INFLUENCE OF SCHOOL FEEDING PROGRAM ON ENROLMENT RATE IN PUBLIC PRESCHOOLS IN LANGATA SUB-COUNTY, NAIROBI COUNTY, KENYA

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE MASTER DEGREE IN EARLY CHILDHOOD EDUCATION IN THE DEPARTMENT OF EDUCATIONAL, COMMUNICATION AND TECHNOLOGY OF THE UNIVERSITY OF NAIROBI

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DECLARATION

This research project is my original work and has not been presented to any institution for any academic award.

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This research project has been submitted for examination with my approval as the university supervisor.

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DEDICATION

I dedicate this to my husband Nicholas Oluoch and my children Nancy, Vera, Diana, Brian, Esther, Eva, Sharon and Michelle for their moral support and their tireless words of encouragement which guided me throughout the research process.

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I would like to give glory and honor to God who has given me strength, courage, health and resources to successfully go through this challenging task. I owe a few people a special debt of gratitude. To my supervisor, Dr. Evanson Muriithi, for the support, guidance and patience he has accorded throughout. I acknowledge my family especially my husband Nicholas Oluoch and my children Nancy, Vera, Diana, Brian, Esther, Eva, Sharon and Michelle for their moral support. I also acknowledge my colleagues especially Jane Mwaura my Head teacher for their words of encouragement and moral support, and all those who made this project a success.

ABSTRACT

The study focused in examining the influence of school feeding program on the enrolment rate in public preschools in Langata Sub-County. The specific objectives of the study were; to examine the effect of prevalence level of school feeding programs on enrolment rate in public preschool, to examine the influence of take home rations on the enrolment rate in public preschool, to determine the influence of onsite meals on the enrolment rate in public preschool and; to examine the influence of daily recommended allowances on the enrolment rate in public preschool in Langata Sub-County. The study used descriptive survey research design approach to acquire information on the current state of an object of study. The population for the research was the head teacher and two public preschool teachers from each of the 14 public pre-schools in Langata Sub-County. Due to the optimal target population the study adopted a census and random sampling method to select an optimal sample size. The questionnaire used in data collection was semi-structured. Quantitative and qualitative data was collected during the study. The acquired data was analyzed using descriptive statistics which included the mean, frequencies and percentage. This was done using Microsoft Excel, Statistical Package for Social Sciences (SPSS 23.0). The study further undertook correlation tests to measure the magnitude of association between the research variables. Qualitative data was analyzed using content analysis to draw conclusions. The analyzed data was presented using charts and tables. The findings of the study were that in majority of the institutions the school feeding programme has been implemented with assistance from the government and other stakeholders in the donor community. The study concluded that different aspects of the programs such as the take home rations have fostered the enrollment rate among students. Similarly the adoption of recommended daily allowances has been associated with enrolment rate among students as it enhances the mental growth and acuity among children. The study further concludes that onsite meal in schools is a key factor enhancing enrolment rate within schools as children are sure of availability of meals in school. Further availability of onsite meals has been associated positively with enrolment rates within schools. There is a general increase in the enrolment rates within the public pre-schools where school feeding programmes are affected. This has translated in an upsurge of preschool to accommodate the growing population number.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND ACRONYMS

ACARA:	Australian Curriculum Assessment and Reporting Authority
FFE:	Food for Education
SFP:	School Feeding Program
SPSS:	Statistical Package for Social Sciences
UNESCO:	United Nations Educational, Scientific and Cultural Organization
UNHTF:	United Nations Hunger Task and Force
WFP:	World Food Programme

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The United Nations is committed to address the challenges resulting from advancing globalization in the formulation of the Sustainable Development Goals. The Sustainable Development Goals (SDGs) (or Global Goals for Sustainable Development) are a collection of 17 global goals set by the United Nations in 2015. The SDGs cover social and economic development issues including poverty, hunger, health, education, global warming, gender equality, water, sanitation, energy, urbanization, environment and social justice. The goals pay more attention to eradication of extreme hunger and poverty (United Nations Organization), 2005a).

The recommendation of The United Nations Hunger Task Force on methods to achieve the first the education goals (UNHTF, 2004) is the implementation of school feeding programs with locally produced foods rather than imported food (aid). The UNHTF considers school feeding programs to be a good combination of education and agriculture. Their point of view is that SFPs could increase school attendance, especially of girls and resulting to demand of locally produced food stuffs. It further recommends comprehensive community-and school-based feeding programs that include not only school feeding, but also systematic de-worming, micronutrient supplementation, take-home rations, safe cooking facilities, clean drinking water and improved sanitation in addition to, education on HIV/AIDS, health, nutrition and hygiene. All these gradients aims at improving quality of education systems schools, keeping children healthy and engaging the community (UNO, 2005b).

The indicator for improvement as formulated by New Partnership for African Development (NEPAD) is based on the provision of balanced basic school lunches in terms of calorie and micronutrient content to 1,000,000 children in poor and vulnerable areas throughout the NEPAD member states (NEPAD, 2005). The Global estimation suggests that from 2000 to 2002, over 852 million people across the world were undernourished. Many of these were children in developing countries (World Food Program (WFP), 2006). In many poor households, hunger has been a barrier to school participation. Children suffering from hunger are not only unable to enroll in school at the right age but also attend properly even if enrolled. Additionally, such children are likely to quit school because they have to address their immediate subsistence needs before getting ready for schooling. Hence, low enrollment, class attendance, and high drop-outs are recurring challenges in child education amongst poor households especially in areas of high food insecurity. As a result, the educational attainment level has also been low in many developing countries although both private and social returns to education are recognized to be high (Adelman, Gilligan and Lehrer, 2008). However, there is no doubt that other manifestation of poverty (apart from hunger) also affects school participation in poor households.

In the recent past, many countries have initiated the school feeding programs. For instance, 72 countries, covering 16.6 million school children had school feeding program under World Food Program in the year 2004, (WFP, 2005). The feeding program aims at achieiving the two millennium goals of poverty and hunger eradication and bridging of gender disparity gap. According to Hutchinson et al. (2006) school feeding in developing countries aims to increase school attendance, reducing absenteeism due to illness and

decreasing drop-out. In many countries, school feeding programs is one of the key incentives to encourage children, especially girls, most poor and vulnerable children to attend school.

School feeding program also serves as incentives for poor households to send their children to school. The school attendance rates are lowest in poor households; therefore providing school meals to children in the qualifying families can be corresponds to adding an extra 10% to average household incomes. In this way, school feeding program serve as social safety nets for poor households (WFP, 2006). Nonetheless, there are concerns in school feeding programs. For instance, poor families may be reduced home diet for their children benefiting from the feeding program. This is termed 'substitution'. School feeding survey in Malawi showed that 77% of children get less food at home after school meals as supported by 82% of caregivers. Other household members particularly children benefits from extra food (Mutangadura et. al, 2003).

Often, the school feeding programs have strong gender dimension in targeting and benefiting girl child education, the poor and the most vulnerable children. The relative scale of benefit in different school feeding modalities and notable lack of engagement of educators on research on these issues makes it less understood (Levinger et.al, 2002). This is therefore an area that calls for the attention of researchers to investigate the influence of these programs in specific contexts to give insight on whether they are achieving the intended objectives in education. From this problem, the study sought to investigate the influence of feeding program on enrolment in Early Childhood Education (ECE) in Lang'ata Sub-County, Nairobi County.

1.2 Statement of the Problem

The Free Primary Education Policy of 2003 brought major milestones in the education sector. Enrolment rates skyrocketed and most new entrants into the system were children from vulnerable backgrounds. This great step by the government however came with its challenges. Soon after kicking off, drop-out cases started being reported. Studies by the Ministry of Education (2003) established that children could not be sustained in school due to the hunger that had hit most parts of the country. The government then resolved to re-introduce the school feeding program.

The program served its purpose right. However, the numbers of children to be fed was soaring at an alarming rate. The World Food Program chipped in its resources to maintain the program. Corruption and misappropriation of funds brought to a halt a program that held the future of many Kenyans on the balance. The government, unable to sustain the program, identified some areas as more affected than others thus most urban areas were alienated by the new turn of events. More so locally the teacher quality within public schools has been dwindling especially in early childhood education after the latter was devolved to county governments. There has been increasing agitation in preschool teachers which may impede the enrolment rates within public schools. Today things have not changed and even in some parts the situation is worse. Some schools adopt local arrangements whereby parents contribute rice and other ingredients for their children to be fed uniformly from school. However, not all schools have this kind of arrangement and therefore most schools in Langata Sub-County are on the receiving their fair share of the school feeding program. This study investigates the relationship between school feeding programs and the enrolment rate in public preschools in Langata Sub-County.

1.3 Purpose of the Study

The study focused in examining the influence of school feeding program on the enrolment in public preschool in Langata Sub-County. The findings from this study were to help to address policy changes within the Ministry of Education and other key stakeholders towards enhancing the public school feeding program initiative. Further the findings would help to address if any the shortcomings of SFP within Langata Sub-County.

1.4 Research Objectives

i. To examine the effect of prevalence level of school feeding programs on enrolment rate in public preschool in Langata Sub-County.
ii. To examine the influence of take home rations on the enrolment rate in public preschool in Langata Sub-County.
iii. To determine the influence of onsite meals on the enrolment rate in public preschool in Langata Sub-County.
iv. To examine the influence of daily recommended allowances on the enrolment rate in public preschool in Langata Sub-County.

1.5 Research Questions

i. What is the effect of prevalence level of school feeding programs on enrolment rate in public preschool in Langata Sub-County?
ii. What is the influence of take home rations on the enrolment rate in public preschool in Langata Sub-County?
iii. What is the influence of onsite meals on the enrolment rate in public preschool in Langata Sub-County?

iv. What is the influence of daily recommended allowances on the enrolment rate in public preschool in Langata Sub-County?

