



EFFECTS OF FEEDING PROGRAMME ON ENROLMENT RATES AND RETENTION IN PUBLIC ECD CENTRES IN SIGOR DIVISION, CHEPALUNGU DISTRICT, BOMET COUNTY, KENYA

John Kosilei¹ⁱ,

Esther Omundi²,

John Aseta³

¹PhD student in Education Management,
University of Kabianga, Kenya

²PhD student in Research and Evaluation,
Catholic University of East Africa, Kenya

³PhD Student in Geography,
Moi University, Kenya

Abstract:

The purpose of the study was to investigate the effects of school feeding programme on enrolment and retention rates in public pre-primary schools in Sigor Division, Chepalungu District, Bomet County. Sigor division has low enrollment rates of children in pre-school; it is also evident that there are drop outs. The research was carried out in Sigor Division in Chepalungu District in the 56 public preschools amongst pre-school teachers, pre-school SMC chairpersons and head teachers. The main objectives of the study included establishing availability of feeding programme and its effects on enrolment rates and retention, finding out how management and effectiveness of school feeding programmes affects enrolment and retention rates and also to give suggestions on how the feeding programmes could be improved so as to enhance enrolment and retention rates. The study was guided by Abraham Maslow theory of hierarchy of needs, this theory postulates that SFP motivate and attract learners to enroll in preschool and be retained upto the end of the school calendar. The study adopted the descriptive survey design. The target population was 560 subjects including 56 Head teachers 112 teachers and 56 SMC chairpersons. Data was collected by use of questionnaires, observation check list and interview schedule. Data collected was analyzed for descriptive statistics (percentage, means and frequencies). Pre-school teachers, parents, Ministry of Education, health sector players and other key stakeholders in early childhood development and education sector may use the information collected to enhance the effectiveness of the feeding programmes as a strategy for improving enrolment and retention rates. Data was analyzed using statistics (frequencies and percentages), the findings revealed that there are 26 pre-

ⁱ Correspondence: email kosileijohn@gmail.com, obutuesther@gmail.com, jaseta@kafuco.ac.ke

schools with SFP, while 30 pre-schools did not have the said programmes. There were 147 teachers and headteachers who responded and also 56 chairpersons, making total respondents 203. Most of the teachers and head teachers were male and likewise to chairpersons. The feeding modality in the schools with SFP was the school meals. Majority of teachers were of the opinion that SFP affects enrollment rates positively. It was evident that enrollment was low prior to implementation of SFP and changed to high upon implementation. Findings showed that SFP is effective in enhancing enrollment and retention rates. The biggest challenge to SFP as per findings include: - poverty, parental attitude and hardship area climatically. Chairpersons recommended education of parents as a way of enhancing SFP majority of teachers and head teacher mentioned parents and school committee as responsible for funding SFP. The study concluded that SFP exist in 26 schools out of 56. It also concluded that low enrollment rates and retention are caused by absence of SFP among other factors. It also concluded that effective management is recommended to achieve the objectives of school feeding programme. It also recommends that parents need to be educated on the importance SFP and also be empowered economically. The other recommendation is that there should be effective management of SFP for positive results. The study finally suggests further study to understand other factors affecting enrollment rates and retention.

Keywords: feeding programme, enrolment rates, enrolment and retention rates

1. Introduction

There are conflicting accounts on the origin and history of school feeding programmes. In his account, Tomlinson (2007) recounts the emergence of SFP in the 1930's in the United Kingdom (UK) and the United States of America (USA) with a focus on improving the growth of children. In another account, School Feeding Programme (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 became the first country to move the programme to a new level by incorporating school meals into a national legislation. By the 1930's, the UK and the USA had also instituted the SFP as part of their national programmes (Kearney, 2008). A further account indicates that School feeding initiatives has been in existence since the late 1700's and originated as projects of donors in Europe. The United States began the practice of initiating school feeding programmes in Austria as an act of international aid focused on combating the severe mal-nutrition of children in the 1940's after the Second World War. Since then, school feeding programmes have become a key part of food assistance and relief emergency and development programmes (World Food Programme, 2012).

