

**EFFECTS OF NUTRITION ON GROWTH AND DEVELOPMENT OF PUPILS IN  
SELECTED PRIMARY SCHOOLS OF LOWER NYAKACH DIVISION,  
NYANDO DISTRICT, KENYA**

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**A RESEARCH REPORT SUBMITTED TO THE INSTITUTE OF OPEN AND  
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## DECLARATION

I, **Odingo Ochieng' Philip** declare that the material in this book has been done entirely by my efforts and has not been presented elsewhere for any academic qualification.

SIGNED

..........

**Odingo Ochieng' Philip**

DATE.....

## APPROVAL

This research report is submitted for examination with my approval as a University Supervisor.

SIGNED

.....

**Madam Taligoola**

SUPERVISOR

DATE

.....

## **DEDICATION**

For the well of my being, I dedicate this work to my beloved wife Olga and son Philip Junior K'odingo.

## ACKNOWLEDGEMENT

Above all things and personalities, big acknowledgement goes to the Almighty God, for intervening on my side all the while in my academic world and dreams. This far I have come in His glory.

May I extend my heartfelt gratitude to my beloved late parents Mr. and Mrs. Odingo Miseti for bringing me to this world, dear mum Lusia for teaching me one thing in life - never never give up, God rest their souls in eternal peace. My cousin Pollyns Ochieng for actually sacrificing every penny towards my entire education, may God bless him abundantly.

I am sincerely grateful to all those who sacrificed their valuable time out of their kindness to assist in all ways possible during the study. Special thanks to all my lecturers and mostly my supervisor Madam Taligoola who willingly devoted a lot of time to give me the best guidance and concentration, which has enabled me to complete this work successfully.

May God bless you so much.

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## DEFINITION OF TERMS

The following terms have been defined in the context of this research;

<b>Effects;</b>	The results that something brings
<b>Development;</b>	Children gradually growing and becoming strong.
<b>Growth;</b>	The development of children.
<b>Infection;</b>	The act or process of causing or getting a disease.
<b>Nutrition;</b>	The process in which primary pupils receive food necessary for them to grow healthy.
<b>Malnutrition;</b>	A poor condition of health caused by a lack of food or the right food.

## ABSTRACT

*The purpose of this study was to determine the effects of nutrition on growth and development in primary education in Upper Nyakach Division Nyakach District Kenya. The specific objectives of the study were to determine the effect of nutrition primary education pupils in relation to; growth and development in school achievement, Health and determine the importance of nutrition on primary education pupils. The methods used for data collection were questionnaires to the teachers and focus group discussions with pupils and interviews with the parents. The findings revealed nutrition had an impact on the growth and development of a child and also affected his/her educational achievements and health.*

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the study**

Malnutrition and infection are widespread in almost all developing countries. Among the most common conditions are protein-energy malnutrition (PEM), micronutrient deficiency disorders, helminthic (worm) infection, and upper respiratory illness. These conditions often combine to create negative synergies; thus, for example, PEM and infection frequently co-exist and multiply the ill effects that each would cause the organism if present alone. (Grantham-McGregor, S., C. A. Powell, S.P. Walker and J.H. Himes 1991)

Chronic food deficits affect about 792 million people in the world (FAO 2000), including 20% of the population in developing countries. Worldwide, malnutrition affects one in three people and each of its major forms dwarfs most other diseases globally (WHO, 2000). Malnutrition affects all age groups, but it is especially common among the poor and those with inadequate access to health education and to clean water and good sanitation. More than 70% of children with protein-energy malnutrition live in Asia, 26% live in Africa, and 4% in Latin America and the Caribbean (WHO 2000).

The endemic nature of malnutrition and infection is probably also at the root of additional health problems that impede learning among school-aged children. Poor vision and auditory impairment, for example, are conditions that directly relate to infection and micronutrient deficiencies. (UNESCO 2000)

Observed that vast numbers of school-aged children in developing countries face major health and nutrition problems that adversely affect their ability to take advantage of the limited educational opportunities available to them. Many of these children have a history of PEM as well as current nutritional deficiencies including deficits in body stores of iodine, vitamin A and iron. These conditions are exacerbated by helminthic infection

which is highly prevalent among school-aged children and particularly inimical to their healthy growth, development and educational progress. Temporary hunger and sensory impairment are also widely prevalent conditions (despite the fact that exact numbers are unknown) that vitiate attempts made by children and their families to reap the benefits of classroom instruction. (FAO 2000)

A World Bank report (2000) warns that unless action is taken within the first two years of a child's life to improve nutrition, children will suffer irreparable damage, ultimately adversely affecting the country's economic growth.

In Nyakach Division, of Nyando District, most of the children are malnourished due to the fact the area is a remote and a backward and most of the people are too poor to afford feeding their children properly. Even in schools where they are taken for care, there are facilities to feed them properly because the schools do not have the resources to initiate balance diet, hence the need for this study.

## **1.2 Statement of the Problem**

Malnutrition is among the most serious health problems in the world today that has not been taken serious. Most people do not take nutrition as something important and yet when a child is well fed he she will perform well in school. It is the lack of people's attention to children's nutrition and the impact it has on their growth that I took up the study.

## **1.3 Purpose of the Study**

The purpose of the study was to investigate the effects of nutrition on growth and development of early childhood and primary education pupils.

## **1.4 Objectives of the Study**

The general objective of the study was to investigate the effects of nutrition on growth and development of early childhood and primary education pupils.

## **Specific objectives**

Specifically this study seeks to;

To establish the impact of nutrition on pupils' growth and development

To find out if nutrition of children affects their school achievement

To establish the impact of nutrition on children's health and

Determine the importance of nutrition on early childhood and primary education pupils.

## **1.5 Research questions**

What is the relationship between child nutrition and learner's growth and development?

What is the relationship between nutrition and pupils' school achievement?

What is the relationship between nutrition and pupils' health?

What is the importance of nutrition on early childhood and primary pupils?