1.6 Significance of the Study

The findings from this study will provide useful information of great value to the education policy makers. The policy makers will gain insight as to whether public school feeding programs are necessary in the enhancement of enrolment rates in public preschool hence decide on how this can be incorporated in the policy framework.

The research may also assist the donors and organizations that may be interested in sponsoring public preschool in different areas, particularly the vulnerable areas through feeding programs, on whether it would be viable to pursue that avenue in the sponsorship.

To scholars and researchers, the study will add knowledge on the impacts of public school feeding programs. Therefore, they may use the research findings in conducting further research into the area.

1.7 Limitations of the Study

Some of the collected data was subject to the respondents' attitudes which the researcher has no control. Some respondents may also hesitated to give data or give data that may not be completely accurate. Since the study was carried out in few sampled public schools, generalization of the findings may be limited. As such, findings may only apply to the institutions studied.

1.8 Delimitations of the Study

The study investigated the influence of feeding program on enrolment in public preschools in Langata Sub-County in Nairobi County. Public preschool in the areas was

covered in the study. The influence on attendance rates, drop-out rates, gender disparities in enrolment and the gross enrolment rate was investigated.

1.9 Assumptions of the Study

The assumptions made during the study are the following:

1. Access to education is affected by socio-cultural, physical and economic factors.
2. Head teachers and public preschool teachers are knowledgeable about feeding programs.

1.10 Definition of Operational Terms

Absenteeism: Is a situation where pupils fail to attend school regularly.

Drop-out rate: This refers to the proportion of children who have not graduated and have not transferred to another school system by the end of academic year.

Enrolment Rates: The number of pupils who enroll in a preschool per year.

Gender disparities in enrolment: It's the total number of children enrolled in a school at a given time.

Influence: This refers to the capacity of one aspect to have an effect on another.

Retention: Refers to all given opportunity for all children enrolled in schools to be in school until completion of the structured system.

School Feeding Programme (S.F.P): Refers to any programme of providing meals to the pupils that is organized by the schools with government and donor assistance.

School feeding: This refers to the quality, quantity, timing and frequency of the meals offered in the feeding program of Early Childhood Education institutions.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviewed the literature in the frame of theories, concepts and the empirical literature. The empirical review was guided by the research variables. Further the chapter presented the theoretical and conceptual framework of the study.

2.2 Theoretical Framework

This study will be guided by two theories, namely the School Feeding Program Theory by Gelli (2004) and the Classical Liberal Theory of Equal Opportunity by John Dewey in 1916.

2.2.1 School Feeding Program Theory

The theory suggests that the design of an effective school feeding intervention largely depends on rigorous problem analysis of the educational and context in a particular country (Gelli (2010). The analysis and assessment is done in consideration of student's needs, gaps, main education barriers and priorities (as included for instance in education sector plans). The government in collaboration with other stakeholders plays critical role in understanding the nature and the magnitude of the problems addressed by feeding programme in schools. The indicators to the demand of SFP in a country include health, nutrition and other relevant vulnerability, food security and data on education enrolment (Gelli, 2004).

SFP theory acknowledges that in practice, children participate in schooling due a trade-off between the costs and benefits that determine the schooling of a child or not. The direct costs are school fees while the indirect cost includes foregoing the benefits of any child labour and routine house cores (Gelli, 2010). Girls, who are kept at home to look

after siblings, help with home cores or simply for cultural reasons may demand higher opportunity costs for schooling. Children may stop concentrating in classroom activities because they are either too hungry or ill. The feeding programme and other school level interventions directly benefits directly children who are enrolled in assisted schools. Therefore, the school feeding program is part of social protection framework that follows a child from birth through to full educational development (Martinez, 2010).

2.2.2 Classical Liberal Theory of Equal Opportunity

The theory was advanced by John Dewey in 1916 that expressed the view that there should be equal opportunities in Education for All. The basic assumption of this theory is that every child is born with innate talents and capabilities and that education systems should be designed with a view of removing barriers of any nature that hinder children from poor economic backgrounds from utilizing their talents in gaining social promotion (Sherman & Wood, 1982). The theory demands that opportunities be availed for individuals to go to schools and that access to schools be based on merit and not social economic backgrounds. The theory is applicable to the study because SFPs are geared towards meeting nutritional needs of children from poor backgrounds thereby increasing access for education and creating an enabling environment for learning.

2.3 Conceptual framework

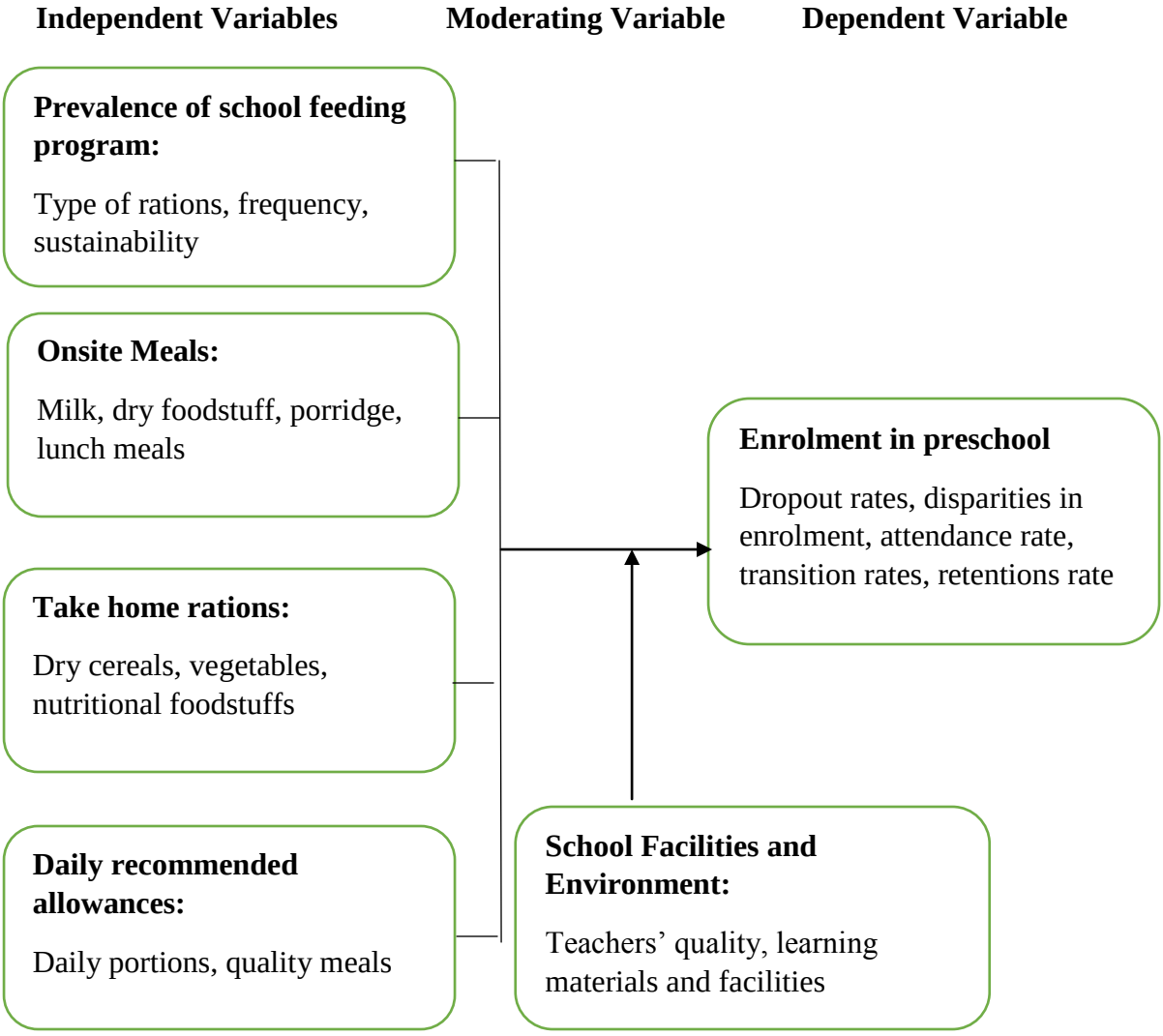

Figure 2.1: Conceptual Framework

From the above conceptual framework, an effective school feeding program is perceived to provide take home rations and on-site meals. These meals are at the same time supposed to have the recommended daily allowance that is calories, proteins and micronutrients. An increase in the prevalence of school feeding program would lead to an increase in enrolment of pre-school children, an increase of onsite meals would lead to increased enrolment in the schools. Likewise, an increase in Take Home Rations and Daily Recommended Allowances would lead to an increase of enrolment of preschool

children in schools in Langata Sub County. The conceptual framework proposed that there is a link between the dependent and the predictor variables in the pre-school enrolment in Langata Sub-County.

2.4 Concept of School Feeding Program

There are conflicting accounts on the origin and history of feeding program in schools. In his account, Tomilson (2007) recounts the emergence of SFP in the 1930's in the United Kingdom (UK) and the United States of America (USA) in improving the growth of children. In another account, SFP's emerged in the early 1700's and 1800's, in about four hundred and sixty-four (464) areas of Western Europe. Some states in the USA were serving school meals from the mid 1800's. However, The Netherlands in the year 1900 was the first country to incorporate school meals into a national legislation. By the 1930's, UK and USA also instituted the SFP as a part of national programs (Kearney, 2008).

Additional account suggest that school feeding initiatives originated as European donor project from 1700's and has been in existence. However, (World Food Program, 2008) indicates that feeding program was initiated by United States in Australia to combat severe mal-nutrition of children in the 1940s after the Second World War. Since then, school feeding programs have become a key part of food assistance and relief emergency and development programs

In Kenya, the national school feeding program was founded in 1967 guided by the philosophy 'A hungry child cannot learn'. It was mainly using locally produced foods from the National Cereals and Produce Board. However, this program alone could not meet the demands for feeding programs in the country. Thus, the government encouraged

development partners to join in and assist in this venture. The WFP is among the various development partners who have been very supportive in this area (Republic of Kenya, 2009).

