

Influence of School Feeding Programme on Learners' Retention Rates in Public Primary Schools in Loima Sub-County, Kenya

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Abstract

Original Research Article

The Kenya Vision 2030 overall goal is to provide a global competitive quality education, reduce illiteracy, improve transition rates from primary to secondary schools, and raise the quality and relevance of education. This dream can only be realized if learners from marginalized communities especially in Arid and Semi-Arid Lands accessed and got retained in schools. The current study investigated the influence of School Feeding Programme on learners' retention rates in public primary schools in Loima Sub-County, Turkana, Kenya. The study employed ex post facto research design and gathered both qualitative and quantitative data. The target population was 1012 drawn from 70 Public Primary Schools. As such, 70 head teachers, 280 teachers, 600 learners, 2 SCSFPOs and 54 BOM members were targeted. The sample size was 240 participants comprising 20 schools, 20 head teachers, 80 teachers, 120 learners, 2 SCSFPOs and 18 BOM members. Stratified sampling technique was used to select schools, purposive sampling to select head teachers and Board of Management members, census sampling to select Sub-County School Feeding Programme Officers, and simple random sampling to pick learners and teachers. Data for the study was collected using questionnaires, interview guide, document analysis guide and Focus Group Discussion guide. Data collected was analysed using descriptive, such as means and standard deviations, and inferential statistics. The null hypothesis was tested using multiple regression analysis. Results indicated that availability of SFP promoted learners' retention rates in schools. The study concluded that a regular SFP enhanced enrolment, increased class attendance. Public Boarding primary schools which served more than two meals in a day had higher learners' retention rates in comparison to public day schools which only served one meal per day. The study recommended that the government should promote day schools to the status of low-cost boarding schools and allocate FPE grants to supplement SFP to enhance learners' retention. It should also ensure timely supply of a regular SFP in schools in ASAL areas implement the HGSM model proposed by WFP to enhance learners' retention.

Keywords: School Feeding Programme, Learners, Retention Rates, Loima, Kenya.

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INTRODUCTION

Turkana is the second largest county in Kenya after Marsabit County. It is situated in the Rift Valley region in North Western Kenya. It is classified as an Arid and Semi-Arid Land, characterized by warm climate, high temperatures with a range of 35-40 degrees Celsius. It is traditionally inhabited by the Turkana nomadic pastoralists, one of the major Plains Nilotes of Kenya. Malnutrition rates in Turkana are prevalent attributed to the failure of the rains that led to low dietary diversity and rising insecurity levels. A survey conducted by Infotrak opinion polls in 2020 ranked Turkana County as the poorest county in Kenya,

with 78.5% of its population living below poverty line [1]. The primary school mean completion rate in the County is 30.94% and 22.94% for girls in 2007. According to the Kenya National Bureau of Statistics (KNBS) [2], 15% of Turkana County residents have a primary level of education while 85% have no formal education.

Loima Sub-County, being part of the greater Turkana County, is situated on the North Western part of Turkana County. It is a frontier Sub-County that borders Uganda to the West; it also shares borders with West Pokot County as well as the three Sub-Counties in Turkana. According to the Kenya National Bureau of

Statistics [3], Loima Sub-County has an area of 9113 square kilometres with a population of 107,795. The area being an arid region is typically constrained by the harsh and severe environmental conditions; recurrent drought, poor road network which had made hard for the people to access essential services, poverty, high illiteracy levels and poor community participation in development [3]. Increased famine in the area interrupts learners' education due to hunger leading to low retention rates in schools. If this scenario cannot be addressed, it is likely to exacerbate the attainment of the Sustainable Development Goals and Universal Primary Education [4].

Access to basic education is a fundamental Human Right as outlined in the 1948 Human Rights Charter. The pioneer *Sessional Paper No. 10* of 1965 reiterated the importance of education in eliminating poverty, disease and ignorance [5]. The subsequent *Sessional Paper No. 1* of 2005 further emphasized the government's commitment to achieving Universal Primary Education by 2005, Education for All by 2015 [6]. The Children's Act of 2001 stipulated the right of the child to adequate and safe food is enshrined in the Kenya Constitution [7]. Article 43 states that the right of every child to be free from hunger and to have adequate food of acceptable quality, including clean and safe water in adequate quantities and above all right to free and compulsory basic education for every child.