## **1.6 Scope of the study**

The study was carried in Nyando district and was limited to a few primary schools in Lower Nyakach Division, Nyando district is found in Nyanza province of Kenya . The study investigated the effect of nutrition on primary school pupils with focus on physical development, education and health of pupils in schools. The study was carried out between May, November 2010.

## **1.7 Significance of the study**

Health and nutrition is very important in the growth and development of children which is in turn important in their education and therefore policy makers will make policies that take into consideration the well being of the children in primary schools by improving their nutrition.

Schools will take into consideration the importance of feeding programs in schools and also realize that nutrition is important in the improvement and better performance in class.

Parents will therefore learn the importance of nutrition and therefore review their feeding habits.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter reviews literature as an account of the knowledge and ideas that have been established by accredited scholars and experts in the field of nutrition on the development of primary children. It is guided by the objectives of the study outlined in chapter one.

#### **2.1 Growth and development**

Nutrition is essential for growth and development, health, and well-being. Proper nutrition, health care, and stimulation during the early years improve learning and other abilities. Nutritional Programs facilitate the development of a child in all its dimensions and have considerable long-lasting effects on the child's life. (Levinger beryl 2000)

Poor nutrition during the first 3 years often permanently hampers a child's mental development. Some children start out growing well but over time begin to fall off, both in weight gain and then in height. If the condition progresses, FTT children may become apathetic and irritable and may not reach milestones, such as sitting up or walking at the usual age. It is possible that FTT children don't process needed nutrients as efficiently as non-FTT children and that this results in central nervous system defects, such as hyperactivity and disorders of attention and learning. (Grantham-McGregor 1991)

#### **2.2 School achievement**

A child's school enrollment. Attendance and achievement are influenced by a host of variables including the capacity of the child as a biosocial organism to process and respond to stimuli. (Grantham-McGregor et al 1991)

As the quality of biosocial organisms sitting in the classroom improves, so too does the efficiency of the child's learning. (WHO 2000) Nutrition and health problems impinge on

the quality of the biochemical organism and impinge the acquisition of skills and abilities needed to progress satisfactorily in the primary education.

According to MOEST (2004) by ensuring the health and nutrition of the learners, their minds are receptive in learning.

### **2.3 Health**

Malnutrition poses a serious threat to children's health and development, especially for the youngest children who are in a uniquely vulnerable period of rapid growth and development.

Malnutrition among young children is linked with poor health and increased risk of hospitalizations. (Cravioto, J. and Patricia Cravioto 1990)"

Malnutrition in all its forms increases the risk of disease and early death. Protein-energy malnutrition, for example, plays a major role in half of all under-five deaths each year in developing countries (WHO 2000). Severe forms of malnutrition include marasmus (chronic wasting of fat, muscle and other tissues); cretinism and irreversible brain damage due to iodine deficiency; and blindness and increased risk of infection and death from vitamin A deficiency.

The state of health is influenced by nutrition, medical care, environmental factors and social economic mental status of the child.

Deficiencies before birth and in the first five or so years of a child's life can cause mental retardation. In particular for this matter young children need plenty of protein which promotes healthy growth; most young people are also active and hence need adequate supplies of energy foods as well as vitamin and minerals to make sure that their body functions normally. (Grantham-McGregor 1991)



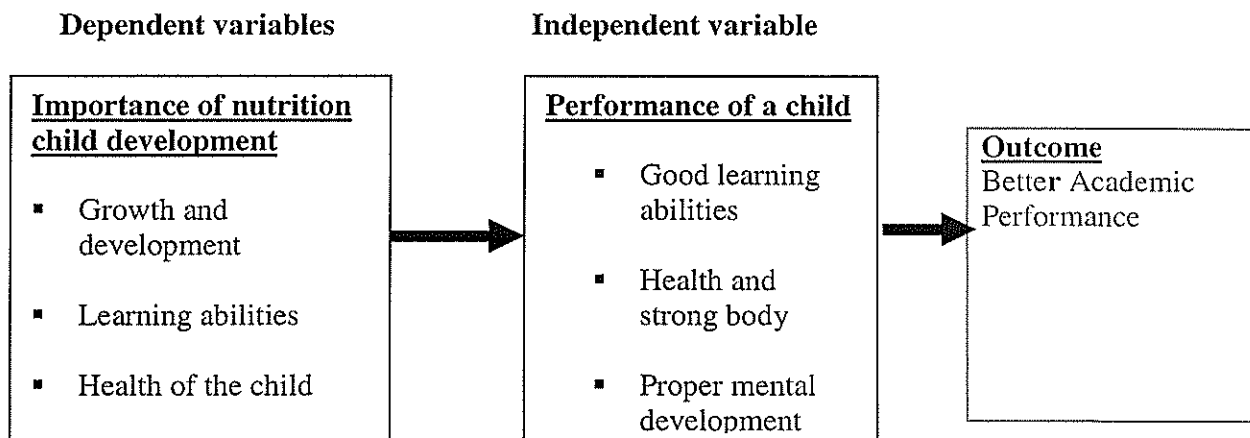
## 2.4 Importance of nutrition on primary education pupils.

Recent studies from the nutrition and economics literatures reaffirm the importance of nutrition for the cognitive achievement and school enrollment of children. Nutrition is also important for development of a country because if the children are healthy they will study well and therefore are future leaders. (Berkeley Seth and dean Johnson 1991)

Nutrition is essential to a child's health. Good nutrition can put a stop to many health problems, including becoming overweight, developing weak bones, and developing diabetes. Giving a child all the foods that have all the important nutrients will help him/her grow to her/his complete potential. A child's body prospers on certain nutrients that work together to promote growth and development.( WHO 2000)

Adequate supplies of food as well as vitamin and minerals make sure that children's body functions well and therefore perform well in school. (Latham m.et al 1991)

## 2.5 Conceptual frame work



According to researcher's understanding, there is a close relationship between Growth and development and good learning abilities. The researcher also perceives that learning abilities leads to health and strong bodies. Furthermore the researcher believes that the health of the child contributes to proper mental development as shown in the diagram above.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This section entails the study design, population and sample size, instruments of data collection, data collection procedure and analysis.