There has been continuous expansion and refinement of School feeding programme in Kenya especially in the past decade. Since the introduction of free compulsory primary education for all Kenyan children in 2003, the WFP-assisted feeding program has developed alongside national policies of increased student health, attendance and performance (MoE, 2003). From its inception, it has targeted food inequality in the most vulnerable areas of Kenya, including school districts in the ASAL and the informal urban slums of large cities such as Nairobi and Mombasa (Espejo, 2009).

The two main ways of distributing food through school feeding programs (SFP) are on-site meals and take-home rations. On-site meals (OSM) entail provision of meals or snacks to school children on the site. The food can either be pre-packaged or cooked on site. Take-Home Rations (THR) are provided to school children for consumption at home. However, children benefit from THR method by attending on a specified minimum number of days (Mungai, 2004).

To address historical absenteeism in primary schools in Kenya, the impoverished and traditional communities, free meals have been used as an incentive to attract school-aged children to class. Within rural communities in which food is scarce, this daily meal provision relieves much of the burden of child-rearing. The program benefits the poor families who are unable to provide the minimum recommended daily allowances (RDA) of calories, protein and essential micronutrients to their children. These poor living conditions may irreversibly stunt the mental and physical development of young children,

resulting in wasted potentials and lifelong difficulties (Galal, 2000). The nutritional importance of the school meal (usually around 700kcal) is immense and represents more than half of the consumed RDA values for 40 percent of the participating students (Finan, 2010).

2.5 Empirical Review

Hunger is the major cause of impairment on enrolment and attendance among school pupils in the third world countries as explained by Buhl (2007).In finding solution, many countries have initiated school feeding programs as key incentive to encourage children from poorest and most vulnerable families to attend school. Through registration process during enrolment, the schools are able to establish the number of students to receive formal education in certain state.

The feeding program positively impacts education by attaining increased enrollment and attendance, reduced absenteeism due to illness and decreasing drop-out. For instance, the initiation of the programme led to the recording of 313% increase in students' enrolment in Cameroon (WFP, 2004). The World Bank (2012) also discusses that the significant impact of the program induced in the world especially, in Liberia and Togo. There was massive enrolment in Liberia and tremendous expansion of schools in Togo.

Wambua (2008) conducted a study in Mwala division, Machakos County in Kenya and found that school feeding program improves performance of pupils. However, a study conducted by Obonyo (2009) in Busia County contradicted the belief and expectations by concluding that school meals do not affect pupils' academic performance. The above studies focused on performance and did not consider enrolment rates hence the current study sought to fill the above research gap.

According to Munyiri (2010) parents support via constructing the kitchen, paying the cooks, offering facilities like, spoons, plates, and sufurias, offering materials like firewood, they take part in kitchen cleaning activities and volunteering to serve the children. Through the feedback the researcher gathered that the parents encourage their pre-school children to eat at school. Also it was of importance to note that the parents discussed the nutritional value of SFP with the school management occasionally. In regard to the contributions they make towards the programme, the parents indicated they are charged once per term and that the amount is enough compared to the burden relieved from them; they only cater for dinner after school.

2.5.1 Prevalence of School Feeding Programs

The implementation of SFP requires establishment of policy framework focusing the most critical aspects of SFP as stated by UNESCO (2004). These aspects in consideration are cost and financial issues, ration composition and delivery of meals. The implementation of the programme, monitoring and evaluation and integrated feeding provides for the nutrition and health needs of the children.

Improvement in educational outcomes and equaity among children is facilitated by the increased access to the pre-primary school by the children of the right age. The SFP should be depicted as part of a continuum and one of the interventions to support nutrirtion in school-aged children and does not target poor nutrition in pregnancy, infancy and early childhood, among other important cognitive abilities (Jukes, Drake and Bundy, 2008). Pre-primary schools feeding can be seen as preventive for children aged 3 to 5 years with the potential of bridging the gap between infancy and primary school age – 6 to 11 years – in countries with preschools education system such as UK,(Ahmed, 2004).

In Uganda, Food Programme was introduced in schools in 1993 and prior to the introduction, enrolment was 17.649 percent and it increased by 70 percent to 30.668 percent after the food programme was introduced. In Kenya, approximately 3.3 million people including school children are currently starving, and this has qualified as a national disaster (Bosire, 2004).

Since 1980s, the feeding program has been implemented in Kenya even though the degree of success varies. Primarily, SFPs was to entice the enrollment and retention of rural children hence playing integral part in realizing the achievement universal primary education as outlined in (UNESCO, 2005) in Kenya. However, many pupils from poor background are not able to enjoy the fruits of such feeding programs and even if they do, its unsustainable due to the challenges such as poverty, managerial issues, food, storage and poor climatic conditions, (Wanjohi, 2010).

2.5.2 Feeding programs and Enrolment

School Feeding Program has been found to effectively increase class attendance since the meals are served to the students only on school attendance (Dheressa, 2011). The opportunity cost of allowing a child to attend school varies across school days and seasons and this cost could even be higher than the expected benefit. For instance, in places where child labor forms the integral part of agricultural work during a particular day/season of a year, class attendance could be low. In such cases, school meals may or may not encourage attendance depending on how the beneficiaries value them. Thus, the benefit comparison between school feeding programs and the cost or expected benefit of schooling also determines attendance (Adelman, et al., 2009).

Studies show that the programs that reduce the schooling cost can be effective in improving participation rates in developing countries (Behrman, et al., 2001). According to Del Rosso (1999), food provision in schools lures children to school on a regular basis. Rural schools with SFP records higher attendance rates and lower initial drop-out rates than schools with no SFP, (Espejo, 2009). The immediate financial and nutritional benefits provided by schooling attract parents of low income families in schooling their children in that particular schools while saving 40 to 50% of their annual income, (Finan, 2010).

According to Afoakwa (2012) there was acute increase in pupils' attendance in Ghana due to the introduction of school feeding program by 40% country wide between 2005 and 2008. School breakfast impacted pupils' attendance, achievement and nutrition in New Zealand as explained by Mhurhu, et al (2010). From their findings, breakfast consumption supports childs' attendance and mental development their early stages. They further concluded that there is significant correlation between breakfast consumption, attendance, performance and nutrition benefits in all selected schools, (Mhurhu et al., 2010).

2.5.3 Take Home Rations and Enrolment

In a study on 32 Sub-Sahara African countries, it was shown that providing food in school under the Food for Education (FFE) scheme contributed to increased enrolment in schools by 28% for girls and 22% for boys within one year (Gelli, et al., 2007). The enrollment pattern showed varies after one year depending on the type of FFE program; that is whether the provision of food in school was combined with take home rations or

was served alone. Girls enrolment increased by 30% in the subsequent year in school that provides both onsite and take home meals, (Gelli, et al., 2007).

Also, the United Nations reported that providing children with take-home rations after onsite meals increase enrollment in 32 countries and particularly beneficial to the girl child in primary school (WFP, 2009). Parkistan tried to solve enrolment challenges amongst girls in 1994 by providing snacks of rice to their families. Parents were encouraged to send their children to school especially girls and this led to increase of enrolment of girls (WFP, 2000). In India, Afridi (2011) found that a national meal program led to increase in attendance among girls (but not boys).

The school feeding programs serves as a motivation factor for enrolment especially in the developing countries such as Kenya. The onsite meals and take-home rations attracts pupils to attend school (WFP, 2014). School feeding programs that offers meals regularly to the pupil's is attractive and provides social protection options by providing dual development issues simultaneously. Impoverished families have both educational and social protection benefits from these programs as depicted in (World Bank, 2006).

Take-home meals improves mathematics scores for older children thus improving their performance on their primary leaving examination elaborated by (Adelman, et all; 2008) in their studies in Ugandan schools. This improvement in mathematics and literacy is revealed in children who delayed beginning their schooling. In addition, the feeding interventions improved their performance on one test of cognitive function and further evidence on meta-analysis of controlled before-and-after studies found an improvement of 0.66 SD score in mathematics test (Kristjansson, et al; 2007). Despite all the above

studies providing sufficient literature evidence none of the studies focused on preschool children or essentially considered a peri-urban area like Langata Sub-County.

2.5.4 Onsite Meals and Enrolment

The World Bank reports that 30% of the malnourished children under five years, while 65% complete primary school at the right age in low income countries (Ahmed, 2004). The school drop outs that result from poor parental homes is at 60% globally as reported by UNICEF (2000), however, the school feeding programs have escalated the pupils' enrolment and school attendance. Adelman, et al. (2008) presents the role school meals and grade repetition, learning achievement and general school performance and two mechanism involved are.

First, since the meals improves class attendance, the children spent more time learning improving their school performance and minimizing the probabilities of school drop-out. However is dependent on other factors school quality, availability of learning materials and teacher quality. Thus, unless properly implemented, school feeding has rather the potential to worsen drop-outs (Dheressa, 2011**)**

Second, improved nutrition enhances pupil participation and performance in both short and over long run. In short run, the school meals could alleviate hunger and make children concentrate and learn better to improve their academic performance hence reducing school drop-out. In long-term, school meals enhance learning by improving the nutritional status of children affecting their learning process, (Ahmed, 2004).

In the study by Ahmed (2004) in Bangladesh, School Feeding Program was nonetheless found to have significant negative impact on student drop-out. This study revealed that the primary school drop-out rate was 29% and while the general completion rate was 6% higher in control rural areas. However, controlling for child and household characteristics, he found that the feeding program reduces the likelihood of school drop-out by 7.5% (Espejo, 2009).

2.5.5 Daily Recommended Allowances and Enrolment

In Iraq, the SFP was undertaken to support the Ministry of Education in helping the vulnerable people. Under the programme, the children receive 80grams nutritious dates fortified with a range of vitamins. The World Food Programmes experience for the last 45 years, show that by providing at least one nutritious meal daily, boosts enrolment and promotes regular attendance. Furthermore, parents were motivated to send their children to school instead of keeping them at home (WFP & World Bank, 2009).

