# HOUSEHOLD STRUCTURE AND ACADEMIC PERFORMANCE OF JUNIOR HIGH SCHOOL STUDENTS IN MANHYIA SUB-METRO OF KUMASI

**KNBy** ST

Brembah Marian (B.A.)

A Thesis Submitted to the Department of Sociology and Social Work, Kwame Nkrumah University of Science and Technology in partial fulfilment of the requirements for the degree of

**MASTER OF ARTS** 

Faculty of Social Studies, College of Art and Social Sciences

SANE NO

# **DECLARATION**

I hereby declare that this submission is my own work towards the M.A Degree in Sociology and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

Brembah Marian, PG5697511		
Student Name & ID	Signature	Date
Certificated by:		
Dr. Martin Kwa <mark>ku Yeboah</mark>		
Supervisor's Name	Signature	Date
Certificated by:		
Mr. Jonas Asa <mark>manin Barni</mark> e	E SEUME	
Supervisor's Name	Signature	Date
Certificated by:		
Dr. K. O. Akuoko		
Head of Dept. Name	Signature	Date

# **DEDICATION**

This work is dedicated to my love, my daughter Adepa Afriyie and all heads of households in Manhyia sub- Metro of Kumasi.



#### ACKNOWLEDGEMENT

I would like to thank those who sacrificed the most during this endeavor, especially my mother. Without the support from my mother, Mary Brembah, my education would not have been possible. I would like to take a moment to thank my daughter, Adepa for sacrificing time spent with me because of the time required for this accomplishment.

I would like to appreciate the patience and understanding offered by my partner, Joe, who made the struggle as easy for me as he could. I would also like to thank my supervisor, Dr. Martin Kwaku Yeboah for providing me all the instructions and advice needed to excel in the masters program.

I also wish to acknowledge the encouragement and support I received from the following persons: Mr. Jonas Asamanin Barnie (KNUST), Mr. Bright Addo (KNUST), Mr Emmanuel Osei (GSS) and Mrs. Alice Gyamfi (St. Hubert SHS)

Finally to all students and teachers who participated in the field survey as well as the head teachers of the schools who assisted with the survey, I am sincerely grateful to you all.

## **ABSTRACT**

This study describes the household structure of Junior High School pupils in Manhyia sub-metro of Kumasi and their academic performance. The objectives were to establish the relationships between household size, sex of household head, economic background of household head, the level of education of household head and academic performance of pupils.

The study was a cross-sectional descriptive study of 100 J.H.S. students in Manhyia Submetro of Kumasi between the ages of 12 – 15 years who were sampled by using multistage sampling technique. The sample consisted of only level two J.H.S. students in order to maintain consistency. Chi-square test of independence was used in testing the research hypothesis to determine relationships between the independent variables (Household characteristics) and the dependent variable (academic performance).

The results of the study indicated that, there was no significant relationship between sex of household head, economic background of pupils, household size and the level of education of household head as independent variables and academic performance of pupils (p = 0.06, 0.89, 0.75, 0.71 respectively). The findings of this study provided evidence that household size and the other household characteristics indicated no significant impacts on academic performance of pupils. The study recommends that further studies be carried out to include other household factors.

# TABLE OF CONTENTS

Title	Page
DECLARATION	i
DEDICATION	ii
ACKNOWLEDGEMENT	iii
ABSTRACT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background to the study	1
1.2 Statement of the Problem	5
1.3 Research Questions	10
1.4 Research Objectives	
1.5 Research Hypotheses	
1.6 Significance of the study	12
1.7 Justification of the study	
1.8 Limitations of the Study	13
1.9 scope of the study	13
CHAPTER TWO	14
REVIEW OF LITERATURE	14
2.1 Introduction	14
2.2 Definition of concepts	14
2.3 Relevant literature	17
2.3.1 Household size and academic performance	17
2.3.2 Performance of students in female-headed and male-headed hou	ıseholds 21
2.3.3 Economic status of household head and academic performance	of pupils 24
2.3.4 Household education and academic performance of pupils	30

2.4 Theoretical Framework	32
2.4.1 System Theory	32
2.4.2 Bloom's Sub Environment Model	33
2.4.3 Social Capital Theory	34
CHAPTER THREE	37
RESEARCH METHODS Error! Bookmark	not defined.
3.2. Source of data	37
3.2.1 Secondary sources	37
3.2.1 Secondary sources	38
3.3 Design of social survey	38
3.3.1 Target Population	38
3.3.2 Sampling method and size	38
3.3.4 Data processing	40
3.4 Ethical issues	41
CHAPTER FOUR	43
DATA ANALYSIS AND PRESENTATION	43
4.0 Introduction	43
SECTION A: Socio-demographic Background of respondents	43
4.1.1 Sex Distribution of Respondents	
4.1.2 Age Distribution of Respondents	
4.1.3 Ethnicity of Respondents	
4.1.4 Religious Affiliation of Respondents	46
4.1.5 Sibship size of study Participants	46
4.2 Academic Details of Pupils	47
4.2.1 Person who pays pupils school fees	47
4.2.2 Missing school and number of missed times	47
4.2.3 Getting help with homework	48
4.2.4 Performance of Pupils on Four Selected Subject	49
SECTION B: Household Characteristics	51
4.3.1 Age of Household Head	52
4.3.2 Relationship to the Head of Household	52
4.3.3 Marital Status of Household Head	53
4.3.4 Highest Level of Education of Household Head	54

