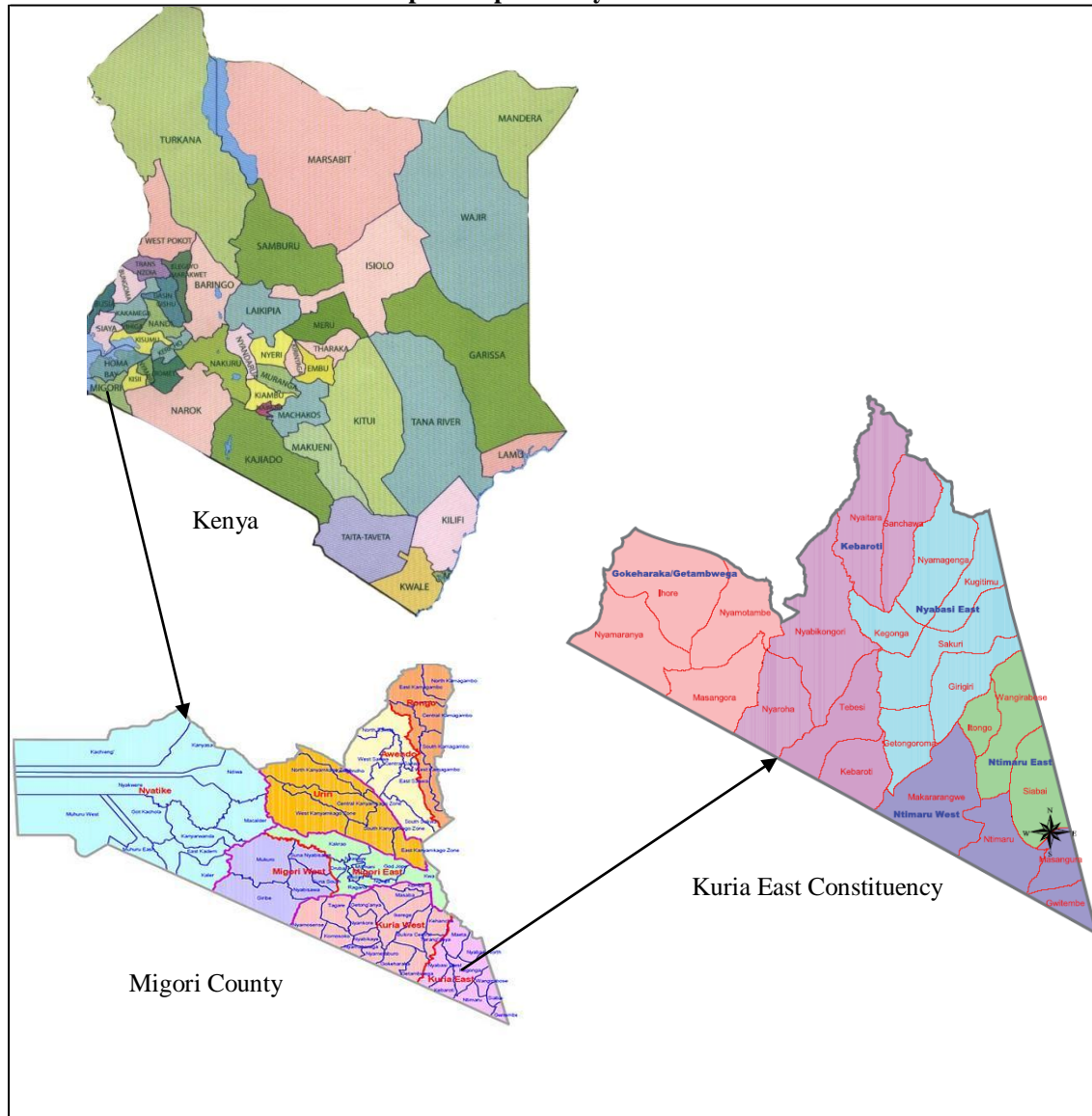
Since the introduction of FPE program, pupil assessment in public primary schools especially continuous assessment tests has stopped (Sang and Kipsoi, 2005). This possibly explains why these schools continue to perform dismally. Large classes have made it impossible for teachers to administer, grade pupil's work and provide feedback on performance (Sang and Kipsoi, 2005).