A study in England explains the educational benefits from improved food quality for children (Belot & James, 2009). In Belot and James, (2009) study, comparison was made on London based primary schools that shifted from low-budget processed foods toward healthier options and found significant improvements in English and sciences. This study implies that food quality affects academic results even for children in a rich country who are not undernourished. The study further indicates that by ensuring the recommended daily portions are provided to children this would increase their mental acuity and sharpness in class. Future studies should be considered in low-income settings in Kenya to confirm the relationship between meat consumption, milk as energy supplement and their significant impact on education performance (Whaley, et al; 2003). However, both

empirical studies do not take into consideration the enrolment rate in preschool children. Furthermore the time gaps in the study may render their findings structurally not reflective of the current research.

A study in Huaraz, Peru by (Ahmed, 2004) found that the attendance rate of fourth and fifth grade student increased by 0.58% due to school breakfast meals and declined by 2.92% in control schools (Adelman & Gilligan, 2008). The evaluation took place in 30 days after the start of the breakfast program alongside the program implementation in control schools.

CHAPTER THREE: RESEARCH MEHODOLOGY

3.1 Introduction

This chapter describes the research design used in the targeted population, sample and sampling procedures, the research instruments, validity and reliability of the instruments, data analysis methods and procedures and ethical considerations.

3.2 Research Design

According to Mugenda and Mugenda (2003), research design is the framework that helps to guide the solving of a research problem. The study used descriptive survey design to acquire information on the current state of an object of study, (Mugenda & Mugenda, 2003). Descriptive research according to Kothari (2004) is a powerful form of quantitative analysis. Using the design can therefore help in formulation of knowledge and solutions to the existing problem. Hence, the design was the most appropriate for this study.

3.3 Target Population

Population is the set of all units of analysis in one's problem area as defined by Mugenda (2003). Hence, population describes a large collection of individuals targeted by the specific study. The population for the research was the head teacher and two public preschool teachers within public pre-schools in Langata Sub-County; hence 3 respondents per school. The study considered public primary schools owing to the high population of pupils in public schools. Private schools were excluded since the majority have students from wealthy families hence the findings may be skewed.

According to the Nairobi County Government (2015) there are 14 public primary schools within Langata Sub-County. The total target population for the study was 14 X 3 = 42

respondents. The study further conducted focus group discussions with children within the public schools in Langata Sub-County. In selecting three respondents per institution the research made an assumption that is based on the ministry of education minimum requirements for teachers per any level of schooling within public institutions.

3.4 Sampling and Sample Size

Sampling is a careful selection of sub group from the accessible population so as to be a representative of the whole population with relevant characteristics, (Mugenda & Mugenda, 2003). Due to the optimal target population the study adopted a census and random sampling method to select an optimal sample size. Thus, the total sample respondents were 42 drawn from the 14 public primary schools within Langata Sub-County. Random sampling was utilized in selecting the ECDE teachers in schools with more than two teachers.

3.5 Data Collection

The head teachers and preschool teachers in the selected schools provided the primary data used in the study. The questionnaire used in data collection was semi-structured. Chandaran (2004) asserted that a questionnaire communicates to the respondent what is intended and elicits desired response in order to achieve the research objectives. The questionnaire utilized a 5-point Likert scale and open ended questions. The study also conducted focus group discussion with the students to elicit more information to be utilized in solving the research problem. Secondary data was collected from journals, government publications and donor agencies reports. The secondary data collected from the institutions was utilized in measuring the enrolment rate within the early childhood classes.

3.6 Pilot Test

A pilot study was done before the actual data collection and the results obtained used to refine the measuring instruments by removing redundancies and inconsistencies in the instruments after testing its reliability and validity. The pilot test was conducted from select schools within Kamukunji Sub-County.

3.6.1 Reliability Tests

Reliability is the consistency of the results obtained (Fraenkel, 2000). The internal consistency of the research instrument was accessed using the Cronbach Alpha. The study adopted all variables with a Cronbach Alpha of above 0.7. The findings of the pilot test Cronbach Alpha were as per the table 3.1 below.

Table 3.1: Case by Case Reliability Statistics

Indicator	Cronbach's Alpha	N of Items
Prevalence level of school feeding programs	.849	4
Take Home Rations	.789	5
Onsite Meals	.813	5
Recommended Daily Allowance	.843	5
School Learning Facilities	.798	3

From the above Table 3.1 analysis all the study indicators had a Cronbach Alpha of above 0.7 hence were considered for the study.

3.6.2 Validity Tests

Kombo and Tromp (2009), validity of a test is a measure of how well a test measures what it meant to capture. The researcher used both content and faces validity to review

and develop an informal opinion as to whether or not the test is measuring what it is supposed to measure. Content validity on the other hand was used by the researcher to check whether the items in the questionnaire answer the research questions by seeking the opinion of the supervisor. The supervisors advised accordingly in the construction of the questionnaire finally with a positive opinion.

3.7 Data analysis Procedures

Qualitative and quantitative data was collected during the study. The acquired data was analyzed using descriptive statistics which included the mean, frequencies and percentage. This was done using Microsoft Excel, Statistical Package for Social Science (SPSS 23). The study further undertook correlation tests to measure the magnitude of association between the research variables. Content analysis was used in qualitative analysis to draw conclusions. The analyzed data was presented using charts and tables.

3.8 Ethical Considerations

Prior to embarking on this research, the proposal was presented to the supervisor(s) for academic approval. In addition of the permission from department of education foundations and the respective universities. The researcher also debriefed the research assistants to ensure they are aware of the ethical guidelines. The researcher also prepared an introduction letter that was presented to the respondents during the data collection process to ensure they are aware of their rights to confidentiality and willingness to participate in the research. The researcher also sought research permit from NACOSTI.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION

4.1.0 Introduction

This chapter presented the data analysis, interpretation and presentation on the influence of school feeding program on the enrolment rate in public preschools in Langata Sub-County. The research findings were presented using tables, Charts, percentages and other measures of central tendency. Correlation analysis was conducted to measure association between research variables.

4.1.1 Response Rate

A total of 42 questionnaires were distributed to the respondents. Out of these, 36 were returned with responses whereas 14 were never returned or were either returned while faulty. This gave the study a response rate of 86% which is adequate according to Mugenda and Mugenda (2010) who recommends a response rate of 75% or above. The results are as displayed in the Figure 4.1 below;

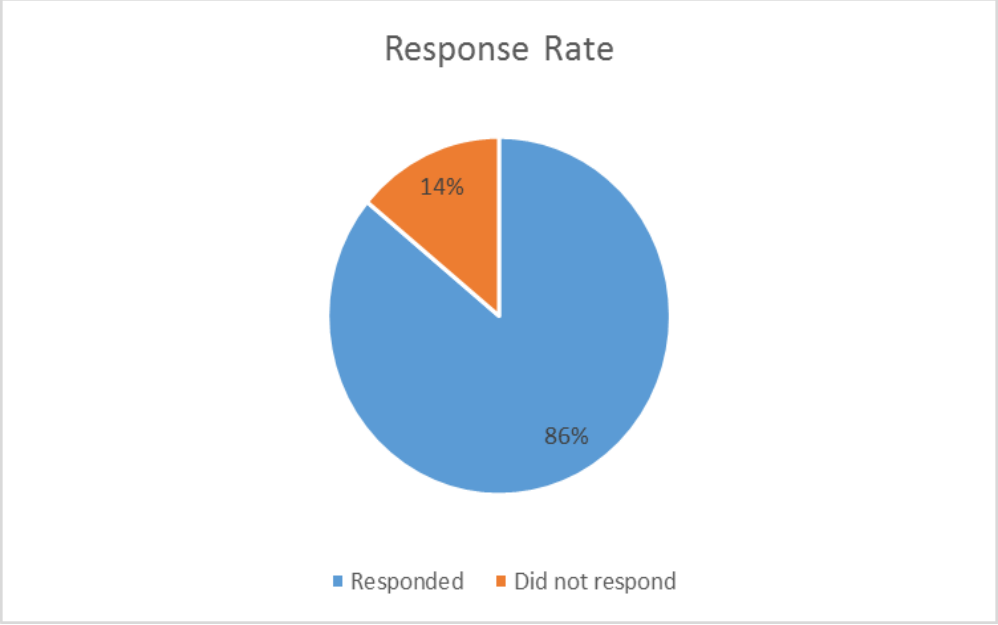

Figure 4.1: Response Rate

4.1.2 Demographic Information of the Respondents

4.1.2.1 Gender of Respondents

The study required to know the gender of the respondents. According to the findings the n=24 (67%) were female while only n=12, (33%) of them were male teachers as shown in Figure 4.2 below; this was an implication that majority of the teachers and head teachers reached who teach in the pre-schools were female.