4.3.4 Occupation of household heads	55
4.3.5 Dwelling type and owner of dwelling	55
4.3.6 Economic background of household	57
SECTION C: Relationship between household characteristics and academic	
performance	57
CHAPTER FIVE	66
SUMMARY OF FINDINGS, CONCLUSION AND RECOMENDATIONS	66
5.1 Summary of Findings	
5.2 Conclusion	
5.3 Recommendation	70
REFERENCE Error! Bookmark not define	ed.
APPENDIX A	76
Household Structure and Academic Performance of Pupils in Junior High School in	
Manhyia sub-Metro of Kumasi.	77
Pupils' Questionnaire	77
APPENDIX B	
Chi-square Test Results	81

# LIST OF TABLES

Table		Page
Table 1.1	Trends in Gross Enrolment Ratios in Basic Schools 2008-2010	7
Table 1.2	Trends in BECE Pass Rate, 2009-2011	8
Table 4.1	Sex distribution of Pupils	44
Table 4.2	Age distribution of Pupils	45
Table 4.3	Frequency Table for Pupils Ethnicity	45
Table 4.4	Participants Religious Group	46
Table 4.5	Respondents number of siblings	46
Table 4.6	Respondents self report on who pays fees	47
Table 4.7	Crosstab of getting help and who provides help with home work	49
Table 4.8	Mean and Standard Deviation on Four Test Scores	50
Table 4.9	Academic Performance of Pupils	50
Table 4.10	Crosstab of head and gender of household head	51
Table 4.11	Age of households heads	52
Table 4.12	Frequency table for relationship to household head	53
Table 4.13	Marital status of household head	53
Table 4.14	Household size of pupils	54
Table 4.15	Highest level of education of household head	55
Table 4.16	Occupation of household head	55
Table 4.17	Owner of dwelling	56
Table 4.18	Economic background of household	57
Table 4.19	Relationship between family size and pupils' academic performance	60
Table 4.20	Relationship between household head and pupils' academic performance	62
Table 4.21	Relationship between economic background and pupils' academic performance	63
Table 4.22	Relationship between household head level of education and pupils academic performance	' 65
Table 4.23	Results indicating significance of tested Hypotheses	65

# LIST OF FIGURES

Figure		Page
Figure 1.0	Conceptual model of the relationship between household structure and children's academic performance	35
Figure 4.1	Participants self report data on ever missing school	48
Figure 4.2	Respondents self reported place of dwelling at the time of survey	56



# LIST OF ABBREVIATIONS

**ADEA** - Association for the Development of Education in Africa

**EFA** - Education for All

**UBE** - Universal Basic Education

MDGs - Millennium Development Goals

JHS - Junior High School

SHS - Senior High School

**FCUBE** - Free compulsory Universal Basic Education

**CSPSS** - Computerized School Placement into Secondary school

WAEC - West Africa Examination Council

**BECE** - Basic Education Certificate Examination

GSS - Ghana Statistical Service

GLSS - Ghana Living Standard Survey

X<sup>2</sup> - Chi-square

PHC - Population and Housing Census

**ES** - Economic status

# **CHAPTER ONE**

## INTRODUCTION

# 1.1 Background to the study

Education has remained a social process in capacity building and maintenance of society (Adepoju & Fabiyi, n.d). Though education is not enlisted as one of the three basic needs, it is equally important and necessary for the progress of a nation and the enrichment of society in general. A country's literate population is its asset. This has led to many government-aided educational programs and government grant to schools (Education Sector Report 2010)

Basic education gives fundamentals of learning while we specialize in fields of our interest during degree courses. But education does not end here. It is a lifelong process. Self-learning begins at a point where institutional education ends.

Warsaw conference (2009), organized by the International Consultative Forum decided to redefine national approaches to basic education and recognized it as an indispensable instrument for individual empowerment in the emerging information-based society. It adopted a framework of action to update basic education and extend its availability to all people. The framework recommends the need to promote effective partnership between schools, households, communities and political authorities.

The meaning of basic education has broadened after the World Declaration on Education for All (EFA) to meet basic learning needs. This was the prelude to the launching of the

Universal Basic Education (UBE) introduced in the Millennium Development Goals (MDGs). This is to ensure that children of school going- age must be in school to acquire the needed skills and knowledge that will serve as a foundation for basic education. A universally subscribed goal is that, 'by 2015 all children have access to complete free and compulsory basic education of good quality' (Declaration of World Education Forum, Senegal 2000).

Obayan, (2000) describes basic education as that level, type and form of learning needed to build firm root for literacy and numeracy, to inculcate basic life skills and more importantly consolidate the skills of learning how to learn.

However, the problems identified in the implementation of this policy included lack of infrastructure, qualified teachers and household issues. These factors may affect the academic performance of students.