World Bank (2010) report shows that every day more than 66 million children go to school hungry and, in many countries, fewer girls attend school than boys. Research shows that providing in-school meals, mid-morning snacks, and take-home rations through school feeding programs can alleviate short-term hunger, increase children's

abilities to concentrate, learn, perform specific tasks, and has been linked to an increase in the enrolment of girls. Low-income countries are expanding school feeding, because these programs help push them closer to reaching the Millennium Development Goals (MDGs) by drawing more children, especially young girls, into the classroom. If these programs provide micronutrients such as iron, iodine, vitamin A, B-vitamins, and zinc through fortified foods and are combined with other school health interventions such as de-worming, there may be additional benefits for children's cognitive abilities and educational achievement.

In 2008, the World Food Programme (WFP) operated school feeding programs in 68 poor countries, including most of Africa (WFP, 2009). In comparatively higher-income countries of Latin America, school feeding programs are just as common, and more likely to be funded and operated on a large scale by government agencies (Bundy et al., 2009). Today, School Feeding Programs are embraced by many countries both in developing countries and developed countries. For instance in Bangladesh, SFP has raised school enrollment by 14.2 percent, reduced the probability of dropping out of school by 7.5 percent, and increased school attendance by about 1.3 days a month. These results are obtained from econometric models that captured the impact of the SFP alone, isolating the effects of income and other factors (Ahmed, 2004).

School feeding programs have also proven effective in reducing the education gap between girls and boys. For example, program evaluation results from Pakistan, Morocco, Niger and Cameroon show that while food is the initial motivation for sending girls to school, parents of participating girls develop an interest in the education of their daughters. This change in attitudes is an important factor in enhancing parents' commitment to education beyond the duration of food assistance (WFP, 2009).

A study conducted in Malawi by WFP showed that a small, pilot, school feeding program over a three-month period led to a 5 percent increase in enrollment and up to 36 percent improvement in attendance (WFP, 2009). An evaluation of a school meal program in Jamaica found that after the first semester, the treatment class showed improved school attendance compared to the control classes (Powell, and Grantham-McGregor 1983). Another evaluation of a school feeding program in Burkina Faso found that school canteens were associated with increased school enrollment, regular attendance, consistently lower repeater rates, lower dropout rates, and higher success rates on national exams, especially among girls (Moore and Kunze, 1994). However, in a study conducted in Kenya, the investigators did not find a difference in the attendance rates between schools with and without the school feeding program (Meme et al., 1998). It is important however, to note that the effect of SFP on pupil enrolment and drop out from school in Kenya's public primary schools has not been the same across the country. For instance, a study by Karisa (2012) in Vitengeni Division, Kilifi District reveals that prior to the introduction of SFP pupil enrolment was not significantly different from that after introduction of SFP.

The same study reports that pupils' attendance to school after SFP introduction was significantly higher than before the SFP.

School feeding programs have been implemented in Kenya since the 1980's with varying degrees of success (Langinger, 2011). Used primarily to incentivize the enrollment and retention of rural children and girls, subsidized meal programs have played an integral part in realizing the country's goal of universal primary education. Historically, the involvement of large foreign players has greatly limited the Kenyan government's role in the direction and stewardship of these programs. Heavy reliance on foreign aid and management has subjected the programs to fluctuating, and often conditional, international support. In an effort to transition toward a more sustainable and nationally integrated alternative, the Kenyan government introduced the Homegrown School Feeding Program (HGSFP) in 2009. Though financial strains and infrastructural challenges have called into question Kenya's ability to successfully fund and operate its own school feeding program, the country's renewed commitment to education, agriculture, and rural development shows great promise.