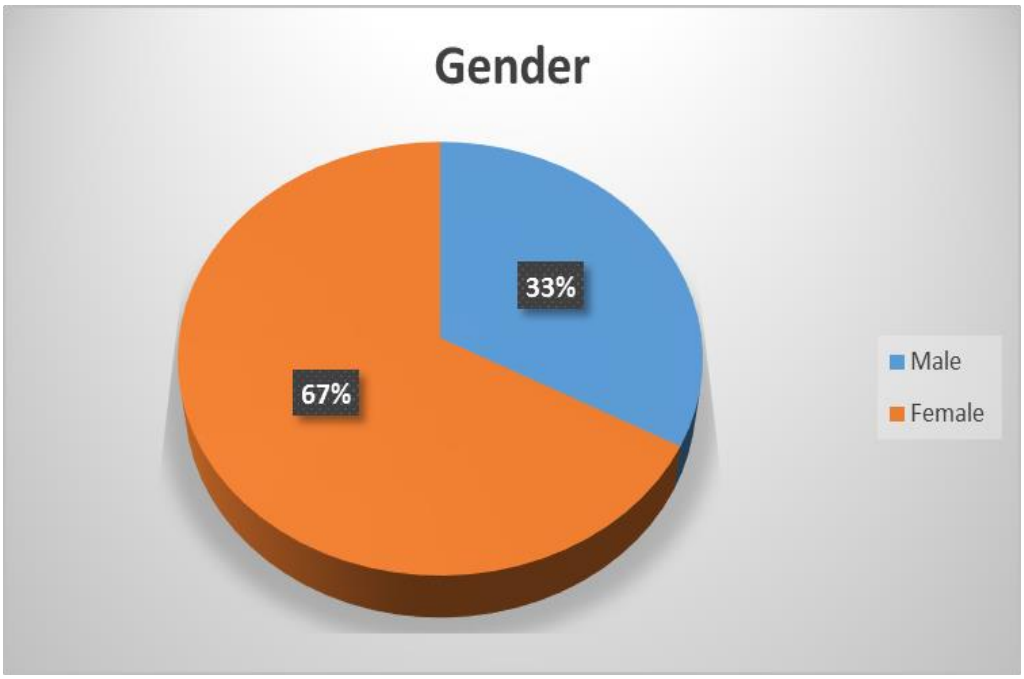

Figure 4.2: Gender of Respondents

4.1.2.2 Age of Respondents

The study required to find out on the age of the respondents. The results are as shown in the table 4.1 below

Table 4.1: Respondents Age

	Frequency	Percent
Below 25 years	1	2.8
25 - 35 years	12	33.3
36 years and above	23	63.9
Total	36	100.0

The results of the study shown on Table 4.1 above indicate that the majority of the respondents 64% (n=23) were 36 years and above, 33% (n=12) were between ages 25-35 years while only 3% (n=1) were below 25 years of age. The results on age are as presented in the Figure below;

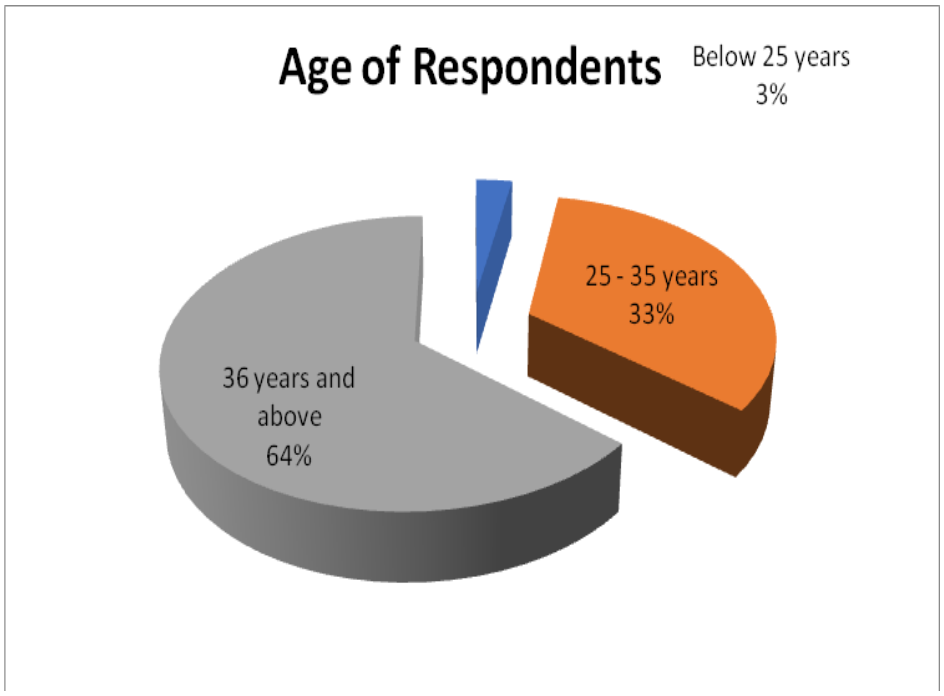

Figure 4.3: Age of Respondents

4.1.2.3 Level of Respondents Education;

The table 4.2 below presents the respondents education levels.

Table 4.2: Respondents Education

	Frequency	Percent
O – level	4	11.1
certificate	3	8.3
Diploma	17	47.2
Graduate	9	25.0
Post graduate	3	8.3
Total	36	100.0

The study required to establish the level of education of the repsondents. The findings of the study on Table 4.2 above indicate that 47% of the respondents (n=17) had attained diploma level education, 25% (n=9) of them were degree graduates, 11% (n=4) had O-level education, 8% (n=3) had postgraduate level education while only 8% (n=3) had certificate level education. Similar information is displayed in the figure 4.4 below;

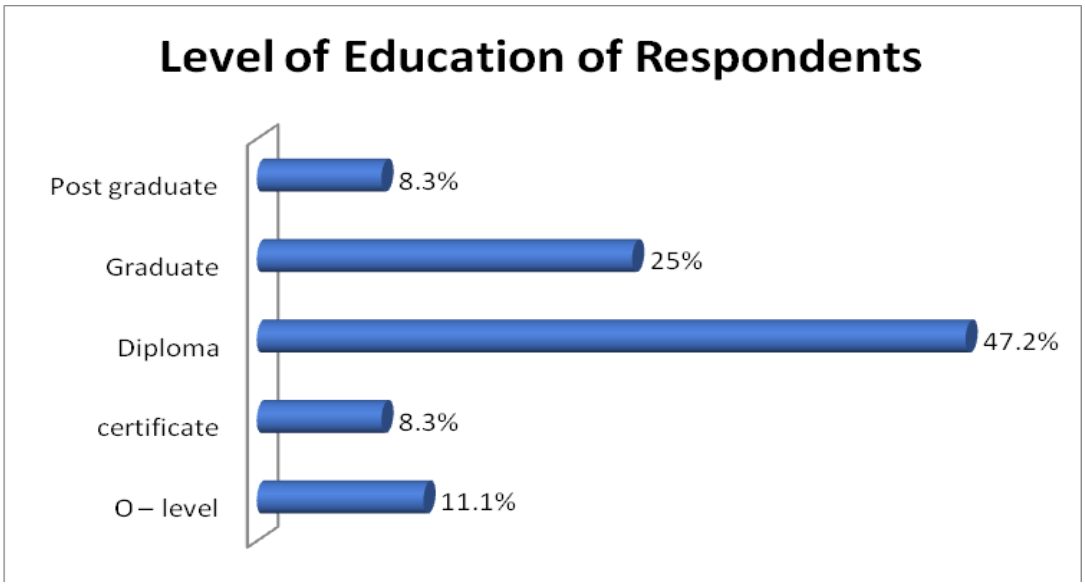

Figure 4.4: Level of Education of Respondents

4.1.2.4 Position Level in School

The results in the Figure 4.5 below depict findings on work level of the respondents. The results showed that 75% of the respondents (n=27) were ECDE teachers while only 25% (n=9) were head teachers as shown in the Figure 4.5 below;

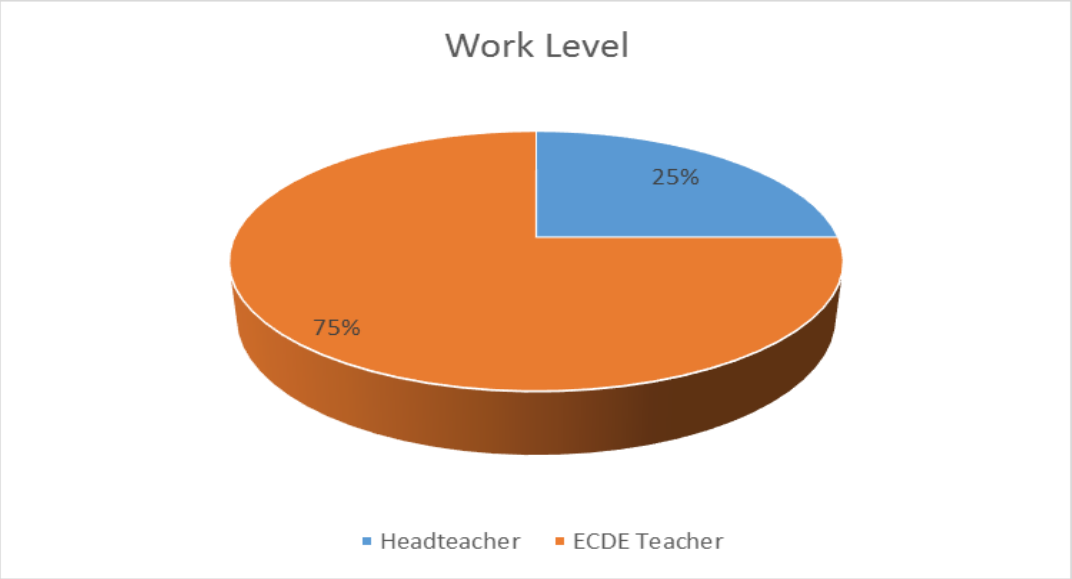

Figure 4.5: Position in the Institution

4.1.2.5 Experience of Teachers

The Table 4.3 below depicts findings on respondents' experience.