### III. Methodology

#### 3.1 Study Area

Kuria East Constituency in Migori County is composed of five Wards namely Ntimaru East, Ntimaru West, Nyabasi East, Nyabasi West and Gokeharaka/Getambwega. According to the 2009 National Population Census the constituency is home to 93,229 people occupying an area of 235 square kilometers.

**Map 1: Map of Study Area**



Compiled by Author (2012)

**Table 2 Number of Public Primary Schools in Each Ward**

Ward	No. of Public Primary Schools
Ntimaru East	7
Ntimaru West	13
Nyabasi East	14
Nyabasi West	20
Gokeharaka/Getambwega	14
<b>Total</b>	<b>68</b>

Source: County Education Offices, Migori County

### 3.2 Research Design

In order to give a more complete and comprehensive account of the enquiry, this study adopted a mixed method approach (Creswell, 2003). The research administered questionnaires containing closed ended questions to collect quantitative data that represented views of 68 head teachers and 637 teachers in all the 68 public primary schools. More numerical data was similarly obtained from the area education officers in Kuria East Constituency.

To begin with the research obtained the list of all public primary schools in the constituency from the county education offices and grouped them into five strata as per the five wards in the constituency. The research worked out a proportion to determine the number of schools to be sampled (based on the number of schools per ward) against the sample size in a given ward. Purposive sampling technique was employed to select the schools to participate for the research from amongst those that were identified through stratified sampling technique. The researcher gave priority to schools that had existed for longer period because the research was interested in data spanning from 1998 to 2008. All head teachers whose schools were selected to be part of the research were automatically selected to participate in the study. The research then used simple random sampling to identify the teacher respondents who were a representative of the entire population.

#### 3.2.1 Sampling Frame

The study targeted a third of the 68 public primary schools in the constituency, and settled for 25 schools. Secondly the research used the formula as explained by Miller and Brewer (2003)

$$n = \frac{N}{1 + N(\alpha)^2}$$

to determine the number of teachers to participate in the research, where  $\alpha$  is the level of significance or margin of error (9%),  $n$  is the sample size and  $N$  is the sample frame, at a 90% confidence level to obtain:

$$n = \frac{637}{1 + 637(0.09)^2} \quad n = 103$$

This figure was rounded to 100 so as to have 4 teachers in every school participate in the research. The 25 public primary schools in the sample size were proportionately divided according to the number of schools in a given ward. Ntitaru East had 7, Ntitaru West 13, Nyabasi East 14, Nyabasi West 20 and Getambwega had public schools. The number of schools to participate in the study from each ward was determined by dividing the number of schools in the ward with the total number of schools (68) in the constituency and multiplying the result with the expected sample size of the schools (25). The results are summarised in table 3 below.

**Table 3 Sampling Matrix**

Ward	No. of Public Primary Schools	Sample Size
Ntitaru East	7	3
Ntitaru West	13	5
Nyabasi East	14	5
Nyabasi West	20	7
Gokeharaka/Getambwega	14	5
<b>Total</b>	<b>68</b>	<b>25</b>

Source: Compiled by Author (2012)

However only 19 of the sampled schools contained complete data for the 1998 – 2008 study period. The study utilised two sets of questionnaires: one for the head teachers and the other for class teachers. One hundred (100) teacher questionnaires and 25 head teacher questionnaires were administered to selected respondents. The research sought from the head teachers such information like the composition of school staff, the number of streams in each class, enrollment trends, exam performance and teacher effectiveness during the study period. The teachers' questionnaire assessed such information like the respondents teaching experience in the area, the classes they handled, and what it meant to teach in the constituency. The questionnaire also dwelt on pupils' assessment, availability of resources for learning and other duties routinely carried out by teachers and how they impact on FPE in the constituency. The researcher used structured in-depth interview to collect information from the DEOs and other field education officers. Content analysis was used to analyse qualitative data using the Statistical Package for Social Science (SPSS).