In Kenya, approximately 65% of children are not attending preschool education (Murungi, 2012). This is likely due to inadequate and underfunded school feeding programmes. Hunger affects learning in a big way. A hungry child cannot effectively learn since he/she lacks energy to participate in school. Such a child is not able to concentrate in class or interact with the environment effectively. It is then necessary to provide school feeding programs to preschool children to nourish them well (Murungi, 2011).

Enrollments have been noticed to increase gradually and sometimes decline completely in some places in Kenya. Wamaru (2012) found out that School Feeding Programmes (SFPs) has led to increase in enrollments in some schools, while in others there have been a decline in enrollment especially in girls in spite of provision of school feeding programs.. This has proved that the school feeding programmes should not be underestimated.

A School Feeding Program (SFP) is essential to provide a balanced diet to ECD children which would in turn enable the children to increase their attention span hence better academic achievement (Chepkwony, Kariuki and Kosgei, 2013). The objectives of school feeding programs are to provide meals or snacks to reduce short-term hunger in the classroom so that the students can concentrate and learn better, and to attract children to school and have them attend regularly. School Feeding Programs (SFPs) are one of several interventions that can address some of the nutrition and health problems of school age children. SFPs and other school-based nutrition and health programs can motivate parents to enroll their children in school and to see that they attend regularly, programs effectively reduce absenteeism and drop outs. Jomaa (2011) posits that one of the motivations for establishing school feeding programs is to provide targeted families and their children, including girls, an incentive to enroll and / or attend school.

2. Statement of the Problem

Since the launch of the United Nations Millennium Development Goals 1 in 2000. SFPs have become a popular instrument used to achieve the goal on Universal Primary Education, education being seen as a major catalyst for human development. SFPs have had a long, international history and have gained prominence as a commendable social safety net with enormous benefits for children, parents and communities as a whole. Today, many developed and developing countries have implemented some form of SFP in the education sector (Uduku, 2011). Primarily, School feeding program is an intervention set up to provide meals to school going children in school; these meals serve as a good motivation to send children to school and keep them there and, in addition, enhances the cognition of the children. School feeding can be classified into two groups: in-school feeding, which involves providing children with food in school and take-home ration, where families are given food if their children go to school. Pre-school education in Kenya has been facing a number of challenges since independence. This includes shortage of finance, untrained teachers and lack of the syllabus and policy frame work, among others, however there has been determination to provide quality ECD education by stakeholders (MOEST, 2005) Public pre-schools in Sigor division Chepalungu District, in Bomet County, have a small number of children who have enrolled in ECD centres and it is also evident that there are drop outs. All these are largely attributed to the absence of a feeding programme (DICECE Chepalungu, 2011). It remains unclear whether absence of school feeding programme has impacted negatively on enrolment rates and retention in public pre-primary schools and thus, was the motive of this study.

2.1 Purpose of the Study

The purpose of the study was to investigate the effects of school feeding programme on enrolment rates and retention in public pre-primary schools in Sigor Division, Chepalungu District, Bomet County, Kenya.

2.2 Objectives of the Study

The following objectives guided the study:

- i). To establish effects of school feeding programmes on enrolment and retention rates in Sigor Division.
- ii). To find out how effective management of school feeding programmes affects enrolment and retention rates in pre-schools in Sigor Division.

2.3 Research Questions

The following research questions were stated for the study:-

- i). Does school feeding programmes affect enrolment and retention of pre-school children in Sigor division?
- ii). How does the management of school feeding programmes affect enrolment and retention rates in public pre- schools in Sigor Division?

2.4 Conceptual Framework

This study proposes a conceptual framework that links school feeding programme to children’s enrolment and retention. The school feeding programme is aimed at increasing school enrolment because it is believed that because poor parents could not provide food for their wards in school, these parents do not enroll their wards into schools. Even the poor parents, who do enroll their children in schools, find it thorny to ensure that their wards attend and remain in school every day till the school closes because they cannot provide food for their children in school every day through the term.