Table 4.3: Experience of teachers

	Frequency	Percent
Less than 5 years	10	27.8
5 –9 years	12	33.3
10 - 15 years	7	19.4
Over 15 years	7	19.4
Total	36	100.0

From the Table 4.3 above, 33% of the respondents (n=12) had between 5-9 years of experience, 28% (n=10) had less than 5 years of experience, 19% (n=7) had 10-15 years of experience and over 15 years of experience respectively. The same results have been displayed in the Figure 4.6 below:

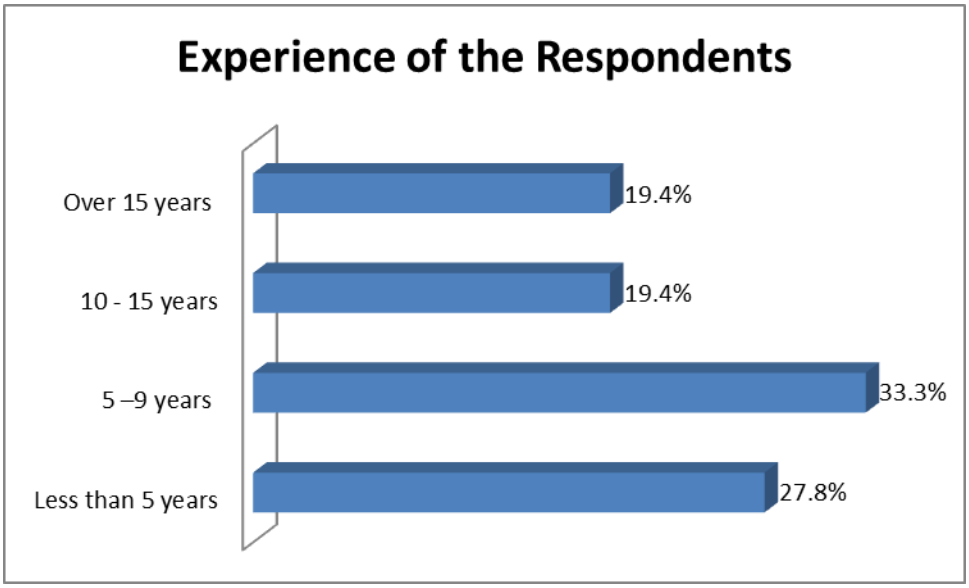

Figure 4.6: Experience of Teachers

4.2 Effect of prevalence level of school feeding programs on enrolment rate in public preschool in Langata Sub-County

Below is the data analysis on effect of prevalence level of school feeding programs on enrolment rate in public preschool in Langata Sub-County.

Table 4.4: Prevalence level of school feeding programs on enrolment rate in public preschool in Langata Sub-County

Statements	Mean (1.0-5.0)	Std. Dev
There is increased frequency in offering feeding programs rations that influence enrolments rate	3.53	1.183
The school feeding programs is sustainable within the institution for it enhances increase in enrolment rate	3.36	1.437
Delivery of meals is consistency within the school thereby increasing the enrolment rate	3.44	1.362
There is a well-detailed policy to guide the school feeding program	3.50	1.183
The school continuously monitors and evaluates the school feeding program with the hope of increasing enrolment rate	3.83	1.082

The Table 4.4 above depicts findings on effect of prevalence level of school feeding programs on enrolment rate in public preschool in Langata Sub-County. According to the results, majority of the respondents were in agreement that; there is increased frequency in offering feeding programs rations that influence enrolments rate as shown by a mean score of 3.53 and a standard deviation of 1.183, the school feeding programs is sustainable within the institution for it enhances increase in enrolment rate as shown by a mean score of 3.36 and a standard deviation of 1.437, the school continuously monitors and evaluates the school feeding program with the hope of increasing enrolment rate as shown by a mean score of 3.83 and a standard deviation of 1.082, there is a well-detailed policy to guide the school feeding program as shown by a mean score of 3.50 and a standard deviation of 1.383; and that; delivery of meals is consistency within the school thereby increasing the enrolment rate as shown by a mean score of 3.44 and a standard deviation of 1.362 respectively.

The finding above relates to UNSECO (2005); Wanjohi (2010) and Ahmed (2004) who all indicated that school feeding programs have been entrenched as a strategic policy within the Ministry of Education as a key socio-welfare tool geared towards encouraging intake within public schools. infact, improvement in educational outcomes and equaity among children is facilitated by the increased access to the pre-primary school by the children of the right age. The SFP should be depicted as part of a continuum and one of the interventions to support nutrirtion in school-aged children and does not target poor nutrition in pregnancy, infancy and early childhood, among other important cognitive abilities (Jukes, Drake and Bundy, 2008). Pre-primary schools feeding can be seen as preventive for children aged 3 to 5 years with the potential of bridging the gap between

infancy and primary school age – 6 to 11 years – in countries with preschools education system such as UK (Ahmed, 2004).

4.3 Influence of take home rations on the enrolment rate in public preschool in Langata Sub-County

Below is the analysis on influence of take home rations on the enrolment rate in public preschool in Langata Sub-County

Table 4.5: Respondents' level of agreement on influence of Take Home Rations and Enrolment Rate

Statements	Mean (1.0-5.0)	Std. Dev
Increasing take home rations reduces absenteeism in students	3.65	1.300
Increasing take home rations increases the students uptake ration	3.24	1.182
Increasing levels of take home rations helped bridge disparity gaps in enrolment	3.41	1.158
There is reduced disparity in enrolment in preschool children	3.34	1.211
Increased take home rations fostered performance in students	2.91	1.245

The study sought to know the respondents' level of agreement on influence of Take Home Rations and Enrolment rate. The results indicate that majority of the respondents were in agreement that; increasing take home rations reduces absenteeism in students as shown by a mean score of 3.65 and a standard deviation of 1.300, Increasing take home rations increases the students uptake ration as shown by a mean score of 3.24 and a standard deviation of 1.182, Increasing levels of take home rations helped bridge disparity gaps in enrolment as shown by a mean score of 3.41 and standard deviation of 1.158, there is reduced disparity in enrolment in preschool children as shown by mean score of 3.34 as shown by standard deviation of 1.211, Increased take home rations fostered performance in students as shown by a mean score of 2.91 and a standard deviation of 1.245. The above findings conform to the observations of Gelli et.al (2007)

who indicated that provision of food by World Food Programme increased enrolment rates at between 22%-28% in public schools. Similarly Afridi (2011); agreed that SFP encouraged enrolment and reduced absenteeism in schools. The findings are in general in agreement with WFP (2014) report in Kenya that indicated that serving lunch at school and offering take-home rations fostered enrolment rates in Kenyan schools. The school feeding programs serves as a motivation factor for enrolment especially in the developing countries such as Kenya. The onsite meals and take-home rations attract pupils to attend school (WFP, 2014). School feeding programs that offer meals regularly to the pupils' is attractive and provides social protection options by providing dual development issues simultaneously. Impoverished families have both educational and social protection benefits from these programs as depicted in (World Bank, 2006). In addition, the feeding interventions improved their performance on one test of cognitive function and further evidence on meta-analysis of controlled before-and-after studies found an improvement of 0.66 SD score in mathematics test (Kristjansson, et al; 2007). The above findings were echoed by case narrative 1 and 4 in the focus group discussions who indicated that;

#1 and 4 "… as much as they want to accomplish their educational goals they were in agreement that the availability of take home rations motivates them to attend school regularly in order to have consistent meals…"

Similarly in another case one of the minor respondents indicated;

#3" the main reason they come to school is to afford a continuous meal every day and take-home rations are a key supplement of their daily meals at home"

4.4 Influence of onsite meals on the enrolment rate in public preschool in Langata Sub-County

The Table 4.6 below represents the findings of the study with regard to influence of onsite meals on the enrolment rate in public preschool in Langata Sub-County.

Table 4.6: Respondents' level of agreement with regard to Onsite Meals and Enrolment Rate

Statements	Mean (1.0-5.0)	Std. Dev
Increasing onsite meals foster school attendance	4.11	1.008
Increasing onsite meals increases the students enrolment rate	3.92	1.052
Increasing onsite meals fostered students learning ability	3.53	1.23
Increasing onsite meals motivated students to spend more time in school	3.79	1.269
Increased onsite meals reduce dropout rates in school	3.91	1.648

According to the findings, majority of the respondents were in agreement that; increasing onsite meals fosters school attendance as shown by the mean of 4.11 with a variation rate of 1.008, increasing onsite meals increases the students enrolment rate as shown by the mean value of 3.92 and minimal response dispersion as indicated by the standard deviation of 1.05, increasing onsite meals fostered students learning ability there was agreement among the respondents as shown by the mean value 3.53 and a standard deviation of 1.23. These responses were in agreement with Adelman, et al. (2008) who showed that is a causal link between school meals and grade repetition, learning achievement and school performance.

Respondent were also in agreement that increasing onsite meals motivated students to spend more time in school as shown by the mean value of 3.79 and a standard deviation of 1.269 indicating minimal variations in the mean responses, increased onsite meals

reduce dropout rates in school as shown by 3.91 a mean value and 1.284 standard deviation indicating relative deviation from the mean responses. The above results are also in line with the conclusions drawn by Espejo, (2009) who found that found that school meals reduce the likelihood of school dropping out by school by 7.5%. Since the meals improves class attendance, the children spent more time learning improving their school performance and minimizing the probabilities of school drop-out. However is dependent on other factors school quality, availability of learning materials and teacher quality. Thus, unless properly implemented, school feeding has rather the potential to worsen drop-outs (Dheressa, 2011). The reults agreee with the statement that improved nutrition enhances pupil participation and performance in both short and over long run. In short run, the school meals could alleviate hunger and make children concentrate and learn better to improve their academic performance hence reducing school drop-out. In long-term, school meals enhance learning by improving the nutritional status of children affecting their learning process, (Ahmed, 2004).

These assertions are anchored further by one of the focus discussion respondents who pointed out that;

#2"Due to the low socioeconomic income at home there is little in terms of meals that are consistent at home which leads to them seeking to skip school due to hunger"

This is also echoed by another case narrative who pointed out that;

#3"Coming from a single family with other siblings makes it hard for the family to have decent meals at all times. Further lack of communal and school to offer consistent meal they drop out"

4.5 Influence of daily recommended allowances on the enrolment rate in public preschool in Langata Sub-County

Below is the analysis on influence of recommended daily allowances (RDA) on the enrolment rate in public preschool in Langata Sub-County.