As an intervention strategy, Free Primary Education was introduced in 2003 in order to strengthen retention rates in Kenyan schools [8]. Nationally, learner's retention rates in primary schools increased exponentially. However, despite the progress, Arid and Semi-Arid Lands areas still experienced challenges as the sub-sector continued to decline in terms of access and retention. The underlying factors for the low retention rates in public primary schools were, however, not documented. The current study sought to determine the reason that accounted for the low learners' retention rates specifically by correlating School Feeding Programme and learners.

According to United Nations Educational, Scientific Cultural Organization (UNESCO) [9], retention rates advanced globally over the last two decades. Overall, primary school enrolment tripled in the last half of the 20th century from slightly 200 million to 670 million. In 1999, nearly 115 million children were out of school globally, 94% of this were in developing countries while 30% were from the Sub-Saharan Africa. The concept of SFP, therefore, gained ground in many countries of the world. It became highly desirable to assess its effectiveness as a policy intervention.

In Kenya, the School Feeding Program was started in 1966 by the National School Feeding Council (NSFC). As a result of this, the enrolment of learners

increased significantly by 70% in 1966. In 1979, school milk programme was introduced by the government and attracted more learners in schools, though it lasted only for a short time. The programme was too expensive to be sustained and later stalled under the Kenyan Structural Adjustment Programme [10].

World Food Programme's School Feeding Programme in Kenya was one of the largest and most long-standing since 1980. The initiative was launched in the most vulnerable arid and semi-arid districts and informal urban slums in the large cities of Mombasa and Nairobi [11]. Its objective was to improve attendance in these areas [10]. The World Food Programme in its five-year development plan (2003-2013) emphasized the need to hand over the program to national government after 28 years of assistance [11].

The Home-Grown Meals Programme policy began in July 2009 under the Ministry of Education (MOE) in the arid and semi-arid districts previously covered by WFP-assisted programme. The main aim was to improve educational indicators in terms of enrolment, attendance and retention and, delink from WFP assistance, thus creating a more sustainable and locally integrated programme [10]. A survey by World Food Programme [11] showed that as a result of introduction of school meals, the enrolment increased from 92% in 2007 and 93% in 2009.

Relationship between School Feeding Programme and Learners' Retention Rates

Proponents of the School Feeding Programme initiatives contended that the primary assumption of the Program was that education and learning depended on good nutrition. A number of empirical studies showed that there was a major link between nutrition and learning [12]. Empirical studies indicated that school feeding programmes played critical role in school participation.

In the United States (US), studies indicate that School Feeding Program was established in 1946, later adding a school breakfast program [13]. The main aim was improved educational attainment and the health of children. Niger was one of the countries with the lowest school enrolment rates in the world. However, according to World Food Programme [11], because of the introduction of School Feeding Programme, learners' enrolment increased by 30% within two years of the program implementation.

A study by Adekunle and Ogbogu [14], in Nigeria, found that SFP had resulted in increased learners' enrolment (78.4%), retention (44.8%), as well as regularity (58.6%), and punctuality (69%), in school attendance. It had also enhanced the pupil's performance in curricular and extra-curricular activities (55.2%). Lambers [15] studied the impact of school

feeding programme on attendance in primary schools in Burkina Faso. The findings showed that rural schools in the Sahel region in which gross enrolment was the lowest in the country (48.8%), had witnessed increased gross enrolment increased from 21.8% to 48.8% over the first period.

The WFP [11], in respect to Zambia, reported that after the introduction of SFP, the enrolment of children increased from 11.1% of the total enrolment in 2002 to 20.1% in 2004. In Tanzania, a study by Navuri [16] found that when schools were provided with SFP, the enrolment of primary school pupils in 2007 rose to 8.4 million from 6.6 million in 2003, while dropouts declined from 6% to 3 %.

Ndungu [17] assessed the status of SFP and its implications on learners' retention in primary schools in Kamukunji District, Nairobi. The study adopted descriptive survey design. The results of the study showed that SFP had a great impact on retention. Ndungu recommended that the government should meet the cost of SFP in schools.