#### **3.1 Research Design**

This study used both descriptive and quantitative design. The research drew from both the qualitative and quantitative analysis approaches in order to get a bigger picture both in number and data.

#### **3.2. Study Area and Population**

This study was conducted in primary schools in Upper Nyakach division, Nyakach district, Kenya. And this was so because it is where the researcher lives and therefore it was easy to get information. The costs of transport were reduced. The population of the study were; Area education officers, teachers, pupils and parents in the area of study. The respondents included teachers, pupils and parents.

25 Questionnaires were distributed to teachers randomly and ten parents were purposively selected for interview while 25 pupils were to participate in focus group discussions.

#### **3.3 Instruments of data collection**

Questionnaires were used to extract information from teachers. Focus group discussions were used to get information from pupils and interviews were carried out with the parents. Open ended questionnaires were suitable for investigating deeper the subject matter. It was easier to get information from the parents in interviews than with questionnaires because getting them back was a problem while for the teachers it was easy because they were all in one place and that was the school.

### 3.4 Data collection procedure

A letter of introduction from the institute of Open and Distance Learning was to facilitate in the data collection exercise. The letter was handed to the head teacher before Questionnaires were distributed to teachers and focus group discussions carried on with pupils. The parents were interviewed from their homes and the data collected were sorted and categorized after which it was analyzed. The conclusions and recommendations were made.

### 3.5 Statistical treatment of data

The frequencies and percentages were used to determine the number of sample respondents used in the research process and the number that participated positively in contribution to the research.

Formula;

$$\text{Percentage (\%)} = \frac{F}{\text{Total number of respondents}} \times 100$$

Where F = number of respondents

Observed

Qualitative analysis; Data from questionnaires was standardized hence requiring categorization. Such data was presented in a descriptive form above which were used to discuss the results of quantitative data.

## CHAPTER FOUR

### DATA ANALYSIS AND INTERPRETATION

#### 4.0 Introduction

In this chapter, an attempt is made to interpret and explain the findings. Also, key information enables to relate to the specific objectives and give a clear picture of the results. The results are presented in form of tables and frequency counts and percentage. It focuses on the effects of nutrition on growth and development in early childhood primary education in primary schools in Upper Nyakach Division Nyakach district, Kenya

#### 4.1 Profile of the respondents

**Table 1: Shows the profile of the respondents.**

<b>Respondents</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Sex</b>		
Male	11	55
Female	9	45
<b>Total</b>	<b>20</b>	<b>100</b>
<b>Marital status</b>		
Single	8	40
Married	12	60
<b>Total</b>	<b>20</b>	<b>100</b>
<b>Age</b>		
19-24 yrs	4	20
25-30yrs	10	50
31 and above	6	30
<b>Educational level</b>		
Certificate	6	30
Diploma	9	45
Degree	5	25
<b>Total</b>	<b>20</b>	<b>100</b>

Source: Field data

Twenty five (25) questionnaires were distributed to the teachers and 20 were filled and returned .This therefore represents 80% of the total number of questionnaires that were distributed.

The study covered 20 randomly selected teachers of whom 11 (55%) were male and 9 (45%) were female.

Of the 20 respondents, 8 (40%) were single while 12 (60%) were married.

The age category of the respondents was divided in three groups that is 19-24 years were 4 which was 20%, 25-30 were 10 (50%) and 31 and above were 6 representing (30%) of the respondents.

The academic level of the respondents was divided in three categories that is certificate, diploma and degree. 6 (30%) of the respondents had certificates, 9 (45%) had diplomas and 5 (25%) had degrees.

Interviews were carried out with 10 parents both male and female. Six 6 of the parents were male while four 4 were female.

Focus group discussions were used to extract data from the pupils. 25 pupils were included in the discussion of which 14 were boys and 11 girls.

#### **4.2 Nutrition, Growth and development of pupils**

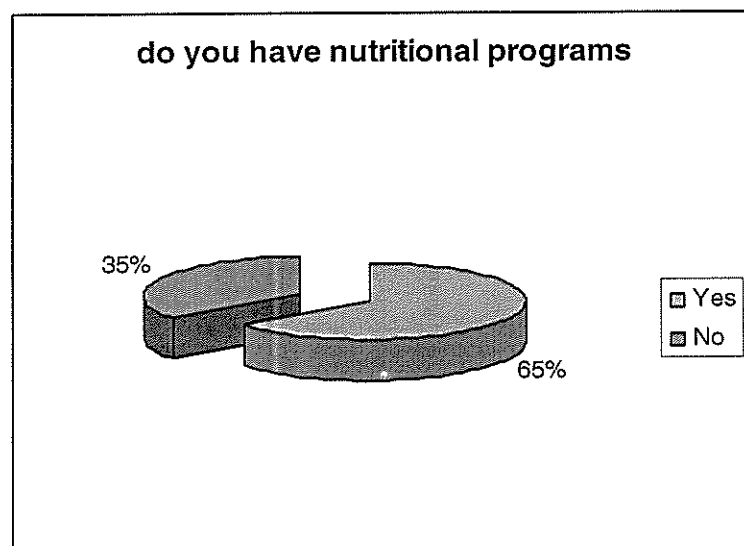
The respondents were asked whether they have nutritional programs in the school and this was their response.

**Table 2: Do you have nutritional programs in the school.**

Response	Frequency	Percentage
Yes	13	65
No	7	35
Total	20	100

Source: Field Data

**Chart 1**



The table and chart show that 13 (65%) of the respondents agree that they have nutritional programs in the school and 7 (35%) disagree. According to the parents the school they took their children to had nutritional programs and according to them it is important to take children to schools with nutritional programs because it is a contributing factor to educational achievement. In a focus group discussion with the pupils they also agreed that the school provided them with food at lunch time and porridge at break time and therefore they concentrated well in class.