Table 4.7: Respondents' level of agreement on statements on influence of recommended Daily Allowance on Enrolment Rate

Statements	Mean (1.0-5.0)	Std. Dev
Increasing RDA reduces absenteeism in students	3.48	1.034
Increasing RDA increases the students uptake ration	3.24	.855
Increasing levels of RDA helped bridge disparity gaps in enrolment	3.59	1.076
There is increased students motivation in preschool children as a result of increased recommended daily allowances	3.37	1.457
Increased RDA fostered attention in students	3.62	1.101

The findings on the Table 4.7 above assessed the respondents' level of agreement on influence of Recommended Daily Allowances on the enrolment rate in public preschools. There was agreement among respondents that increasing RDA reduces absenteeism in students as shown by the mean value of 3.48 with a standard deviation of 1.034 showing relative dispersion in the responses. Respondents also were in agreement that Increasing RDA increases the students' uptake ration as shown by the mean value of 3.24 and there was low deviation from the mean value as shown by the standard deviation value of .855. The findings are supported by Adelman and Gilligan, (2008) who argued that nutritious breakfast meals in school increased attendance rates within primary schools. In regard to increasing levels of RDA helped bridge disparity gaps in enrolment there was agreement

among respondents as shown by the mean value of 3.59 with small dispersion in responses as shown by a standard deviation value of 1.076.

There is increased students motivation in preschool children as a result of increased recommended daily allowances; the respondents were in agreement as shown by the mean value of 3.37 and a standard deviation of 1.457. The results further showed that in regard to increased RDA fostered attention in students', the respondents were in agreement as shown by a mean value of 3.62 and a standard deviation of 1.101. The above findings are supported by Belot and James, (2009) who indicated that quality food supplements in schools increased mental acuity and education outcomes among children. A study in Huaraz, Peru by (Ahmed, 2004) found that the attendance rate of fourth and fifth grade student increased by 0.58% due to school breakfast meals and declined by 2.92% in control schools (Adelman & Gilligan, 2008). The evaluation took place in 30 days after the start of the breakfast program alongside the program implementation in control schools.

4.6 Enrolment Rate in Public Preschools

The table 4.8 below presents the enrolment rates in the public pre-schools.

Table 4.8: Enrolment Rates

Enrolment rate in public preschools	Mean (1.0-5.0)	Std. Dev
There is reduced dropout rates in preschool children	3.57	1.335
There is increased retention rate in preschool children	3.94	.968
There is reduced absenteeism in preschool children	3.78	1.222
There is reduced disparity in enrolment in preschool children	3.26	1.221

Findings of the study on Table 4.8 above indicate that with regard to there is reduced dropout rates in preschool children, the respondents were in agreement as indicated by the mean value of 3.57 and there were was relative deviation of the responses from the mean as shown by the standard deviation of 1.335. Respondents were also in agreement that there is increased retention rate in preschool children as shown by the strong mean value of 3.94 with minimal variation in the responses as shown by the standard deviation of .968. The respondents were also in agreement that there is reduced absenteeism in preschool children as indicated by the mean value of 3.78 and a standard deviation of 1.222 which showed relative deviation from the mean response obtained. Findings in the study also indicated that there is reduced disparity in enrolment in preschool children as shown by agreement among respondents as represented by the mean value of 3.26 and a standard deviation of 1.221. The above findings are in support of the views of Wanjohi (2010) who indicated that there was an increase in enrolment rates in public preschools within the country. The findings also confirm the assertions by Afoakwa (2012) that implementation of school feeding program is statistically correlated to an increase in enrolment rates in preschools regionally.

4.7 School Learning Facilities Moderating Effect

The table 4.9 below presents findings on influence of school learning facilities.

Table 4.9: School Learning Facilities

School Learning Facilities	Mean (1.0-5.0)	Std. Dev
Availability of sufficient learning facilities fosters enrolment in preschool	4.14	.990
Teacher quality and expertize enhances the enrolment and retention rates in school.	4.25	.874
Adequate facilities and policies enhances the implementation of school feeding programs	4.00	1.111

The study examined the contribution of school learning facilities on the relationship between school feeding program and enrolment rate in public preschools. The findings on Table 4.9 in the previous page show that with regard to availability of sufficient learning facilities fosters enrolment in preschool learning; there was a strong level of agreement among respondents as shown by a mean value of 4.14 and a standard deviation of 0.99. Concerning teacher quality and expertize enhances the enrolment and retention rates in school; there was strong agreement among respondents as shown by a mean value of 4.25 with a standard deviation of .874 indicating moderate deviation from the mean responses.

In regard to adequate facilities and policies enhances the implementation of school feeding programs there was strong level of agreement among respondents as shown by the mean value of 4.00 and a standard deviation of 1.11. The findings in general supported the notion that school learning facilities have a statistically positive influence on the effectiveness of school feeding program as a tool of enhancing enrolment in public preschool. These findings are supported by Dheressa, (2011) who concluded that factors such as school quality, availability of learning materials and teacher quality were key to proper implementation of the school feeding program and supporting better enrolment rates.

According to case narrative 5;

#5 "the availability of school learning facilities, play activities and supporting teachers motivates them to attend school regularly. Furthermore, better school learningfacilities and availability of meals in school is a major predictor of their enrolment to preschool"

4.8 Correlation Analysis

The study sought to undertake a Pearson correlation analysis to investigate the magnitude of influence of each indicator of the SFP on the enrolment rate in public preschools. The correlation was carried out at a 95% confidence interval.

Table 4.10: Pearson Correlation Matrix

		prevalence level of school feeding programs	Take home Rations	Recommended daily Allowances	Onsite Meals
Prevalence level of school feeding programs	Pearson Correlation	1	.356*	.365*	.255
	Sig. (2-tailed)		.036	.031	.133
	N	36	35	35	36
Take-home Rations	Pearson Correlation	.356*	1	.692**	.352*
	Sig. (2-tailed)	.036		.000	.038
	N	35	35	34	35
Recommended daily Allowances	Pearson Correlation	.365*	.692**	1	.423*
	Sig. (2-tailed)	.031	.000		.011
	N	35	34	35	35
Onsite Meals	Pearson Correlation	.255	.352*	.423*	1
	Sig. (2-tailed)	.133	.038	.011	
	N	36	35	35	36

*. Correlation is significant at 0.05 level (2-tailed).
** Correlation is significant at 0.01 level (2-tailed).

The findings in the Table 4.10 above indicate the Pearson correlation coefficients between school feeding program and enrolment rate in public preschools. The findings indicate a statistically positive and significant association between the variables. The results obtained showed a positive statistically significant relationship between take home

rations and prevalence level of school feeding programs as shown by *r= .356, sig= .036.* This shows that a unit change in take home rations will result in *0.356* increase in prevalence or 35.6% increase. The results further indicated that there was a positive statistically significant relationship between recommended daily allowances and prevalence level of school feeding programs in public preschools as shown by *r= .365, sig= .031.* This shows that a unit change in recommended daily allowances will result in 0.365 increase in prevalence or 36.5% increase. The results also showed that there was a positive statistically significant relationship between onsite meals and Prevalence level of school feeding programs in public preschools as shown by *r= .255, sig= .133.* This shows that a unit change in recommended daily allowances will result in 0.255 increase in prevalence or 25.5% increase in enrolment.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusions, and recommendations of the research. on the influence of school feeding program on the enrolment rate in public preschools in Langata Sub-County. The objectives of the study were; to examine the effect of prevalence level of school feeding programs on enrolment rate in public preschool in Langata Sub-County, to examine the influence of take home rations on the enrolment rate in public preschool in Langata Sub-County, to determine the influence of onsite meals on the enrolment rate in public preschool in Langata Sub-County, to examine the influence of daily recommended allowances on the enrolment rate in public preschool in Langata Sub-County. The chapter also provides a suggestion to future scholars on the gaps that have been observed in the current study that can be examined in detail in future studies.

5.2 Summary of Findings

From the study results it was evident that the study was able to achieve the desired response rate at 86% which is within a strong level of response as indicated by the Mugenda and Mugenda (2008) who showed that a response rate above 75% is strong and appropriate for statistical inference. The majority of respondents were female teachers above 36 years of age. The results also showed that the majority of the respondents had atleast achieved more than a diploma level of education and had more than 5 years of experience thus indicating the quality of responses given was accurate owing to their experience in the institutions.

5.2.1 Effect of prevalence level of school feeding programs on enrolment rate in Public Preschools

The study found out that majority of the respondents were in agreement that; there is increased frequency in offering feeding programs rations that influence enrolments rate, the school feeding programs is sustainable within the institution for it enhances increase in enrolment rate, delivery of meals is consistency within the school thereby increasing the enrolment rate, there is a well-detailed policy to guide the school feeding program and that the school continuously monitors and evaluates the school feeding program with the hope of increasing enrolment rate as shown by the mean scores of 3.53, 3.36, 3.44, 3.50 and 3.83 respectively. These findings are in line with conclusions drawn by Musau (2014) who indicated that there is a national availability of school feeding programmes which has been supplemented by the adoption of homegrown school feeding programme and interventions by donors and churches.

5.2.2 Influence of take home rations on the enrolment rate in Public Preschools

The study found out that majority of the respondents were in agreement that; increasing take home rations reduce absenteeism in students, increasing take home rations increase the students uptake ration, increasing levels of take home rations helped bridge disparity gaps in enrolment, there is reduced disparity in enrolment in preschool children; and that; increased take home rations fostered performance in students as showed by the mean scores of 3.65, 3.24, 3.41, 3.34 and 2.91 respectively. This is supported by Khatete, Pendo and Oyabi (2013) who acknowledge that offering students take-home meals would encourage there retention in the school as well as foster there enrolment and reduce

absenteeism rates. Similarly, Wanjohi (2016) indicated that school feeding programmes encouraged retention rates especially when children are supplemented with home meals.