**IV. Results**

Eighty eight out of 100 teacher respondents returned their questionnaires duly answered (table 4 below), which was considered as a good response rate.

**Table 4 Teacher Respondents per Ward**

Ward	Questionnaires Administered	Questionnaires Submitted back for Analysis
Ntimaru East	12	11
Ntimaru West	20	18
Nyabasi East	20	16
Nyabasi West	28	25
Gokeharaka/Getambwega	20	18
<b>Total</b>	<b>100</b>	<b>88</b>

Source: Field Study (2012)

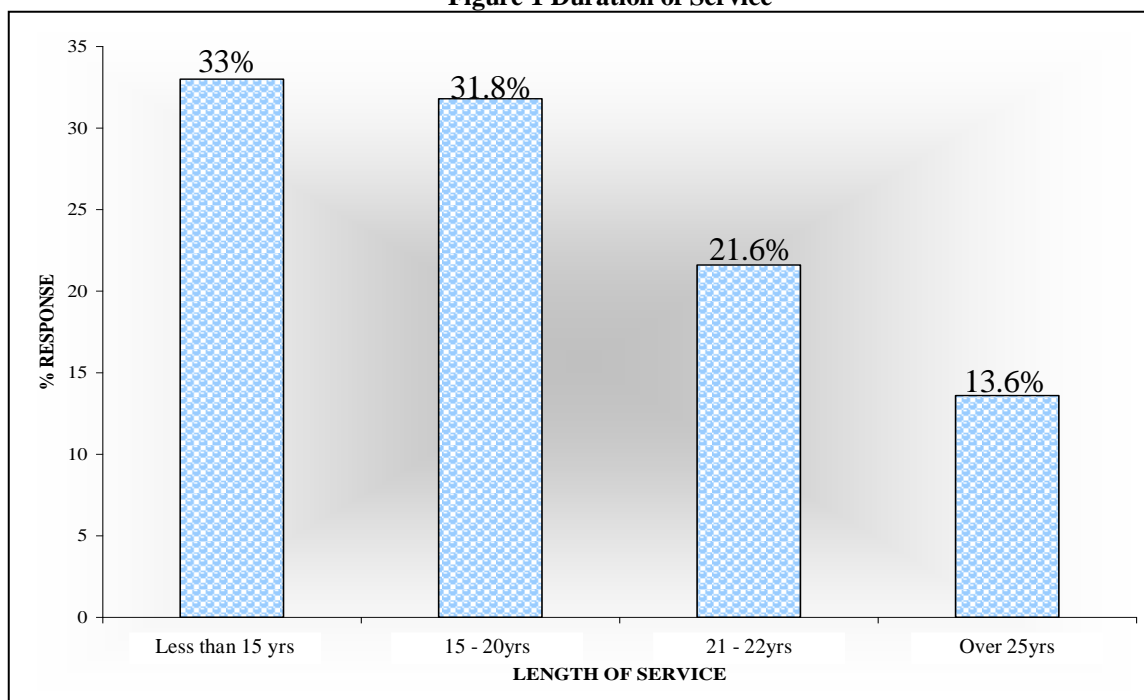
**4.1 Respondents’ service duration in Kuria East Constituency**

Figure 1 below indicates that 33% of the respondents had served in the teaching profession for less than 15 years compared to 31.8% who had served for 15 – 20 years, 21.6% for 21 – 25 years and 13.6% for more than 25 years. These findings show that majority teachers (71%) had been in the teaching profession for more than 13 years and were therefore in service throughout the duration of FPE. They therefore had enough experience to carry out their teaching duties as well as give useful insights about the challenges the FPE program has experienced.