As a step towards a long term solution to Africa's education problem, the United Nations system-wide special initiative on Africa is planning a major emphasis on facilitating basic education for all African children. President Abdou Diouf of Senegal told a meeting of the Association for the Development of Education in Africa (ADEA) in 1997 that it only through education that the continent and its sons and daughters would be able to meet the demands and challenges of the 21<sup>st</sup> century.

Ghana like many other countries around the world has over the years sought to improve its educational system by introducing reforms and making projections based on the educational needs of the country. The scope includes six years primary and three years Junior High School (JHS).

The Education Act 778 of 2008 seeks 'to provide for the establishment of an education system intended to produce well balanced individuals with the requisite knowledge, skills, values, aptitudes and attitudes to become functional and productive citizens for the total development and the democratic advancement of the nation and for related matters.

The educational reforms of 1987 in Ghana also sought to improve the educational system and to cater for all potential talents after general studies at the basic level. The student may either continue at Senior High School (SHS), Technical institute or take to apprenticeship course in any trade.

Again in 1995, the Free Compulsory Universal Basic Education (FCUBE) was introduced to provide good education for children of school-going age in Ghana at basic education level – primary and JHS. The FCUBE is to strengthen the UBE program and to improve teaching and learning particularly in public basic schools thereby reducing the poor academic performance.

However, children's enrolment is based on a complex mix of factors which include the educational level of parents (particularly mothers), the ability to pay cost of schooling and the type of households. In some cases, the likelihood of a child's enrolment is an outcome of the different ways in which households are organized (Hashim, 2005).

It is generally accepted that the quality of family interactions has important associations with children's and adolescents' academic motivation and achievement, and with young adults' eventual educational and occupational attainments. Kellaghan et al (1993), claim for example, that the family environment is the most powerful influence in determining students' school achievement, academic motivation, and the number of years of schooling

they will receive. Similarly, Coleman (1991), states that parents' involvement in learning activities has substantial emotional and intellectual benefits for children. He observes, however, that because supportive and strong families are significant for school success, teachers confront increasing challenges as many children experience severe family disruption and upheaval. Although it is acknowledged that households are perhaps the most substantial influence on children's school success, it is not always clear which family influences are the most important. In addition, research findings are inconclusive about the extent to which relationships between family interactions and academic performance are independent of a child's family background and family structure. A household may be structurally intact or broken. A broken household is not structurally intact for various reasons such as death, separation, divorce and neglect of a parent.

However, household heads play important roles in the growth and development of their children. The type of parent in the household as well as the relationship between the parents is strongly linked to a child's academic performance and wellbeing.

Students at Junior High School level are often marked by changes in school context, family relation and developmental processes. The academic performance of children in junior high school level and the type of household structure are the main focus of this research

There is no way in which household heads can evade having a determining effect on their children's personality, character and competence (Baumrind, 1979). The functions of households greatly influence how children develop (Arendal, 1997).

One key factor for academic performance is the structure of the household of the pupil. Gottfried et al (1998), found in their longitudinal study of academic intrinsic motivation, that home environment was significantly related to academic intrinsic motivation beginning in childhood and lasting through early adolescence.

Also, Wentzel (1998), examined how the home environment and other factors influence classroom motivation. The result of this indicated that parent support, a concept related to warmth, was a positive predictor of school- related interest and goal achievement.

Household structure plays an important role in children's academic achievement. The Coleman findings indicated that, school-level differences had little impact on variation among individual children in terms of their academic success. This set the pace for added effort in investigating family background and its impact on academic success for children (Coleman, Campbell, Hobson, McPartland, & Mood; 1966). Household setting and background are key to a student's academic performance and consist of factors such as socio-economic-status of the household, sex of household head and neighborhoods (Marjoribanks, 1996).

# 1.2 Statement of the Problem

Basic education in Ghana is tuition-free and compulsory. It starts from kindergarten to JHS. The structure consists of two years kindergarten, six years primary and three years JHS. After basic school, students enter SHS or Vocational /Technical schools for a three year course through Computerized School Placement into Secondary Schools (CSPSS).

Long before the Millennium Development Goals (MDGs), past governments in Ghana have recognized basic education as a fundamental building block of the economy. The target for the MDG 2 is to achieve Universal Access to Basic Education by 2015. Since 2002, conscious efforts have been made by government of Ghana to integrate the MDG 2 into the development policy frameworks.

In Ghana, there have been several educational reforms and new policy measures towards making basic education accessible to all. Such policy measures include;

- Capitation Grants for Basic Schools
- School Feeding Program
- Free textbooks and uniforms
- Upgrading Training Colleges to Tertiary level
- Construction of new classroom blocks to replace "schools under trees".
- Introduction of Information and Communication Technology at the basic level
- Giving incentives to teachers posted to deprived areas.

In addition, spending on basic education received the highest amount of 47.2% of the total government spending followed by spending in poverty reduction 19% and primary health care 18%. Expenditure on the School Feeding Programme and the Capitation Grant constitute a huge part of the basic education share (NDC Manifesto, 2009). The major aim of these interventions is to increase and sustain attendance from the poorest households to achieve Universal Basic Education.

The results of these policy interventions have been encouraging. There is a significant improvement in enrolment at the basic school level in response to the policy measures implementation by the Education sector.