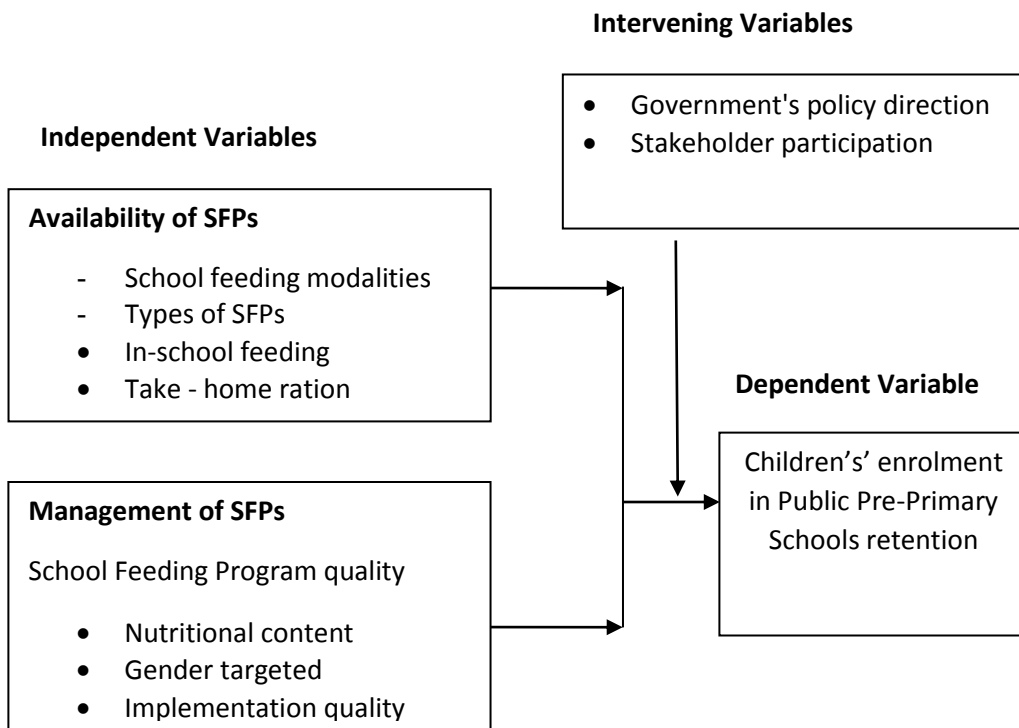


Figure 1: Conceptual Framework of the influence of School Feeding Programme on enrolment and retention rates in public pre-primary schools

Figure 1 shows that the Availability of SFPs; and school feeding modalities and quality referred to as independent variables do influence the pupils’ enrolment rates and retention in public pre-primary schools (dependent variable). However, this influence is subject to intervening variables such as government's policy direction and stakeholder participation

2.5 Research Methodology

This study adopted a mixed methods approach, by combining both a critical review of existing literature with in-depth interviews with key informants from the education sector. By employing qualitative approach in the study, the researcher will carried out a thorough investigation into a wide range of secondary and primary data and further diminished instances of inadequacies associated with primary data collection.

Data was collected via the use of interview guide. An interview guide was the preferred mode of data collection as it allowed for the collection of a lot of data over a short period of time and with minimum interruption to respondents schedules (Cooper & Schindler, 2000). The study also relied on secondary data from textbooks, journals, and academic papers. For sensitive data collected, the researcher ensured the safety of informants was not compromised. The study also focused on existing literature in school curriculum and also involved an exploration into the role of Peace Education syllabus in Kenyan schools in conflict transformation.

The research was carried out in Sigor Division in Chepalungu District in public pre- primary schools. The respondents in the research were pre-school teachers, school SMC chairpersons and head teachers of the sampled schools. The research was carried out between May 2014 and November 2014

2.6 Effective feeding approach which can be used to enhance enrollment rates and retention

The study sought to identify the most effective feeding approach available in the schools studied. The results are shown in figure 4.1.