Mkanyika [18] investigated the influence of School Feeding Programme in public primary schools in flooded prone area of Garsen Division, Tana Delta District, Kenya. The study adopted a descriptive survey research design, using questionnaire and content analysis to collect data. It was established that School Feeding Programme influenced enrolment, attendance and participation of learners in primary schools in Garsen Division. The study concluded that School Feeding Programmes influenced enrolment of learners, enhanced attendance and active participation of learners in class. It was recommended that the government should increase the coverage of areas under School Feeding Programme, especially in areas prone to floods with the view to improving the enrolment rates. Moreover, the government should also ensure there was a constant food supply to schools to encourage regular attendance.

Cheserem [19] investigated the influence of school feeding programme on learners' participation in public primary schools in Baringo North, Baringo County, Kenya. The study sought to determine the extent to which the school feeding programme influenced learners' school attendance, enrolment and retention. It also examined the role played by the school feeding programme on the Kenya Certificate of Primary Education (KCPE) performance of learners in public primary schools in Baringo North District. The findings revealed that school feeding programme influenced learners' KCPE performance and retention.

Wanjala [20], in a study in Turkana Central Division, examined the impact of school feeding program on attendance in Public Day Schools. Descriptive survey design was used. The target

population was school management committees, teachers and learners. Data was gathered through the use of questionnaires. The findings showed that learners' attendance was enhanced when food was available in schools and dropouts increased when food was inadequate in schools.

These studies conducted by various researchers failed to paint a comprehensive picture on the influence of School Feeding Program on learners' retention in ASAL regions. None had been done in public primary schools to investigate the influence of School Feeding Programme on learners' retention. This was knowledge gap to be filled by the current study.

Statement of the Problem

The rate of learners' retention in Public Primary Schools in Loima Sub-County had remained low for the last five consecutive years (2015-2019). Statistics available showed that the number of learners' transiting within primary grades then to secondary level was dismal. The community raised serious concerns on the rising cases of learners' absenteeism, dropouts as well as low transition rates. This problem made learners' more vulnerable to drug and substance abuse and teenage pregnancies resulting to gender parity in schools. This is a major problem that affects education attainment and retention.

The Kenya National Bureau of Statistics [2] shows that Loima Sub-County has the lowest share of its residents (1%) with a secondary level of education. Only 7% have primary level of education while 93% have no formal schooling. This scenario has been escalated by social factors such as poverty and regional inequalities in education. A survey conducted by Uwezo-Kenya [21], in all the 47 counties on the state of literacy levels in Kenya, ranked Loima Sub-County at position 47 out of 47 as having the highest illiteracy (70%) nationally and being the leading sub-county with fewer number of form four leavers in Kenya.

Various empirical studies have been conducted in Kenya on learners' retention. For instance, Muema and Mutegi [22] did a study on the impact of SFP on learners' retention in Primary Schools in Kenya. Macharia [23] explored the determinants of low access and retention in Primary Schools in Mathioya District. In addition, Abdullahi [24] did a study on the effect of SFP on access and retention among school pupils in nomadic families in Wajir District. Namunwa, Bomett and Kiprop [25] carried out an investigation in to the effect of the learning environment on dropout in primary schools in Katilu Division, Turkana County. Achieng [26] did a study on factors influencing retention of pupils in public primary schools in drought prone areas of Turkana Central Sub-County. While these studies were of benefit to the current study, they did not highlight the influence of SFP on learner's retention in Public Primary Schools in Loima Sub-

County. As such, there were limited studies in the study area, a knowledge gap that the research sought to fill.

MATERIALS AND METHODS

The research adopted an ex post facto research design to conduct this study. The target population for the study was 1012 participants comprising 70 head teachers, 280 teachers, 600 learners from standard 8, 2 Sub-County School Feeding Programme Officers and 60 members of the Board of Management. The target population was key to the study because of their role, in the school management and administration. The sample size for this study was 240 participants, consisting of 20 schools (5 boarding and 15-day schools), 20 head teachers (5 boarding and 15-day schools), 80 teachers (20 boarding and 60-day schools), 120 learners (30 boarding 90 day), 2 SCSFPO and 18 members of BOM (6 boarding schools and 12-day schools). The researcher employed Stratified sampling technique, also referred as 'proportional random sampling', to sample schools by grouping schools into strata based on some variables which were important for the study such as Mixed Gender Boarding, Girls Boarding or Mixed Day school's category. The researcher randomly selected and assigned subjects into treatment conditions and control groups in a random manner the final number of schools (5 boarding and 15 day) from the total number in the Sub-County (70) ensured a well-rounded sample.