**Table 1.1** Trends in Gross Enrolment Ratios in Basic Schools 2008-2010

Level of education	2008	2009	2010
Kindergarten	89.9%	92.9%	97.3%
Primary	95.2%	94.9%	94.9%
JHS	78.8%	80.6%	79.5%

Source: Education Sector Performance Report, 2010

The compelling evidence is that, reducing considerably the cost to parents of sending children to school, greatly increase access to primary schooling (Appleton et al., 1996; Merton, 1998).

Despite gains in school enrolment, concerns have been raised about quality of education in Ghana. According to West Africa Examination Council (WAEC) reports from the past three years, almost half of the total number of candidates who sat the Basic Education Certificate Examination (BECE) failed to get the required grade to enter SHS.

The World Development Report (2000/2001) indicated that the biggest problem besides lack of food is lack of power directly related to lack of knowledge. Worldwide, almost one billion are illiterate because they had no basic education or because the quality was too low.

WAEC reports 2009, 2010 and 2011 indicated the following figures:

Table 1.2: Trends in BECE Pass Rate, 2009-2011

Year	Number of candidates	Passed	Percentage
2009	338,292	210,282	62.16%
2010	350,888	172,359	49.12%
2011	375,280	176,128	46.93%

Source: Education Sector Performance Report, 2010

This indicates a falling trend in the standards of education, in especially at the basic level, which is the most important stage of a child's formative years. This may be a reflection of either poor teaching and learning or low investment in education by stakeholders including household heads. This therefore calls for an investigation.

The situation at the district level especially, Kumasi metropolis was not very different. The BECE results table indicates that the number of pupils who qualified for placement into SHS in Kumasi metro were 53%, 49% and 55% for 2008, 2009, and 2010 respectively.

A breakdown of results according to Sub Metros indicated that the number of pupils who qualified for placement into SHS within the Manhyia Sub Metro of Kumasi were 49% 54% and 56% for 2008, 2009 and 2010 respectively (Kumasi Metro Education Office, 2010).

Student's academic performance is associated with their background and especially, to those activities which occurred in their homes. There is also enough evidence that the activities which go on in students' homes are linked to the social status of their parents and that many working class parents do not succeed to produce even minimum level of stimulation for their children intellectual facilities (Raven, 1977).

There are varieties of factors which may be responsible for poor and unsatisfactory academic performance of students. These factors include; ineffective teaching, absenteeism, lack of basic educational facilities, illiteracy of parents, household size, lack of parental care, unfavorable environment inside the school and home. Economic hardship in low income households is likely to require pupils in JHS to work long hours and take responsibility for younger siblings. As a result of these time consuming activities pupils are likely to have limited time for studies.

Secondly, absence of one parent is detrimental to academic performance because female headed households have limited access to the material goods that promote higher academic performance of students.

At the basic level of education, poor academic achievement not only limits one's progression further in school but also negatively affects an individual's future income and productivity (Hanushek & Pace, 1995). The recognition of the problem of poor academic performance has not translated into the development of more effective actions to improve education quality and policies that will improve the chances of children in different households to do well in school.

Since household heads play crucial role in children's education, this research examines the relationship between academic performance and household structure of JHS students.

# 1.3 Research Questions

The study was guided by the following research questions:

- 1 Does household size influence academic performance?
- 2 Do students in male-headed households perform better than those in female headed households?
- 3 Is there a relationship between the economic background of a household and academic performance?
- 4 Is there a relationship between the level of education of household head and academic performance?

# 1.4 Research Objectives

The general objective of the study was to determine the relationship between different household structures and academic performance with special focus on students at junior high school level.

Specifically the study sought to;

- 1. Find the relationship between household size and academic performance of pupils
- 2. Identify the differences in the academic performance of students in male-headed household and female-headed household.

- Find the relationship between economic background of a household and academic performance pupils
- 4. Determine the relationship between household head's level of education and academic performance of pupils.

# 1.5 Research Hypotheses

In the light of the problem and the objectives of the study, the following null hypotheses were tested at 0.05 level of significance;

KNUST

**H1:** Pupils from small household size will perform better than pupils from large household size.

**H2:** Sex of household head will significantly be related to academic performance of pupils.

**H3:** Household economic background of pupils will significantly relate to academic performance.

**H4:** Household heads level of education will significantly relate to academic performance of pupils.

# 1.6 Significance of the study

Many JHS students cannot develop to their full potentials due to the nature of their household. This study sought to address the issue of poor academic achievement of these young adolescents and the type of household they come from.

Also the study will be useful to JHS teachers and other stakeholders of education in their attempt to find solutions to the poor academic performance of JHS students in particular and the falling standard of education in Ghana in general.

The study would be beneficial to policy makers, nongovernmental organizations, the Ministry of Education and the Ministry of Gender, Children and Social Protection in their attempt to investigate issues of poor performance of JHS students. The research will serve as an additional source of reference for future research.

# 1.7 Justification of the study

The poor academic performance especially, the BECE results at both national and district levels require investigation to facilitate quality basic education delivery. This study will assist other stakeholders of education to develop an action plan to improve upon academic performance especially at the BECE level.

Literature on the relationship between household structure and academic performance of pupils in Ghana is uncommon. The findings of this research will serve as reference material for future studies.