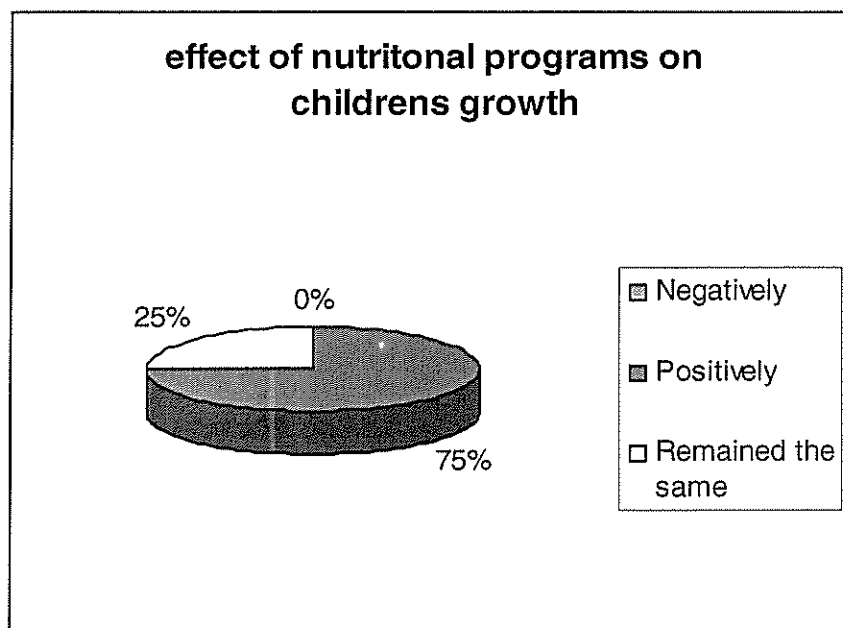
The respondents were asked how nutrition has affected the growth of children and this was their response.

**Table 3 how nutrition has affected the growth of children.**

Response	Frequency	Percentage
Negatively	-	-
Positively	15	75
Remained the same	5	25
Total	20	100

Source: Field Data

**Chart 2**



15 (75%) of the respondents said that nutrition has positively affected the growth of children and 5 (25%) said they have remained the same. According to the parents nutritional programs have positively affected their children's growth that is they are healthy and perform well in class.

#### **4.2.1 Nutrition and Disabilities among pupils**

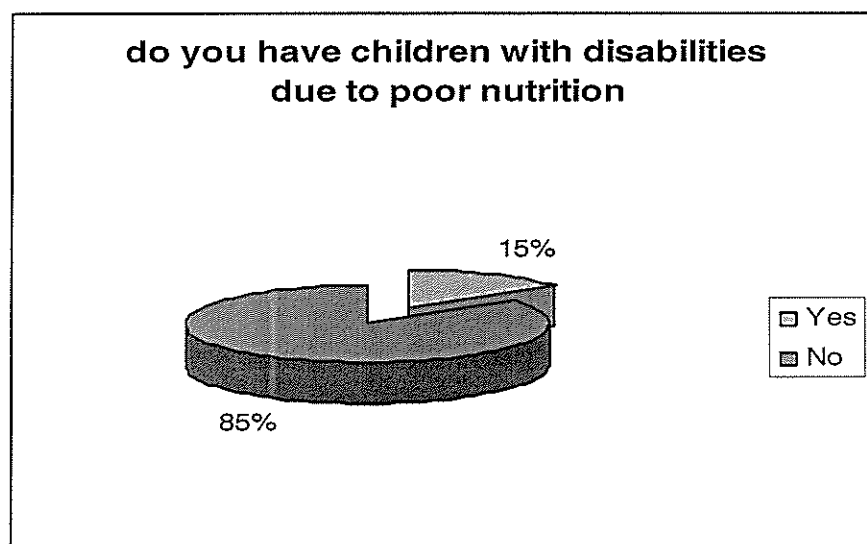
The respondents were asked whether they have children with disabilities due to poor nutrition and this was their response

**Table 4 do you have children with disabilities due to poor nutrition?**

Response	Frequency	Percentage
Yes	3	15
No	17	85
Total	20	100

**Source:** Field Data

**Chart 2.**



The table shows that 3 (15%) of the respondents agreed that they have children with disabilities due to poor nutrition while 17 (85%) disagreed.

Some parents revealed that they had children who were disabled due to poor nutrition especially those who were not well fed when young. They revealed that some had learning disorders and could not participate well in class.

#### **4.3 Nutrition and School Achievement**

The respondents were asked whether poor nutrition leads to poor performance of pupils in class and this was their response

**Table 5 poor nutrition leads to poor performance of pupils in class.**

Response	Frequency	Percentage
Strongly agree	10	50
Agree	8	40
Strongly disagree	-	-
Disagree	2	10
Total	20	100

Source: Field Data



10 (50%) of the respondents strongly agree that poor nutrition leads to poor performance of pupils in class while 8(40%) agree and 2 (10%) disagree. The parents agreed that feeding children contributed their academic performance because children who are healthy are capable to concentrate in class which leads to performing well.