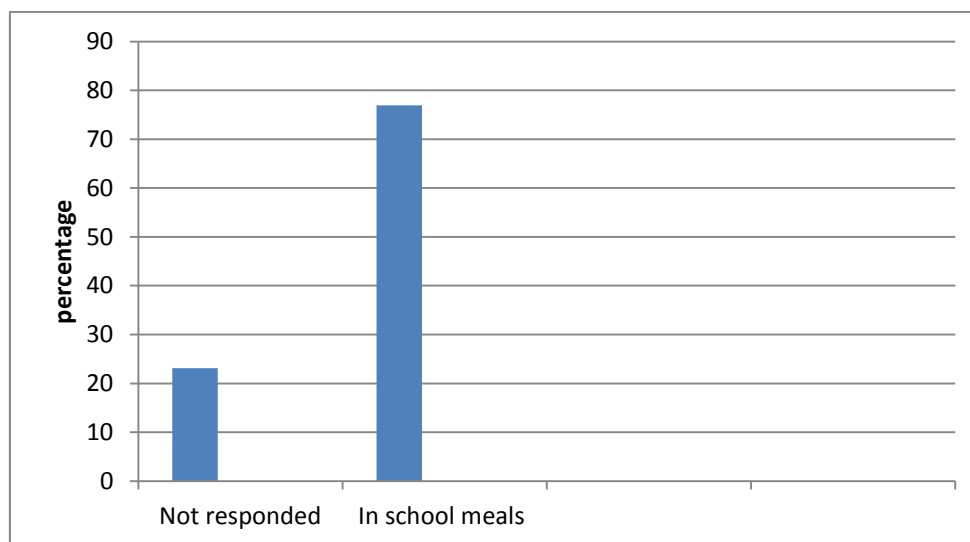


Figure 2: Feeding approach which can be used to enhance enrollment rates

The bar graph 4.1 revealed that the most effective feeding approach is in school meals, in that majority 113 (76.9 %) of teachers and head teachers were in support of it, while a small number 34 (23.1 %) didn't respond. The modality is suitable in that food is prepared in school which has the infrastructure such as kitchen.

In this approach food is cooked in a central point, it is one type hence uniformity as apposed, to on approach whereby children brings varied food types to school from their homes as packed food (WFP 2013) argues that SFP highlights three main areas of importance as social safety net used to address social needs especially in times of crisis, promoting child development through enhanced nutrition and improved learning and

boosting local agriculture to improve the economy and the income levels of local farmers.

Table 1: Teachers and Head teachers' opinion on effects of School Feeding Program on enrollment rates and retention

Item	Frequency	Percentage
Disagree	36	38.71%
Agree	51	54.84%
Undecided	6	6.45%

Table 1 sought to know the opinions of teachers and heads in regards to effects of school feeding program on enrollment rates and retention majority 51 (54.8%) positively agreed that a SFP will affect enrollment rates and retention positively, while 36 (38.71%) did not agreed. Therefore SFP can be used to enhance enrollment rates and retention in preschools. Those who were undecided were 6(6.45%). Adelman et al (2008) argues that SFP improves school attendance apart from nutritional status.

The second objective of the study also was to find out the effects of SFP in preschools on enrollment rates and retention. Data collected revealed that majority of teachers and heads stated that SFP positively affects enrollment and retention.

This therefore shows that before the start of SFP enrollment was low but upon implementation, enrollment and retention increased. The findings show that there is significant relationship between SFP and enrollment and retention. Those who were undecided were 6(6.5%) Bennett (2003) argues that SFPs in principle improves educational outcomes such as increasing the number of years a learner will spend in school. When food is provided in schools children will associate school and provision of food which may be challenge in their homes.

According Maslow (1971) human beings first must meet physiological needs before aspiring for the next level of needs as per his hierarchy of needs which he advanced. Young preschoolers required food rich in energy in that their curriculum is play oriented. Play requires a lot of energy hence the need to provide food in preschools.