# 1.8 Limitations of the Study

This study had noteworthy limitations. One of such limitations pertained to the nature of the design of the study. The data was cross-sectional. A longitudinal study in Math English, Social Studies and Integrated Science scores and household characteristics would have given a fuller picture of how household structure impacted academic performance.

Another limitation was the limited number of household possessions that were used to analyze the economic background of pupils. Adding one or more household possession might affect the findings of the results. Thus future research should include a more comprehensive list of household possessions, including household items that have been shown to affect academic performance.

Also most of the respondents (pupils) were not comfortable with the use of face-to-face primary data collection tool (Researcher administered questionnaire). Most of the respondents initially felt reluctant to give the actual household background information, especially questions that require the economic background of household head. However, with assurance of anonymity and confidentiality, the participants felt comfortable to contribute.

# 1.9 scope of the study

The study covered the various household characteristics in relation to the academic performance of pupils in Manhyia-Sub Metro of Kumasi Metropolitan Area. The focus of this study was limited to BECE results between 2009 and 2011.

## **CHAPTER TWO**

## **REVIEW OF LITERATURE**

# 2.1 Introduction

This chapter consists of relevant ideas from books, journals, articles and reports in relation to the research questions and objectives. This makes it possible for the researcher to combine different works together in order to have ideas and to find out the existing body of knowledge related to this study. Going through literature acquaints the researcher with the methodologies that have been used by others to find answers to research questions similar to the research being undertaken.

This chapter is divided into three sections. The first section provides the definitions of some concepts in this study. The second section covers relevant literatures that are related to the objectives of the study. The third section is relevant theories for the study.

# 2.2 Definition of concepts

Like most works of this kind, it could not have been understood without operational definition of certain concepts. With regards to this work, the following are the concepts and their definitions.

# Household

There is usually, a little confusion about what is meant by family structure and household structure. There is a great dissimilarity between the two. Family members are group of

people who are related by blood, marriage and adoption (Gyekye, 2001). However, household is a group of people who share the same housekeeping and eating arrangements (Nukunya, 2003).

Household is defined by Ghana Statistical Service (GSS) as a person or a group of persons who live together in the same house or compound and share the same house keeping arrangement (GSS, 2012).

# Household structure

Household structure can be described as the composition of a household. In general, a household may consist of a man, his wife, children and some relatives or a house help who may be staying with them (GSS, 2012).

It is important to note that members of a household are not necessarily related by blood or marriage because non relative (house help) may form part of a household.

# Household head

A household head is a male or female member of the household who has economic and social responsibility for the household and recognized as such by other household members (PHC, 2010).

# Household Size

Household size refers to the number of persons in a household. In this study households that were less than or equal to five were categorized as small household size. Those that were more than five were considered as large household size.

# Economic Background

Economic background in this study was measured by the possessions or assets of the household. Such assets included ownership of the following: car, motorbike, bicycle, mobile phone, computer and internet. The economic background of household was further categorized into three levels, with households possessing all the six (6) items belonging to or classified as high economic background households. Households which possessed three (3) or four (4) of the listed items were also classified as medium economic background households, while households which possessed two (2) or one (1) of the six items classified as low economic background households.

# Academic Performance

Academic performance is the ability of students to study and remember facts and being able to communicate knowledge verbally or down on a paper. (www.wikianswer.com).

The academic performance in this study refers to the pupil's marks in English Language, Integrated Science, Mathematics and social studies.

# **Basic Education**

Basic Education refers to two years of kindergarten education, six years of primary school education and two years of Junior High School education (Ministry of Education 2003).

# Level of Education

Level of education refers to the highest level of formal school that a person ever attended or was attending (PHC, 2010). This information was obtained from the household heads. The level of education was of household heads were categorized into low (Basic Education), medium (Secondary) and high (post secondary).

# 2.3 Relevant literature

# 2.3.1 Household size and academic performance

Studies conducted on educational attainment of children and the size of the household indicated that children from large household size attain less schooling on the average than those children with few brothers and sisters. This negative effect of household size on educational attainment persists after the socioeconomic characteristics of the household are statistically controlled (Slake, 1989).

These studies assumed that large households spread their resources; economic, cultural and effectiveness more thinly than do families with fewer children. This suggests that parents who have many children invest less money, time, emotional and psychic energy, and attention on each child (Blake, 1989; Golemen, 1988).

However Blake (1989) hypothesizes that the negative effect of household size on educational attainment in United States (USA) is weaker among Catholics than among Protestants because the Catholic community extends various kinds of support to its members such as family-based tuition in its parochial school and parish network that distribute used- clothing for children. Community support reduces the negative effect of household size because the dilution of resources from the nuclear family is countered by resources from an external source the (community).

Cole and Hoffer (1987) reported that among students attending Catholic schools, household size is only weakly related to school achievement. Blake also found that among U.S. Jews, the effect of family size on educational attainment is weak. She attributed this to the value Orthodox Judaism placed on large families and extended periods of schooling.