#### 4.3.1 Hunger and School Achievement

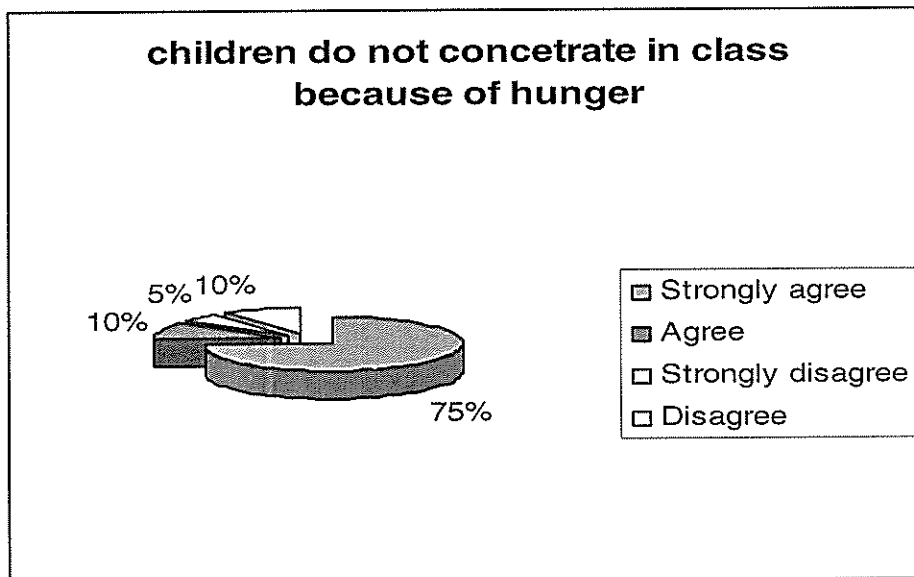
The respondents were asked whether children do not concentrate in class because of hunger and this was their response

**Table 6 children do not concentrate in class because of hunger**

Respondents	Frequency	Percentage
Strongly agree	15	75
Agree	2	10
Strongly disagree	1	5
Disagree	2	10
Total	20	100

Source: Field Data

**Chart 3**



15 (75%) of the respondents strongly agreed that pupils do not concentrate in class because of hunger, 2 (10%) agreed while 1(5%) strongly disagreed and 2(10%) disagreed. the parents said that it was obvious one could not concentrate on an empty stomach especially children. The pupils revealed that in some cases when the teacher delays them in class and they have to go for lunch they do not concentrate in class. They also revealed that in some cases the food is not prepared in time and therefore the children feel bad and some more especially in lower classes start crying.

#### **4.3.2 Child Nutrition and enrolment of Pupils in school**

The respondents were asked whether poor nutrition leads to low enrollment of pupils and this was their response

**Table 7 poor nutrition leads to low enrollment of pupils.**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Strongly agree</b>	<b>8</b>	<b>40</b>
<b>Agree</b>	<b>6</b>	<b>30</b>
<b>Strongly disagree</b>	<b>2</b>	<b>10</b>
<b>Disagree</b>	<b>4</b>	<b>20</b>
<b>Total</b>	<b>20</b>	<b>100</b>

**Source:** Field Data

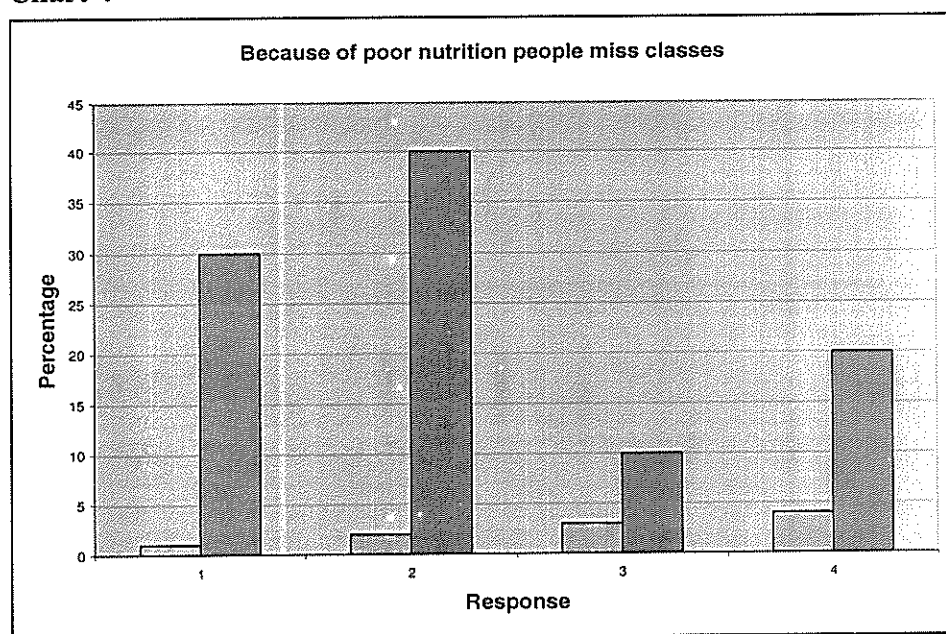
The table shows that 8 (40%) of the respondents strongly agree that poor nutrition leads to low enrollment of pupils, 6 (30%) agree while 2 (10%) strongly disagree and 4 (20%) disagree. According to the parents children who are not well fed always fall sick and therefore cannot attend school which means that the enrollment is affected. The respondents were asked whether pupils miss classes because of poor nutrition and this was their response.

**Table 8 Pupils miss classes because of poor nutrition.**

Response	Frequency	Percentage
Strongly agree	6	30
Agree	8	40
Strongly disagree	2	10
Disagree	4	20
Total	20	100

Source: Field Data

**Chart 4**



6 (30%) of the respondents strongly agreed that because of poor nutrition pupils miss classes, 8(40%) agreed while 2 (10%) strongly disagreed and 4 (20%) disagreed

According to the parents many children miss classes because they have not had anything to eat and sometimes they refuse to go to school because they have nothing to eat there. The pupils revealed that they could not attend classes when they were hungry and sometimes they missed classes because of sickness which could be caused by poor nutrition for example diarrhea and stomachache.