Table 2: Chairpersons opinion on effects of school feeding program on enrollment rates and retention

Item	Frequency	Percentage
Not responded	10	18.5
Yes	41	75.9
No	3	5.6

Table 4.8 shows that out of 54 Chairpersons majority 41(75.925%) agreed that a SFP affects positively enrollment and retention while a small number 3(5.566%) did not agree Therefore if a SFP is implemented in a preschool there is likelihood of increase in enrollment rates and retention of children.

Munyiri (2010) argues that food assistance through SFP channeled to preschools maintain regular attendance rates in the school, increase attention span of learners, increase enrollment in preschools and primary school.

Table 3: Teachers and Head teachers opinion about Enrollment before the start of SFP

Response	Frequency	Percentage
Not responded	23	15.65
Low	98	66.66
Average	2	1.36
High	24	16.33

Table 3 shows that enrollment before the start of SFP majority of teachers and Head teachers 98(66.66%) were of the opinion that enrollment was low before implementation of SFP, while 24(16.33%) were of the opinion that it was high. This shows that absence of school feeding programme affected enrollment negatively. Only 2(1.36% of the respondents said it was average. Gilligan (2009) argues that SFP attract children to school and reduces hunger and while they learn, children will be conditioned to attend school in that they would associate going to school and provision of food.

Table 4: Teachers opinion on whether effective management of school feeding programme affects positively enrollment rates and retention

Item	Frequency	Percentage
Not applicable	4	2.7
small extent	51	34.7
Moderate	6	4.1
Large extend	86	58.5

Table 4 revealed that majority of teachers and Head teachers 86(58.5%) positively agreed that effective management of SFP will affect enrollment and retention of children, while 51(34.7%) disagreed. The findings show that for a SFP to influence enrollment rates and retention there should be effective management, this is one which will be able to avail resources required for SFP, in time and also coordinate all the activities in consistent manner. It will also be able to sustain the SFP for the entire school calendar without stopping. One big challenge in implementation of a school project is efficiency and effectiveness of the leadership. It is true to say that the success of SFPs depends mainly on the effectiveness of the management who liaise with stakeholders to achieve the set objectives of the institution. Del Rosso (1999) argues that lack of infrastructure, community and parental involvement, cost and government commitment among others are some of the factors affecting management and sustainability of feeding programs

2.7 Finding on effects of SFP on enrollment rates and retention

The second objective of the study was to investigate whether a SFP affects enrollment rates and retention positively. Out of the 147 respondents (teachers and headteachers)

majority 82 (55.78%) positively agreed that if a feeding program is initiated it will increase the number of children who will enrolled and also retain them for learning in the course of school calendar in schools since children will associate going to school and being given food. According to Murungi (2012) 65% of children in Kenya are not attending preschools school education due to inadequate and underfunded SFPs.

The chairpersons in their opinions agreed that if a SFP is implemented it will enhance enrollment in that majority 41(75.9%) agree that SFP will enhance enrolment while a small number 4(7.4%) report that enrollment is low irrespective of initiating school feeding. Those who were of the opinion that it average were 9(16.7%)

In the observation checklist 36(64.4%) of the school studied it revealed that enrollment was high, while in 5 (8.9%) it was seen to be low. The remaining school of 15(26.8%) said that enrollment was average.

2.8 Effects of management of SFP on enrollment rates and retention

The opinions of teachers and heads were sought on whether they agree that effective management of SFP affects enrollment rates and retention positively. Majority 86(58.5%) agreed that putting in place effective management to oversee SFP will impact positively on children's enrollment rates and retention, while those who disagree were 51 (34.7%) of the respondents. Effective management is one which will acquire and allocate resources to be used in implementing SFP. A good management ensures sustainability of a program so as to achieve the objectives of retaining and addressing short term hunger in school.