Powell and Steelman (1993) and Van Ejick and DeGraaf (1995) argued that children's attainment depends on inputs of time and money from their parents: the more children there are in the family the less of both inputs. These inputs are not money alone, but other essential things like time, attention, resource dilution and so on. However, Booth and Kee (2006) confirmed that children from larger families have lower levels of education. Research on the effect of sibling's size and position has been based on a theory of the allocation of parental resources as presented in Becker (1981) and Spauta and Paulson (1995) confirmed that differences were found in birth order and family size of adolescent's achievement in academic.

The relationship between family size and children's educational outcomes is conventionally addressed in what is known as the "Quantity-Quality" model (QQ) (Becker, 1960; Becker and Lewis, 1973; Becker and Tomes, 1976). Becker's QQ model is a model of investment where households decide the level of resources allocated per child (quality). The model assumes these investments lead to higher levels of child quality but the direct implication of the model is a trade–off between child investment and number of children in the family.

Studies investigating the impact of family structure on academic achievement show that family structure such as the number of children has a resource dilution hypotheses where the material resources and parental attention are diluted with additional children in the household (Bachman, 2002). However, Marks (2006), in a cross-country study testing the impact of family size on academic achievement, found that in almost all countries the effect of family size declined by between a quarter and a half when taking into account a family's socioeconomic background (Marks, 2006). Marks concluded that much of the association between household size and educational outcomes is simply due to the correspondence between large families and lower socio-economic status (Marks, 2006).

Smaller household size has been linked with higher academic achievement of the students. Students with fewer siblings are likely to receive more parents' attention and have more access to resources as compared to those children whose families are large in size. The additional attention and support leads to better school performance. The size of families has some effects on academic performance of students. Students who belong to larger families tend to have lower levels of achievement and lower levels of secondary graduation, on average than children who belong to smaller families. The reality is that

parents of many children cannot afford to divide quality time with their children. Value added quality time is hard to set aside to supervise the academic aspects of the children. Conversely, parents with two to three children can afford the time to increase their children academic potentials because their time is only shared with less number of children (Eamon, 2000; Majoribanks, 1996).

Nutall et. al. (2000) in their study on family size and academic achievement selected a sample of 306 girls and 247 boys from the Boston area. The sample was divided into small family (two kids) and large family (5+ kids) groups. Academic achievement was examined using school records and IQ tests. Nutall et al concluded that boys from small families tended to have better academic achievement than boys from large families because boys in the larger families are probably more influenced by peer groups who tend to have anti-academic values.

In the empirical literature, however, the negative influence of family size on child outcomes has been often studied but the direct influence on investments in children has received little attention. Often scholastic achievements (Rosenzweig & Wolpin, 1980a; Blake, 1981; Hauser and Sewell, 1986; Hanushek, 1992; Hill and O' Neill, 1994; Black, Devereux and Salvanes, 2005; Conley and Glauber, 2005) or cognitive development (Belmont & Morolla, 1973; Wolfe, 1982) are used as measures of child quality.

The argument is that parents of many children cannot afford to divide quality time with their children.

#### 2.3.2 Performance of students in female-headed and male-headed households

First, children in non-traditional household structures are less likely to grow up with access to pro-educational resources (McLanahan & Sandefur, 1994). The selection argument finds some support in recent studies, such as Dew's (2009) study examining the mechanisms linking household financial assets and divorce; fewer assets is related to a higher probability of divorce.

Many studies have revealed that children who grow up in single-parent households are less likely to complete high school or even attend college than the children who grow up with both parents (Amato, 1987).

Garfinkel and Melanahan (1986) asserted that one reason why children from single-parent households are less likely to finish high school is the precarious economic position of their families. Mother-only households are more likely than other families to be poor, and their poverty is more extreme than that of other groups (Bane, 1983).

Children growing up in non-intact households are more likely to drop out of school (high school). This disengagement from school is associated with the low education aspirations, since high aspirations are a critical factor predicting education achievement (Sewell & Shah, 1968).

In a recent summary of the literature on parental time, Gauthier, and Monna (2008) find few differences in the parental time allocation patterns of cohabitating and married parents, but multiple studies show that single or divorced parents spend less time with their children as compared to biological two parents household. The in-school experience of children from non-traditional homes may not be very different from that of their

classmates from traditional families, but after school these youth may experience divergent outcomes depending upon the level of parental supervision, exposure to peers, skill-building opportunities, and time with household members that they experience (Astone et al., 2007). Astone et al. (2007) also indicated that the effects of lower levels of parent supervision are likely to be most deleterious to youth in poor, urban areas because of the high prevalence of violence and crime in these areas.

Another way in which non-traditional household structure may be negatively related to educational outcomes is that non-traditional household structures are more likely to be characterized by instability or conflict. Instability can disrupt a child's schooling success in a number of ways, including causing emotional distress and high residential mobility (Raley, Frisco & Wildsmith, 2005). Some US regions seem to recognize this probable distress on children: for instance, in Utah, divorcing parents with children under 18 are required to take a divorce education class that focuses on the emotional well-being of the children, and how to help them cope with their parents' divorce (Schramm, 2006).

Regarding the linkage between household instability and residential mobility, Schramm (2006) shows that almost all divorces result in at least one geographic move approximately 35 percent of divorces result in two geographic moves. For instance, the average American child in a two-parent household experiences 1.5 residential moves before age 15, while the average child from a divorced family moves 2.5 times (Schramm 2006). Residential moves can disrupt peer and student-teacher relationships for youth, resulting in poor educational outcomes (Langenkamp, 2009).