All the head teachers of the sampled schools were automatically included in the study.

Teachers were chosen using systematic random sampling. This technique allowed the researchers to create samples without using random number generator. The researchers then chose every 5th individual or member of the population for the sample after a random start was determined. Learners were selected using simple random sampling technique. The researchers used a table of random numbers displayed hundreds of digits, then assigned unique numbers to all class 8 learners from each of the sampled schools for example 30 learners per class as segregated by gender (male and female) then used a random number generator to select the 6 learners in each school to participate in the study. The researchers selected members of the Board of Management to participate in the FGD using purposive sampling also referred as 'judgemental sampling', 'criterion based' or 'expert's choice sampling'. The researcher used personal judgement and handpicked typical subjects that were considered to be representative of the population who were experiencing problems being studied. The Sub-County School Feeding Programme Officers (SCSFPOs) were selected using census sampling because the population was small and there was no need for sampling to be involved in the inquiry. Table 1 shows the summary of the sample size.

Table 1: Summary of the Sample Size

Category	Target population	Sample size	Percentage
Head teachers	70	20	28.6
Teachers	280	80	28.6
Learners	600	120	20
CSOs	2	2	100
BOM	60	18	30
Totals	1012	240	207

Data was collected using questionnaires, document analysis, interview guides and focus group discussions. The analysis of data relied on both descriptive and inferential statistics. For the primary analysis, descriptive statistics (means, standard deviation, and frequencies) was calculated. The means were interpreted as follows: Strongly disagree in the point range of 1.00-1.80, Disagree 1.81- 2.60, Neutral 2.61-3.40, Agree 3.41-4.20, and strongly agree 4.21-5.00 [27]. Inferential statistics such as Multiple linear regression was used to test hypotheses, The researcher used the sample statistics to draw conclusions about a population from which the sample was drawn based on the relationships or differences between variables from the research findings. Both qualitative and quantitative

data were analysed by using Statistical Package for Social Sciences (SPSS) Version 21.

RESULTS AND DISCUSSION

The study sought to investigate the relationship between School Feeding Programme and learners' retention rates in public primary schools in Loima Sub-County. The participants were asked to indicate their views to statements given. A five-point Likert scale was used to score their responses as follows: 1=Strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree and 5=Strongly Agree. Table 2 summarises the research results.

Table 2: Relationship between School Feeding Programme and Learners' Retention

Statement		5	4	3	2	1	Mean(\bar{x})	Std. Dvn
The availability of SFP promoted learners' retention rates in school	f	16	20	8	48	108	4.24	1.31
	%	8	10	3.5	24	54.5		
SFP contributed to learners' regular attendance in school	f	94	55	2	38	10	3.94	1.30
	%	47.5	27.5	1	19	5		
The provision of SFP had led to improvement in learners' outcomes in schools	f	97	51	5	31	15	3.93	1.35
	%	48.5	25.5	2.5	15.5	7.5		
Availability of SFP had resulted to decreased learners' dropouts in schools	f	93	60	0	27	18	3.96	1.32
	%	46.5	30	0	13.5	9		
Adequate SFP had enhanced learners' transition rates in schools	f	30	16	6	41	107	2.10	1.50
	%	15	8	3	20.5	53.5		

Data presented in Table 2 indicate that majority (54.5%) of the participants strongly disagreed that the availability of SFP promoted learners' retention rates in schools (\bar{x} =4.24). The key findings of the study implied that most public day schools experienced food shortages due to lack of government commitment to fund feeding programs using FPE capitation.

The study established that 47.5% of the participants strongly agreed that SFP contributed to learners' regular attendance in schools (\bar{x} =3.94). It was thus concluded that since most public day schools in the Sub County served children from nomadic community, when food is adequate learners regularly accessed schools and retention rates improved.

Many participants (48.5%) strongly agreed that the provision of SFP has led to improvement in learners' learning outcomes in schools (\bar{x} =3.93). The key findings of the study showed that with availability of adequate food, learners recorded remarkable achievements in KCPE examination, and active participation in co-curricular activities.