3. Conclusions

- i. The study concluded that there are quite a number of factors which brings about low enrollment in public preschools. The factors include absence of SFP, poverty hardship areas and attitude of parents towards ECDE among others. School feeding program is important in that it motivates children to be present in school throughout the school calendar without dropping. It was evident that whenever a SFP is initiated enrollment increases and when the program stops the number of children attending school dropped. This trend of happening revealed that SFP is factor contributing to low enrollment in the pre-schools.
- ii. The other conclusion is that effectiveness of SFP and effective management contributes greatly in enhancing enrollment rates and retention. Children will enroll in high number when they realize that there is food provided in school since as human beings they want their physiological needs met. They will also be retained in school when the program is sustained through its efficiency and effective management.

References

1. Adelman, S., H. Alderman, Gilligan D. O., and Konde-Lule J. (2008). *"The impact of alternative food for education programs on child nutrition in northern Uganda."* Draft, IFPRI, Washington, DC
2. Ahmed, A. U. (2004). *Assessing the performance of conditional cash transfer programs for girls and boys in primary and secondary schools in Bangladesh.* Project report prepared for the World Bank. Washington, D.C.: International Food Policy Research Institute.
3. Bennet J., (2003) *Review of School Feeding Projects.* DFID, UK. Bundy D (2005) 'School Health and Nutrition: Policy and programmes', *Food and Nutrition Bulletin*, (26) Supplement 2, S 186 –S192.
4. Bundy, D., Burbano, C., Grosh, M., Gelli, A., Jukes, M. & Drake, L., (2009). *Rethinking School Feeding: Social Safety Nets, Child Development and the Education Sector.* Retrieved November 6, 2014, from <http://books.google.co.ke/books?id>
5. Chepkwony, B.C, Kariuki, B.M & Kosgei, I. J (2013), School Feeding Program and Its Impact on Academic Achievement in ECDE in Roret Division, Bureti District in Kenya. *Journal of Emerging Trends in Educational Research and Policy Studies.* Vol. I 407-412
6. Del Rosso JM (1999). 'School feeding programmes: Improving effectiveness and increasing the benefit to education. *A guide for me program managers.*' The partnership for Child Development Retrieved from: <http://www.schoolsandhealth.org> on 12/10/2012
7. Gilligan, D. (2009). *International Food Policy Research Institute (IFPRI).* Washington DC.
8. Jomaa L. H., McDonnell E., & Probart C., (2011). *School Feeding Programs in Developing Countries: Impacts on Children's Health and Educational Outcomes.* Nutrition Review
9. Karisa S. (2012) Assessment of Home Grown School Feeding Programme (HGSFP) Theory in Kinango Sub-County, Kwale County, Kenya. *Journal of Humanities and Social Science*
10. Kearney, J.E. (2008) 'A comparative analysis of five different school feeding strategies in the Vaal region'
11. Maslow, A. (1971). *Hierarchy of Needs.* Official Abraham Maslow H. Maslow publication. America.
12. Ministry of Education, Science and Technology (2005). *A Policy Framework for Education, Training and Research.* Nairobi. Government Printers.
13. Munyiri M., (2010). *The Impact of School Feeding Programme on Performance of Pre-School Children in Kikuyu District – Central Province: University of Nairobi.*
14. Murungi, C. (2011). *Children's Basic Needs and Enrolment in Early Childhood Education in Miriga Meru West Division.* Unpublished Ph.D Thesis. Kenyatta University

15. Uduku, O. (2011) 'School building design for feeding programmes and community outreach: insights from Ghana and South Africa. *International Journal of Educational Development*
16. Tomlinson M., (2007). School feeding in east and southern Africa: Improving food sovereignty or photo opportunity? *Regional Network for Equity in Health in Southern Africa: (EQUINET) EQUINET Discussion Paper Number*
17. World Food Programme, (2009). [*"School Meals"*](#). World Food Programme. 2009. Retrieved 18 March 2013

Creative Commons licensing terms

Author(s) will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Education Studies shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflicts of interest, copyright violations and inappropriate or inaccurate use of any kind content related or integrated into the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).