When there has been dissolution of a parental union, non-traditional household structures may be characterized by conflict over both the temporal and financial resources dedicated to the child. For instance, Forry et al. (2010) find that, with higher conflict after separation, both fathers and mothers are less involved in their child's education. According to these scholars, children of non-traditional homes would fare better in school in societies with more social support for alternative families. Other scholars are less optimistic and suggest that alternative family forms are inherently unstable for example, (Popenoe, 1993).

Using the 2006 Continuous Household Survey of Uruguay, which provides information on the timing of family transitions, we find strong evidence that being raised in a non-traditional family is causally linked with students' drop-out and falling behind in school. The evidence shows that boys are especially vulnerable to negative educational influences of non-traditional households. Differential responses to shocks (Sax, 2006) or relatively less attention from (single) mothers (Gauthier and Monna, 2008) may explain why boys are faring worse than girls. We suspect, however, that the gender gap is likely because boys in non-traditional homes feel more pressure to exit the school system for low wage work, rather than hazard another six or more years of school.

Single parenthood is associated with variety of stresses, poverty is foremost. Children raised in mother only families are less likely to do well at schools, are more likely to be implicated in antisocial activities and have poorer occupational opportunities than offspring of intact families (McLanahan, Astone and Marks, 1991).

Many authors have documented differences between children raised in father-absent (FA) and father-present (FP) homes (Balcom 1998; Biller 1970; Chapman, 1977; Daniels1986; Downey, 1994; Downey, Ainsworth-Darnell, & Durfur, 1998; Fry & Scher, 1984; Milne, Rosenthal and Ginsburg, 1986). Research has shown that FA children graduate from high school and attend college at a lower rate (Sigle-Rushton & McLanahan, 2004), perform worse on standardized tests (Bain, Boersma, and Chapman, 1983), and are more likely to use drugs (Mandara & Murry, 2006) than children from FP homes. Research has also shown that growing up without a father seems to have a greater negative effect on boys as compared to girls (Mandara & Murry; Sigle-Rushton & McLanahan, 2004).

# 2.3.3 Economic status of household head and academic performance of pupils

Filmer and Pritchett developed an asset index which included household possessions and household structural characteristics and classified them into different wealth groups (poor, middle, rich) based on the asset index values. The advantage of an asset index is that it can be used to evaluate the distribution of educational outcomes across different socioeconomic status groups within countries (Filmer & Scott, 2008).

Economic resources such as income and assets, which are indicators of parent and household socioeconomic status, influence youth's academic achievement. Household income and wealth have been shown to be associated with improvements in children's education in developing countries, including Sub-Saharan Africa (Filmer & Pritchett, 1999, 2001; Glick & Sahn, 2000, 2009; Lincove, 2009; Zhao & Glewwe, 2010). Decline in income has been shown to negatively affect school enrollment of children in

developing countries (Grimm, 2010). Research has also shown that changes in youth's levels of educational aspiration or expectation are influenced by household socioeconomic status (Hossler, Schmit, and Vesper, 1999; Reynolds and Pemberton, 2001; Valadez, 1998).

One way asset ownership, particularly liquid assets, influence youth academic achievement is through a family's ability to purchase school materials (for example, text books and other needed supplies) that can facilitate learning both in and outside of the classrooms. For instance, research has shown positive association between household computer ownership and children's academic performance (Schmitt and Wadsworth, 2006) and school enrollment (Fairlie, 2005).

The key question is why assets, particularly liquid assets, have such a powerful impact on academic achievement? Arguably the most widely used perspective on this question is a sociological one. According to Teachman (1987), parents use material and non-material resources to create a conducive atmosphere at home that fosters academic skills. Parents allocate resources to children that may influence their education attainment and achievement. Teachman (1987) further states that educational resources were more likely to be available in the homes where parents were not only educated but also financially stable.

Coleman (1990, 1998) has offered three capitals that influence a child's education: financial, human and social capital. These are interrelated and a child requires all three to achieve in optimal growth. Parents who are educated (human capital) are assumed to hold

stable jobs (financial capital) and are more inclined to be communicative with their children in terms of their children's education (social capital).

It is also troubling that some parents in Ghana and other developing countries question the value and benefits of school for their children considering the additional costs and resources necessary (Buchmann, 2000; Chant and Jones, 2005; Chowa, Ansong, and Masa, 2010; Laird, 2002).

Studies have again been found that socio-economic status influences students' achievements (Jeynes, 2002; Eamon, 2005; Hochschild, 2003). Students who have a low socio-economic status show poor result and are more likely to leave the school (Eamon, 2005; Hochschild 2003). It is believed that low socio-economic status has significant negative affects on the academic achievement of the students because low socio-economic status is the obstruction to access to vital resources and creates additional stress at home (Eamon 2005; and Jeynes 2002). Many research studies have shown that the socio-economic status is a factor responsible for the academic attainment of the students.