On the statement that availability of SFP food had resulted to decreased learners' dropouts in schools, majority 46.5% of the participants strongly agreed that the availability of SFP had resulted in decreased learners' dropouts in schools (\bar{x} =3.96). The study therefore indicated that when food was regular learners' dropouts decreased, as Galal [28] affirmed that children who receive school meals regularly are generally healthier, more receptive and easier to teach.

Finally, 53.5% of the participants strongly disagreed that availability of SFP food had resulted in decreased learners' dropouts in schools (\bar{x} =2.10).

The interview with SCSFPOs also indicated that there was a relationship between SFPs and learners' transition rates. They indicated that school meals positively influenced learning. SFP attracted more learners to schools. On the contrary, lack of adequate nutrition particularly in rural day schools pushed

learners out of schools. As one head teacher explained: *Since the termination of SFP by WFP in 2011, we have witnessed increased dropout of learners from this school.* This statement was supported by a response from another head teacher who said: *Most of the learners in my school dropped out of school after termination of the SFP.* Further, another school head teacher had this to say: *Currently our records showed decline in enrolments of learners in the schools which entirely depended on the SFPs.*

Further, a report from Loima Sub-County Education (SCD, 2019) recorded that learners' enrolment specifically in public day schools in the Sub-County was on the decline. Similarly, Lambers [15] carried a study on the impact of school feeding programme on attendance in primary schools in Burkina Faso. The findings showed that in rural schools in the Sahel region in which gross enrolment was the lowest in the country (48.8%), the gross enrolment increased from 21.8% to 48.8% over the first period. The FGD correlation between SFP and learners' retention rates were in agreement with other participants. The key finding was that learners' retention rates were low in public day schools due to instability of the SFP overtime. Therefore, the study concluded learners retention rates can be realized if hunger is eventually controlled.

To further explore the relationship between school feeding programme and learners' retention, the study proposed and tested the following hypothesis (HO): *School feeding programme has no significant influence on learner's retention in public primary schools in Loima Sub-County.* From the ANOVA statistics (Table 3), it is evident that the relationship between School Feeding programme and learners' retention in public primary schools in Loima Sub-County was significant ($F=128.318$, $P=0.000$). Since the p-value was less than 0.05, it was deduced that School Feeding Programme significantly influenced learners' retention in public primary schools in Loima Sub-County. Subsequently, the null hypothesis was rejected.

Table 3: Regression Results for SFP and Learners' Academic Retention

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	496383.117	5	99276.623	128.318	0.000 ^a
	Residual	147772.101	191	773.676		
	Total	644155.218	196			
a. Predictors: (Constant), School Feeding programme						
b. Dependent Variable: learner's retention						

The study results indicated that the availability of SFP majorly promoted learners' retention rates in schools (\bar{x} =4.24). The SFP contributed to learners' regular attendance in schools (\bar{x} =3.94). Finally, provision of SFP has led to improvement in learners' learning outcomes in schools (\bar{x} =3.96). The study concluded that School Feeding Programme significantly influenced learners' retention in Public Primary Schools in Loima Sub-County.

CONCLUSION AND RECOMMENDATIONS

The study compared the relationship between SFP and learners' retention. Based on the key findings, the study concludes that there was a causal link between intervention and educational outcomes as evident fluctuating enrolment and class attendance, academic performance and transition rates. Based on the key findings, the study concluded that the rates of learners' retention in Public LCBS which benefitted from both FPE capitation as well SFP ratio was slightly high. Therefore, there was a causal link between intervention and educational outcomes as evident reduced dropout while public day primary schools which only depended on SFP ratio had low learners' retention rates, reduced learning outcomes, in the sub county schools for the last five years (2015-2019). Further, the study concluded, that an availability of SFP promoted learners' retention rates in schools and had enhanced learners' transition rates in schools. The government should ensure that the SFP supplied to schools is regular, adequate and timely delivered to schools with the aim of promoting learners' attendance, participation and retention in schools. Moreover, the government through the Ministry of Education and other partners should empower members of the school BOM and SFP committee by strengthening their oversight roles in SFP implementation, decision making and best management practices.

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