#### 4.3.3 Poor nutrition and achievement of learners

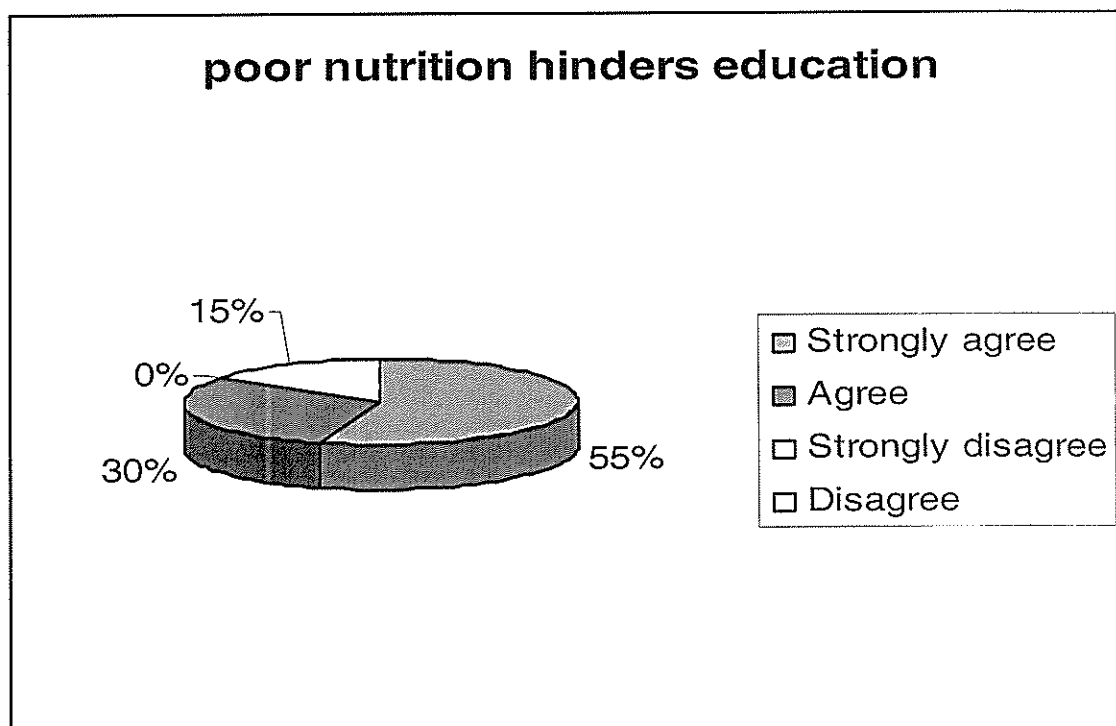
The respondents were asked whether poor nutrition hinders the achievement of education and this was their response.

**Table 9 poor nutrition hinders the achievement of education.**

Response	Frequency	Percentage
Strongly agree	11	55
Agree	6	30
Strongly disagree	-	-
Disagree	3	15
Total	20	100

Source: Field Data

**Chart 5**



The table shows that 11(55%) of the respondents strongly agreed that poor nutrition hinders the achievement of education, 6 (30%) agreed and 3 (15%) disagree.

The parents agreed that poor nutrition hindered academic achievement in a way that if pupils cannot concentrate in class then the performance will not be good which leads to repetition and hence school dropout. This means that the goal of government is not realized that is achieving education for all.

#### **4.3.4 Proper Child Nutrition and Future Academic Progress**

The respondents were asked whether children who were fed in the early years perform and learn well in class and this was their response.

**Table 10 well fed children perform well in class**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Strongly agree</b>	<b>10</b>	<b>50</b>
<b>Agree</b>	<b>5</b>	<b>25</b>
<b>Strongly disagree</b>	<b>1</b>	<b>5</b>
<b>Disagree</b>	<b>4</b>	<b>20</b>
<b>Total</b>	<b>20</b>	<b>100</b>

**Source:** Field Data

10 (50%) of the respondents strongly agree that children who were well fed in early years perform and learn well in class, 5 (25%) agree while 1 (5%) strongly disagree and 4 (20%) disagree.

The parents agreed that it was obvious children who were well fed in their early ages grew up to be strong and healthy. They stressed the importance of early childhood feeding and therefore called for parents to make sure they fed their children and right in their early years.

The respondents were asked whether most parents do not know the importance of nutrition on educational outcome and this was their response

**Table 11 do parents know the importance of nutrition on educational outcome.**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Strongly agree</b>	<b>9</b>	<b>45</b>
<b>Agree</b>	<b>5</b>	<b>25</b>
<b>Strongly disagree</b>	<b>2</b>	<b>10</b>
<b>Disagree</b>	<b>4</b>	<b>20</b>
<b>Total</b>	<b>20</b>	<b>100</b>

9 (45%) of the respondents strongly agree that most parents do not know the importance of nutrition on educational outcome, 5 (25%) agree while 2 (10%) strongly disagree and 4 (20%) agree.

The parents disagreed that they knew the importance of nutrition on academic achievement and revealed that the hindrance to good nutrition was poverty that is some parents do not have enough money to buy what is important for the children.

#### **4.3.5 Poverty, Nutrition and Pupils' Academic Performance**

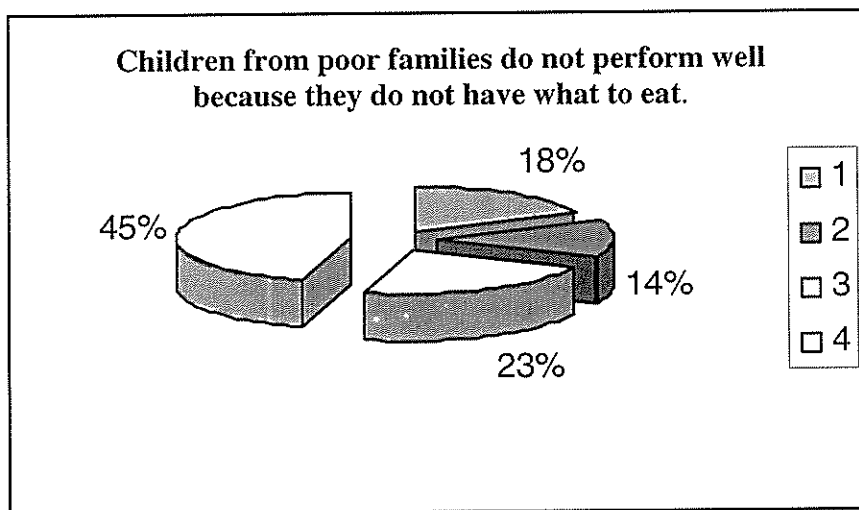
The respondents were asked whether children from poor families do not perform well in school because they do not have what to eat and this was their response.