Table 5 below is a summary of the duration the respondents had stayed in their current duty station. Some 48.9% respondents had served in their current schools for less than 5 years compared to 40.9% who had served for 5 – 10 years, 8% had served for 11 – 15 yrs, and 2.3% had served their current stations for over 15 years. The study posed the close ended question ‘Where were you teaching before the Implementation of FPE?’ to determine whether the teachers had been teaching in Kuria East Constituency in 2003 when FPE was introduced. The summary of the findings are illustrated in Fig. 2 below. The study established that 64.8% respondents had been teaching in Kuria East Constituency by the time FPE was introduced compared to 5.7% who were teaching elsewhere and 29.5% who had not commenced teaching.

The fact that most teacher respondents had been teaching in the constituency of study at the onset of FPE means that they had adequately interacted with the local people and they therefore understood the dynamics of the area including the progress that had been made in education which was relevant to this research topic.

**Figure 1 Duration of Service**



Source: Field Study (2012)

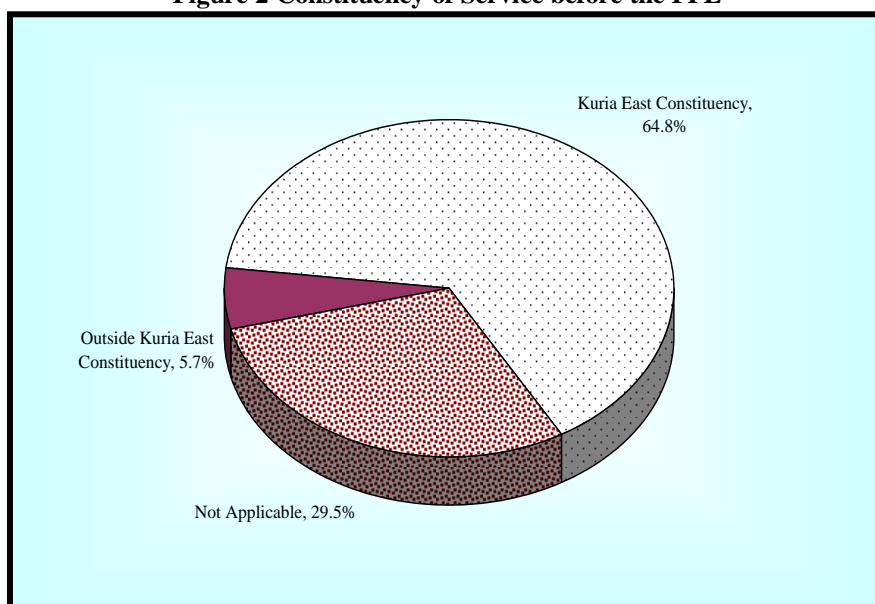
**Table 5 Duration of Service in Sampled Schools**

Length of Service	Frequency	Percentage (%)
yrs	43	48.9
5 - 10 yrs	36	40.9
11 - 15 yrs	7	8.0
Over 15 yrs	2	2.3
<b>Total</b>	<b>88</b>	<b>100</b>

Source: Field Study (2012)

As shown in table 6 below 36 (40.9%) teacher respondents taught in upper primary compared to 27 (30.7%) who taught in lower primary and 25 (28.4%) who taught in both upper and lower primary classes.

**Figure 2 Constituency of Service before the FPE**



Source: Field Study (2012)

**Table 6 Teachers Current Class of Teaching**

Class	Frequency	Percentage (%)
Lower Primary	27	30.7
Upper Primary	36	40.9
Both	25	28.4
<b>Total</b>	<b>88</b>	<b>100</b>

Source: Field Study (2012)

#### 4.2 Enrolment Trends in Public Primary Schools in Kuria East Constituency

Table 7 below gives a summary of the average enrolment in the sampled schools in every administrative ward. Between the year 1998 and 2002 the average increase of the number of pupils that enrolled in public primary schools rose from 73 to 78 compared to an average increase of 78 to 103 that enrolled between 2002 and 2003 and a further average increase of 103 to 116 between 2003 and 2008. The small average increase between 1998 and 2002 was evident because FPE had not been rolled out in the country. The small increase was quite consistent with the average population growth in the area. There was however a sharp increase in enrollment (an extra 25 pupils per class) between 2002 and 2003 after the introduction of FPE.