5.2.3 Influence of onsite meals on the enrolment rate in Public Preschools

The study found out that majority of the respondents were in agreement those; increasing onsite meals foster school attendance, increasing onsite meals increases the student's enrolment rate, increasing onsite meals fostered students learning ability, increasing onsite meals motivated students to spend more time in school and that increased onsite meals reduce dropout rates in school as shown by the mean scores of 4.11, 3.92, 3.53, 3.79 and 3.91 respectively. This is echoed by Wanjohi (2016) who indicates that in impoverished areas the idea that ready and free meals will be offered in school can help foster enrolment rates and retention rates in schools. Lucy (2016) also is of the view that availability on onsite meals in school will motivate more students to enroll to school thus expanding preschool uptake rates in schools.

Respondents were also in agreement that the school learning facilities had a positive influence on the association between school feeding programmes and enrolment rates. With regard to enrolment rates in public preschool there was an agreement that there has been a decrease in dropout rates in Kenya. The respondents also were in agreement that retention rate hasbeen fostered across public preschools in Kenya. Findings also showed that there is minimal absenteeism among public preschool children. These findings are echoed by Lucy (2016) who indicates that there has been stabilization in the attendance rates preschool across Kisumu County. Nationally the researcher indicates strides have been made that have fostered enrolment rates in the country.

5.2.4 Influence of Daily Recommended Allowances on the Enrolment Rate in Public Preschools

Concerning recommended daily allowances the study found out that majority of the respondents were in agreement that; Increasing RDA reduces absenteeism in students, Increasing RDA increases the student's uptake ration. Increasing levels of RDA helped bridge disparity gaps in enrolment, there is increased students motivation in preschool children as a result of increased recommended daily allowances, and that; increased RDA fostered attention in students as shown by the mean scores of 3.48, 3.24, 3.59, 3.37 and 3.62 respectively. The findings are in agreement with Hunter, Beltrame, Wasike, (2016) who noted that food biodiversity was essential for mental acuity and fostered performance among students. Similarly, Musau (2014) indicates that food rich in nutrients can enhance mental growth which can translate to high enrolment rates and better performance among students.

5.3 Conclusions

From the research findings and summary the following conclusions were made;

The study further concludes that the implementation of the school feeding program has been one of the main strategic tools that have been utilized across institutions to foster enrolment rates. The study findings have also showed that different aspects of the programs such as the take home rations have fostered the retention rates among students. Similarly the adoption of recommended daily allowances has been associated with better performance among students as it enhances the mental growth and acuity among children.

The study further concludes that onsite meals within schools are key factor motivating attendance and retention rates within schools as children are sure of availability of meals in school. Further availability of onsite meals have been associated positively with enrolment rates within schools. It was also found that the availability of school learning facilities supplements the school feeding programme as a tool of enhancing the enrolment rates in public preschools. There is a general increase in the enrolment rates within the public preschools This has translated in an upsurge of preschool learning centers to accommodate the growing population number. The findings of the study also conclude that in majority of the institutions the school feeding programme has been implemented with assistance from the government and other stakeholders in the donor community. The general Pearson correlation analysis concluded that there is a statistically positive relationship between the research variables.

5.4 Recommendations

1. The government should enhance their resource allocation towards the school feeding programmes to supplement the feeding programmes being undertaken by donor agencies across the country.
2. The school administration should engage parents, alumni's of the institution, churches and other NGO's to help supplement the school feeding programmes and enhance the sustainability of the project.
3. The availability of recommended daily allowances should be enhanced in order to foster mental growth of children. Further availability of take-home rations should be encouraged to ensure that children have a sure meal at home to avoid absenteeism and dropout within the preschools.

4. The school feeding programme should be expanded through better policy interventions and strategies that can allow for the feeding programmes to be undertaken even during holiday sessions especially where families have limited resources; this will help to ensure young children are fed continuously.

5.5 Area of Further Research

i. To examine the effectiveness of the government-sponsored school feeding programme in Kenya.

ii. Assessment on the modes to implement homegrown school feeding programme in Kenya.

iii. To examine the school-specific characteristics that influences the enrolment rates in public primary schools in Kenya.

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APPENDICES

Appendix I: Introduction Letter

UNIVERSITY OF NAIROBI

COLLEGE OF EDUCATION & EXTERNAL STUDIES

SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATIONAL COMMUNICATION AND TECHNOLOGY

Telephone: 020-2500759, 020-2500760 P.O. BOX 30197, 00100 NAIROBI

020-2500762, 020-2460056 P.O. BOX 92, 00902 KIKUYU

24 July 2017

TO WHOM IT MAY CONCERN

RE: OLUOCH CARREN AKINYI Reg No: E57/76915/2014

This is to certify that Oluoch Carren Akinyi No: E57/76915/2014 is a student of the University of Nairobi, Department of Educational Communication and Technology. She has completed her course work in Master of Education in Early Childhood Education. Her project Title is **"The Influence of School Feeding Program on Enrollment in Pre-Shcools in Langata Sub County."**

Any assistance accorded to her will be highly appreciated.

Yours faithfully,

PROF. PAUL A. ODUNDO
CHAIRMAN,
DEPARTMENT OF EDUCATIONAL COMMUNICATION & TECHNOLOGY

Appendix II: Teachers' Questionnaire

PART A: GENERAL INFORMATION

1) Age Bracket

   Below 25 years [ ]

   25 – 35 years [ ]

   36 and above [ ]

2) Gender

   Male [ ]

   Female [ ]

3) Education Level

   O- Level [ ]

   Diploma [ ]

   Graduate [ ]

   Post graduate [ ]

   Others

(Specify)……

4) Your position in the organization

   Head Teacher [ ]

   ECDE Teacher [ ]

5) Number of years in this institution

   Less than 5 [ ] 5-9 [ ] 10-15 [ ] Over 15 [ ]

PART B: SCHOOL FEEDING PROGRAM AND ENROLMENT IN PRESCHOOL LEARNING CENTERS

Please tick the level of agreement of the following statements.

Please indicate in the table with a tick (√) or a cross (×) with a scale of

5= strongly agree 4= Agree 3= Moderate Agree 2= Disagree 1= Strongly Disagree

1. Kindly indicate your agreement with following aspects of enrolmentin preschool children in Langata Sub-county

No	Enrolment	5	4	3	2	1
1.	There is reduced dropout rates in preschool children					
2.	There is increased retention rate in preschool children					
3.	There is reduced absenteeism in preschool children					
4.	There is reduced disparity in enrolmentin preschool children					

6. From your own observation what other experience have you witnessed with regard to enrolment in school by children in Langata Sub-County?

……

……

……

No	Prevalence of School Feeding Program	5	4	3	2	1
1.	There is increased frequency in offering feeding programs rations					
2.	The school feeding programs is sustainable within the institution					
3.	Delivery of meals is consistency within the school					
4.	There is a well-detailed policy to guide the school feeding program					
5.	The school continuously monitors and evaluates the school feeding program.					

7. How would you further consider the prevalence of school feeding programs within Langata Sub-County?

……

……

……

No	Take Home Rations and Enrolment	5	4	3	2	1
1.	Increasing take home rations reduces absenteeism in students					
2.	Increasing take home rations increases the students uptake ration					
3.	Increasing levels of take home rations helped bridge disparity gaps in enrolment					
4.	There is reduced disparity in enrolment in preschool children					
5.	Increased take home rations fostered performance in students					

8. From your professional experience in what other was does take home rations influence enrolment in schools?

……

……

No	Recommended Daily Allowances and Enrolment	5	4	3	2	1
1.	Increasing RDA reduces absenteeism in students					
2.	Increasing RDA increases the students uptake ration					
3.	Increasing levels of RDA helped bridge disparity gaps in enrolment					
4.	There is increased students motivation in preschool children as a result of increased recommended daily allowances					
5.	Increased RDA fostered attention in students					

9. In what other ways does recommended daily allowances influence enrolment in preschool learning centers?

……

……

No	Onsite Meals and Enrolment	5	4	3	2	1
1.	Increasing onsite meals foster school attendance					
2.	Increasing onsite meals increases the students enrolment rate					
3.	Increasing onsite meals fostered students learning ability					
4.	Increasing onsite meals motivated students to spend more time in school					
5.	Increased onsite meals reduce dropout rates in school					

10. From observation in what other ways have onsite meals enhanced enrolment in preschool learning centers in Langata Sub-County

……

……

……

No	School Learning and Facilities	5	4	3	2	1
1.	Availability of sufficient learning facilities fosters enrolment in preschool learning centers					
2.	Teacher quality and expertize enhances the enrolment and retention rates in school.					
3.	Adequate facilities and policies enhances the implementation of school feeding programs					

Appendix III: Focus Group Discussion Guide

i. Are there any meals provided within the school?

ii. How frequent are the meals provided within the institution?

iii. What are the most frequent meals provided under the school feeding program?

iv. Are there any meals provided to take home after school?

v. How is the quality of the meals provided by the school?

vi. How would you describe your willingness to be in school as a result of the feeding program?

Appendix IV: Letter NACOSTI

ORIGINAL

OFFICIAL RECEIPT AC: 19756

Station Nairobi Date 24/11/17

RECEIVED from Oluoch Carren Akinyi

Shillings One Thousand only

cents Nil

on account of Research Permit

Vote R-43

Head

Item N/A

Cash

Cheque No. Bank Deposit

USD	
Kshs	1,000=00
AC	
No.	

Signature of Officer receiving remittance

THIS IS TO CERTIFY THAT:
MISS. OLUOCH CARREN AKINYI
of UNIVERSITY OF NAIROBI, 92-100 Kikuyu,has been permitted to conduct research in *Nairobi County*

on the topic: *INFLUENCE OF SCHOOL FEEDING PROGRAM ON ENROLLMENT RATE IN PUBLIC PRE SCHOOLS IN LANGATA SUBCOUNTY, NAIROBI*

for the period ending:
14th November,2018

Permit No : NACOSTI/P/17/10502/19178
Date Of Issue : 15th November,2017
Fee Recieved :Ksh 1000

....
Applicant's Signature

GP Kalerwa
....
Director General
National Commission for Science, Technology & Innovation