**Table 12 children from poor families do not perform well because they do not have what to eat.**

Response	Frequency	Percentage
Strongly agree	2	20
Agree	3	15
Strongly disagree	5	25
Disagree	10	50
Total	20	100

Source: Field Data

**Chart 6**



The table and chart show that 2 (10%) of the respondents strongly agree that children from poor families do not perform well because they do not have what to eat, 3(25%) agree while 5 (25%) strongly disagree and 10 (50%) disagree.

Most parents interviewed agreed that they did not have enough money to buy food for the children and therefore the children did not perform well in class.

According to the pupils some children go to school because of the food prepared since they cannot get at home and therefore do not concentrate in class because they are waiting for the bell to ring so that they go and eat.

#### 4.4 Child Nutrition and Health

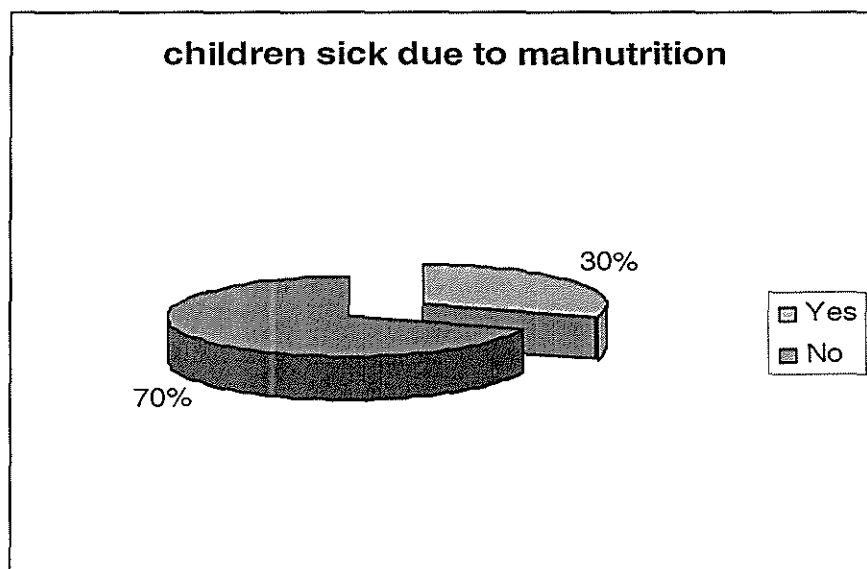
The respondents were asked whether they have children who are sick due to malnutrition and this was their response.

**Table 13: Children who are sick due to malnutrition**

Response	Frequency	Percentage
Yes	6	30
No	14	70
Total	20	100

Source: Field Data

**Chart 7**



6 (30%) of the respondents agree that they have children sick due to malnutrition and 14 (70%) disagree. some parents revealed that they had children who were sick due to malnutrition.



The common diseases named were kwashiorkor, marasmas, dysentery and diarrhea. The teachers revealed that the schools had clinics where the children go treatment and such children are fed well to gain their health. They revealed that in order to prevent the diseases the children were fed well. According to the teachers the diseases have affected the performance of the children because they miss classes to go for treatment and therefore perform poorly.

#### 4.5 Importance of Proper Nutrition

The respondents were asked how important nutrition is on early childhood and primary education and this was their response.

**Table 14 how important is nutrition on early childhood and primary education.**

Response	Frequency	Percentage
Very important	6	30
Important	9	45
Not important	5	25
Total	20	100

**Source:** Field Data

The table show that 6 (30%) of the respondents said that nutrition is very important on early childhood and primary education while 9 (45%) said is important and 5 (25%) is not important.

The parents agreed that nutrition was very important and therefore must be taken seriously by schools, government and parents.

According to the teachers nutrition is important in boosting education because children perform well in class when they are healthy and satisfied.

They also revealed that it was important on the development and growth of children and also help them not catch some diseases

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.0. Introduction**

The major purpose of the study was to the effects of nutrition on growth and development in early childhood primary education. This chapter focuses on the summary of the findings, conclusions and recommendations. Finally the chapter ends with suggestions for further research.

#### **5.1. Summary of findings**

The first objective was to determine the effect of nutrition on early childhood primary education in regards to growth and development. The study revealed that the school had feeding programs that is (65%) of the respondents agreed that they have nutritional programs in the school. They also agreed that nutrition is very important in the growth and development of children and this is supported by Levinger Beryl (2000) that nutritional programs facilitate the growth of a child in all dimensions and have considerable long lasting effects on a child's life.

The second objective focused on poor nutrition and school achievement and 50% of the respondents strongly agreed that poor nutrition leads to poor performance of pupils in class. According to Grantham McGregor (1991) school attendance and achievement are affected by a host of variables including the capacity of a child as a biosocial organism to process and respond to stimuli. The study also revealed that children from poor families did not perform well in class because of hunger and therefore did not perform well and this is supported by FAO (2000) hunger hinders school achievement.

The third objective focused on nutrition and the health of the pupils.

30% of the respondents agreed that they had children who were sick due to malnutrition. According to WHO (2000) malnutrition in all its forms increases the risk of disease and early death.

Finally the study focused on the importance of nutrition and

30% of the respondents said that nutrition is very important on early childhood and primary education. According to Berkeley Seth and Dean Johnson (1991) nutrition is important for a development of a country because if children are healthy they study well and become future leaders.

## **5.2. CONCLUSION**

The main purpose of the study was to determine the effects of nutrition on growth and development in early childhood primary education

It was established that nutrition was very important to the growth and development of a child and that poor nutrition led to diseases.

Poor nutrition leads to poor performance in class and children who are hungry cannot concentrate in class. The study also revealed that poor nutrition affected the enrollment of pupils.