**Table 7 Enrolment in Kuria East District between 1998 – 2008**

Name of Ward	YEAR										
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Nyabasi West	316	312	319	328	312	438	441	449	447	438	454
Ntumaru West	372	369	367	401	404	530	570	580	605	613	619
Ntumaru East	181	191	188	192	189	256	261	239	252	261	260
Getambwega	265	304	280	288	289	364	404	413	410	430	444
Nyabasi East	250	245	256	277	287	369	415	423	432	416	425
<b>Total Enrolment</b>	<b>1,384</b>	<b>1,421</b>	<b>1,410</b>	<b>1,486</b>	<b>1,481</b>	<b>1,957</b>	<b>2,091</b>	<b>2,104</b>	<b>2,146</b>	<b>2,158</b>	<b>2,202</b>
<b>Average enrolment per school</b>	<b>73</b>	<b>75</b>	<b>74</b>	<b>78</b>	<b>78</b>	<b>103</b>	<b>110</b>	<b>111</b>	<b>113</b>	<b>114</b>	<b>116</b>



We used table 7 above to calculate the percentage increases in enrolment before and after the introduction of FPE, and a summary of the results are shown in table 8 below.

**Table 8 Percentage change in enrolment in Kuria East Constituency**

	1998 - 2001	2002 – 2003	2004 - 2008
	(%)	(%)	
Ntitaru East	6.1	35.5	-0.4
Nyabasi East	10.8	28.6	2.4
Nyabasi West	3.8	40.4	2.9
Ntitaru West	7.8	31.2	8.6
Getambwega	8.7	26.0	9.9
<b>Average</b>	<b>7</b>	<b>32</b>	<b>5</b>

Source: Field Study (2012)

Between the years 1998 – 2001 Nyabasi East Ward witnessed the highest percentage enrolment rate of 10.8% compared to Getambwega ward (8.7%), Ntitaru West (7.8%), and Ntitaru East (6.1%) while Nyabasi West had 3.8% enrolment increase (table 8). The average increase of pupils’ enrolment for the entire constituency during this period was 7%. Further, all primary schools in the five wards of Kuria East Constituency experienced a surge in pupil enrolment after the introduction of FPE in 2003. Nyabasi West had the highest enrolment increase of 40.4%, followed by Ntitaru East with 35.5%, Ntitaru West with 31.2%, Nyabasi East with 26.0% and Getambwega with 26.0%. On average the entire Kuria East Constituency experienced an enrollment increase of 32% (table 8).

Between the years 2004 – 2008 Getambwega experienced the highest percentage increase in enrolment at 9.9%, followed by Ntitaru West at 8.6%, Nyabasi West at 2.9% and Nyabasi East experienced the least percentage increase at 2.4%. Within this period, Ntitaru East was the only ward that experienced a 0.4% decline in enrolment because of its proximity to Narok and Kisii counties where residents experienced serious cattle rustling activities from across the borders. Some area residents had for these consequences migrated to the neighboring Ntitaru West Ward.

#### 4.3 Pupil - Teacher Ratio in Kuria East Constituency

Section 4.2 dwelt on the enrollment trends in public primary schools in Kuria East Constituency for the period 1998 – 2008. In this section we look at the implication of the enrollment on the pupil-teacher ratio (table 9).

**Table 9 Average Number of Pupils per Class**

Average	Frequency	Percentage (%)
Below 40	7	8
41 – 60	26	29.5
Over 60	55	62.5
<b>Total</b>	<b>88</b>	<b>100</b>

Source: Field Study (2012)

Data in table 9 indicates that 62.5% of the teachers in Kuria East Constituency handled classes with over 60 pupils compared to 29.5% who taught classes with between 41 – 60 pupils, while only 8% taught classes with less than 40 pupils. Hence only 8% of the sampled teachers enjoyed the national recommended pupil-teacher ratio of 40:1 or below. The results imply that most classes were overcrowded and there are possibilities that teachers were unable to carry out their teaching duties effectively. These findings concurred with the 2005 education sector report which stated that Free Primary Education Policy put pressure on teachers who handled large class sizes (UNESCO, 2005).

The pupil - teacher ratio during the study period is summarised in table 10 below. In 1998 the pupil - teacher ratio in Kuria East Constituency was 42:1 but increased to 43:1 in 1999 and again to 45:1 in 2000. This ratio remained the same in 2001 but it declined to 43:1 in 2002 but again rose sharply to 53:1 in 2003. The pupil-teacher ratio again increased in the years 2004, 2005 and 2006 reaching high figures of 55:1, 59:1, and 60:1 respectively. However the pupil-teacher ratio declined to 56:1 in 2007 but increased again to 59:1 in 2008. The results indicate that the FPE program brought about increased pupils’ enrollment in Kuria East Constituency but this increment was not followed by an increment in new recruitment of teachers in the area.

The head teacher respondents told this research that there were significant discrepancies in the pupil-teacher ratio within the schools in the constituency. Before the introduction of FPE the pupil -teacher ratio in the study area was between 33:1 on the favourable end and 51:1 on the unfavourable end. After the introduction of the FPE there was an evident increase in the pupil – teacher ratio with the highest at 59:1 and the lowest at 53:1 between 2003 – 2008.

Most teacher respondents reported that management of pupils in the classroom was easier before the FPE than after the introduction of FPE. The study found that overcrowded classrooms interfered with the

teachers' movement around the classroom making it difficult for them to monitor pupils' work. The teachers lamented that the government did not increase school facilities like books and desks to cater for the higher numbers. They also complained that they were more effective at teaching prior to the introduction of FPE as they no longer can meet the demands of the expanded classes no matter how extra hard they worked. All respondents felt that the government was not concerned with deploying more teachers in the region in order to make teaching more effective.

**Table 10 Pupil - Teacher ratio in Kuria East Constituency**

Year	No. of Pupils	No. of Teachers	Pupil Teacher Ratio
1998	6458	154	42:1
1999	6774	159	43:1
2000	7101	159	45:1
2001	7247	160	45:1
2002	7298	169	43:1
2003	8592	162	53:1
2004	9159	166	55:1
2005	9313	158	59:1
2006	10012	166	60:1
2007	9817	174	56:1
2008	10224	174	59:1

Source: Field Study (2012)

Before the close of the study we examined the situation for the year 2012 to see whether there were any significant changes from what we observed for the study period 1998 to 2008 and the results are summarised in table 11 below.

**Table 11 Schools Teacher – Pupil Ratio in 2012**

Pupil :Teacher Ratio	Number of Schools	Percentage (%)
31 :1 – 35:1	2	11
36:1 - 40:1	1	5
41:1 - 45:1	0	0
46:1 -50:1	2	11
51:1 -55:1	5	26
56:1 -60:1	3	16
61:1 -65:1	3	16
66 and higher	3	16
<b>Total</b>	<b>19</b>	<b>100</b>

Source: Field Study (2012)

The results show that 26% of the sampled schools had a pupil-teacher ratio of between 51:1 – 55:1 in the year 2012; 16% schools had pupil-teacher ratio of between 56:1 and 60:1; another 16% schools had a pupil-teacher ratio of 61:1 to 65:1; and a further 16% had a pupil-teacher ratio of 66:1 and higher. Only 16% of the sampled schools had a pupil-teacher ratio of 40:1 and below.

Gitau (2007) states that when a class is large the teacher tends to use lecture method to communicate to his learners thus dominating the situation and therefore reducing the teacher-learner interaction which is bad for teaching. The findings of this study are consistent the results of Mugo (2006) who established that the government policy to freeze employment of teachers except when replacing teachers who leave the service either by natural attrition or other reasons, has a negative effect on pupil-teacher ratio in many schools. This is the case in Kuria East Constituency where there is currently very high pupil-teacher ratio which has contributed to poor school examination results in the area.