The study found out that poor nutrition led to diseases and therefore because of diseases children do not perform well in school.

The study also found out that nutrition was very important and that for a country to develop it had to focus on nutritional programs.

## **5.3. RECOMMENDATIONS**

The health and academic performance of school-going children are increasingly being affected due to poor and inadequate nutrition. Children need good health and nutrition for good human growth and development. The type of food or diet a child eats affects his growth and development. This in return affects the way his brain develops and functions. Unfortunately, many of these parents swim in great poverty. Even though most parents toil and struggle for survival by practicing subsistence farming and some small scale

businesses, still, they do not afford sufficient food for the children. The government should make sure that it focuses on nutritional and feeding programs in schools.

The rural public has its own special nutritional problems. Some parents, due to ignorance, do not attach much importance on a well balanced diet to good performance in school. As a result, majority feed their children in kind of nutrient majorly carbohydrate. In some communities, culture is a major hindrance to good feeding habit; these include taboo in some food or children of a particular sex. The parents and the community should be sensitized on the importance of nutrition on early childhood and also taught how to feed their children what is right and important.

Many parents are not committed to the education of their children. They wake up very early in the morning for their personal business without actually preparing breakfast for their children. The same is repeated at lunch break, as a result, children attend school on empty stomachs. Parents should make sure that they provide food for their children before they go to school so that they do not go hungry and fail to concentrate in class. Parents should make sure that they provide food for their children as they go to school so that they do not go hungry and fail to concentrate in class.

A topic or subject on nutrition should be taught to the pupils so that as they grow up they know the importance of nutrition and how to eat right.

### **Suggestions for further research**

More research should be done on the effect of nutrition on primary education.

Research should also be done on sanitation and clean environment of schools because it is important.

It would avoid children from contracting diseases associated with food prepared on dirty environment, which might hinder with their performance.

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## APPENDICES

### APPENDIX A

#### TRANSMITTAL LETTER

#### TRANSMITTAL LETTER FOR THE HEAD TEACHER

MAY, 15<sup>th</sup> 2010

To Whom It May Concern:

Dear Sir/Madam,

I am a graduating student at Kampala international university pursuing a bachelor in education. I here by write to request you to allow me carry out research in your institution. I am conducting a study on the effect of nutrition on early childhood primary pupils.

I would be grateful for your permission and assistance in conducting the study.  
Respectively yours,

..........

**Odingo O. Philip**

Noted by:

.....

**Supervisor**

.....

**Madam Taligoola**

## APPENDIX B

### Questionnaire to the teachers

Dear respondent the purpose of the study is to investigate the effect of nutrition on primary pupils and you have been chosen in the study you are requested to tick where appropriately and fill in the gaps. I would like to bring to your attention that the information will be treated with utmost confidentiality.

NB. Do not write your name anywhere on this paper

#### Personal information

##### Age

19-24yrs

☐

25-30yrs

☐

31 and above

☐

##### Sex

Female

☐

Male

☐

##### Marital status

Single

☐

Married

☐

##### Educational level

Certificate

☐

College

☐

University

☐

##### Growth and development

1. Do you have nutritional programs in the school?

Yes

☐

No

☐

2. How has nutrition affected the growth of the children?



It has affected them negatively ☐

It has affected them positively ☐

They have remained the same ☐

3. Expand on the answer you have given above.....  
.....

4. Do you have children with disabilities due to poor nutrition?

Yes ☐

No ☐

### School achievement

Below are statements on school achievement and nutrition. Please tick the one you most agree with.

5. Poor nutrition leads to poor performance of pupils in class

STRONGLY AGREE ☐ AGREE ☐

STRONGLY DISAGREE ☐ DISAGREE ☐

6. Children do not concentrate in class because of hunger

STRONGLY AGREE ☐ AGREE ☐

STRONGLY DISAGREE ☐ DISAGREE ☐

7. Poor nutrition leads to low enrollment of pupils

STRONGLY AGREE ☐ AGREE ☐

STRONGLY DISAGREE ☐ DISAGREE ☐

8. Because of poor nutrition pupils miss classes

STRONGLY AGREE ☐ AGREE ☐

STRONGLY DISAGREE ☐ DISAGREE ☐

9. Poor nutrition hinders the achievement of education

STRONGLY AGREE ☐ AGREE ☐

STRONGLY DISAGREE ☐ DISAGREE ☐

10. Children who were well fed in the early years perform and learn well in class.

STRONGLY AGREE ☐ AGREE ☐

STRONGLY DISAGREE ☐ DISAGREE ☐

11. Most parents do not know the importance of nutrition on educational outcome.

STRONGLY AGREE ☐ AGREE ☐

STRONGLY DISAGREE ☐ DISAGREE ☐

12. Children from poor families do not perform well in school because they do not have what to eat

STRONGLY AGREE ☐ AGREE ☐

STRONGLY DISAGREE ☐ DISAGREE ☐

## Health

13. Do you have children who are sick due to malnutrition?

Yes ☐

No ☐

14. Please name the common diseases in your school related to malnutrition.....

15. How do you treat them .....

16. How do you prevent them.....

17. How have the diseases affected the performance of the children?

.....

.....

## Importance of nutrition on early childhood and primary education pupils.

18. How important is nutrition on early childhood and primary education.

Very important ☐

Important ☐

19. Give ways in which nutrition is important to early childhood and primary education.....

## **APPENDIX C**

### **INTERVIEW GUIDE FOR THE PARENTS**

- 1 Are there feeding programs in the school you take your child?
2. How have the nutritional programs affected your child?
3. Do you have children with disabilities due to malnutrition?
4. How has nutrition contributed to your child's school achievement?5. How has nutrition affected your child's health?6. How important is nutrition on early childhood and primary education.

## **APPENDIX D**

### **FOCUS GROUP DISCUSSION FOR THE PUPILS**

1. do you have feeding programs in your school
2. how have they been important to your growth
3. how have they helped in your school achievements
4. Do your parents pack for you food.