By the close of the study there were 196 teachers for the sampled schools against a pupil population of 11,101, giving a pupil-teacher ratio of 57:1. Hence the government has the obligation to hire 82 more new teachers in order to achieve the recommended UN standard pupil-teacher ratio of 40:1.

### Summary

Efforts to ensure that Kenyan children access free basic education were not successful until 2003 when the NARC administration introduced the FPE program in fulfillment of one of its election pledges. The introduction of FPE however was marred with a lot of difficulties. While it received accolades for enabling school aged non-school going children access free primary school education on one hand, it on the other hand was criticised for introducing a lot of new challenges in the education system. The challenges that stood out included increased pupil-teacher ratio and overcrowded classrooms which greatly impacted on the pupils'

learning outcomes (UNESCO, 2005). These effects of FPE hampered classroom teaching and made it difficult for teachers to effectively carry out their mandate.

The purpose of this study was to assess the impact of the FPE program on teacher effectiveness in public primary schools in Kuria East Constituency. The study period was confined between 1998 and 2008. So as to make informed conclusions, the study focused on two major objectives, namely: pupil enrolment trends before and after the introduction of FPE and pupil – teacher ratio before and after the introduction of FPE.

The abolition of school fees encouraged parents to enroll their children in public primary schools. Many researchers have billed the FPE as a pro-poor policy because of how it has benefited poorer areas of the country as most of them have registered over 100% enrollment since 2003. Available data from the Republic of Kenya (2005) indicate that the national Gross Enrolment Rate (GER) in public primary schools in the country rose to 98.1% in 2003 and to 101.5% in 2004, and Kuria East Constituency managed this score. All teachers' respondents felt that the introduction of Free Primary Education influenced the type of methods they used for instruction. The teachers stated that they were forced to resort to the lecture method as the mode of instruction and hardly used pupil oriented methods because the class sizes were too large. Unlike before the introduction of FPE whereby teachers could personally mark assignments and offer guidance to individual pupils, free learning came with too much workload and most teachers got demoralized as a result.

The study found that overcrowded classrooms interfered with the teachers' movement around the classroom making it difficult for them to monitor pupils' work. The teachers felt that FPE was haphazardly introduced with little preparation going on towards its implementation. The teachers consider themselves central to the success of the FPE program and as such the government should have taken time to prepare them and provide more facilities to cater for the increased enrolment. The high pupil-teacher ratio in schools within Kuria East Constituency was exacerbated by understaffing as most of the schools in the constituency did not receive extra teachers meaning that they few teachers were extremely overworked. The enrolment of over age pupils contributed to class indiscipline, especially in class one, causing more headaches to the overworked teacher.

## V. Conclusions

There is no doubt that children learn through concrete rather than abstract experiences. Poor performance by the teachers directly affects the students' performance thereby negating the cardinal purpose of education. Increase in student enrolment means an increase in the workload and responsibility of teachers. When teachers are faced with such circumstances they resort to teacher-centered teaching method instead of pupil-centered teaching method thus compromising the quality of instruction.

In the case of the FPE in Kenya, the situation was more compounded by lack of involvement of stakeholders and lack of preparedness on the part of the government when the program was rolled out in 2003. The teacher was not mentally and physically prepared prior to the program implementation, and this did not change his/her attitude towards large class sizes, affected his/her productivity, and greatly contributed to his/her teaching effectiveness. If teachers had been prepared on what to expect in free primary learning they would have understood that other education stakeholders appreciate them on matters of educational development. In turn the teachers would have designed ways to be more effective in their teaching despite the increased workloads.

## VI. Recommendations

Based on the findings and conclusions of this study, the researcher made the following recommendations:

1. The government should set a minimum threshold of the pupil-teacher. The government should employ more teachers to meet the shortfall.
2. The increase of pupils in public primary schools means that parents should collaborate with teachers in ensuring that children complete their homework, monitor their performances as way of also reducing indiscipline in schools.
3. Teachers should be taken through in-service courses to train them on effective ways of teaching large and heterogeneous classes.

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