Morakinyo (2003) found that there is a relationship between socio-economic status and academic achievement of the students. White (1986) in a Meta analysis of 620 correlations coefficient from 100 students, describes that there is a definite relationship between socio-economic status and academic achievement of the students. He noted that the frequency obtained correlation ranged from 0.10 to 0.70 which is positive relationship. It means that if one factor is increased the other also increases. It came to light that those children whose socio-economic status is strong show better academic

performance and those with poor socio-economic status show poor and unsatisfactory academic performance.

There are also recent studies that support the idea that family structure is causally related to educationally relevant resource deficiencies. One study, examining the perception of childhood parental divorce among young Israeli adults, finds that most of their interviewees described an economic decline following divorce (Eldar-Avidan et al., 2008). A loss of economic resources in the home may directly impact a student's educational fortunes, perhaps most notably when the student feels pressure to generate additional income for the home. Students who are able to work and help provide for their family are likely to do so at a loss to their academic pursuits. The decline in parental resources after divorce does not appear to be limited to financial assets. The in-school experience of children from non-traditional homes may not be very different from that of their classmates from traditional families, but after school these youth may experience divergent outcomes depending upon the level of parental supervision, exposure to peers, skill-building opportunities, and time with family members that they experience (Astone et al., 2007). Astone et al. (2007) find that the effects of lower levels of parent supervision are likely to be most deleterious to youth in poor, urban areas because of the high prevalence of violence and crime in these areas.

Alexander, Entwisle and Bedinger (1994) found that parents of moderate to high income and educational background held beliefs and expectations that were closer than those of low-income families to the actual performance of their children, Low-income families instead had high expectations and performance beliefs that did not correlate well with their children's actual school performance. Alexander et al also suggested that the

parents' abilities to form accurate beliefs and expectations regarding their children's performance are essential in structuring the home.

In the United States (US), the gaps in achievement among poor and advantaged students are substantial (Rowan et al., 2004). Through multiple studies, The U.S. Department of Education (2001) has indicated results that demonstrated that student and school poverty adversely affected student achievement. Again, the U.S. Department of Education (2001) found the following key findings regarding the effects of poverty on student achievement in a study conducted on third through fifth grade students from 71 high-poverty schools that, the students scored below norms in all years and grades tested; students who lived in poverty score significantly worse than other students; schools with the highest percentages of poor students scored significantly worse initially, but closed the gap slightly as time progressed. Numerous individual studies have found similar results (Rowan et al., 2004).

Students from low income families consistently, regardless of ethnicity or race, score well below average (Bergeson, 2006). For example, in one study, 43.5% of low-income students did not successfully meet any of the required subject area assessments while only 13.2% of low-income students met all of the required subject area assessments (Bergeson, 2006).

Similarly, children who lived in persistently poor families scored 6 to 9 points lower on the various assessments than children who were never poor" (Smith et al., 1997: 164). The extent of poverty has a significant effect. Children from very poor households with income below50% of the poverty line scored 7 to 12 points lower than children from

near-poor households while children in poor households with income between 50 to 100% of poverty line, scored 4 to 7 points lower (Smith et al., 1997). Garfinkel and Melanahan (1986) asserted that one reason why children from single-parent families are less likely to finish high school is the precarious economic position of their families. Mother-only families are more likely than other families to be poor, and their poverty is more extreme than that of other groups (Bane, 1983).

Buncan and Hoffman (1985) posited that even among single-parent families living above the poverty line, income insecurity is a common place. Previous research into the intergenerational effects of family disruption indicates that income accounts for between 30 and 50 percent of the difference in high school among children from intact and non-intact families (Bumpass 1984). The occupation and source of income (welfare, wage and child support) received by impoverished households appears to affect the educational attainment. For example mothers who work more intellectually stimulating jobs often provided their children with more stimulating educational experiences at home (Bradely & Corwyn 2000).

Furthermore the source of income received from poor households affects children mental development. Research shows that children on welfare do not perform well academically as children who live on child support payments. The study speculates that this may be due to the lack of motivation on the part of parents who do not work often have (Powers, 1996).

The major influence on achievement is a student's home atmosphere; how much reading material is available, how the parents feel about education, what they want for their

children, what they do for and done with their children, how and how much they talk with their children and how stable the family is. Both rich and poor families can create a climate that foster learning. Even though family background does have a strong relationship to achievement, it may be how parents bring up their children and not the parent's occupation, income, or education that really make the difference (White, 1982).

#### 2.3.4 Household education and academic performance of pupils

Literature on academic achievement consistently has shown that parent/guardian education is important in predicting children's achievement (Klebanov, Brooks-Gunn, & Duncan, 1994; Haveman & Wolfe, 1995; Smith, Brooks-Gunn, and Klebanov1997).

The mechanisms for understanding this influence, however, have not been well studied. In general, family process models (Linver, Brooks-Gunn, & Kohen, 2002; Yeung, Linver, & Brooks-Gunn, 2002) have examined how parenting behaviors, such as the structure of the home environment, influence children's achievement outcomes. If a parent is not educated, he or she cannot provide sufficient cognitive stimulation for his or her child. This is a concern because cognitive stimulation is vital during the developmental period of the child (Corwyn & Brabley, 2002).

Corwyn and Bradley (2002) also found that maternal education had the most consistent direct influence on children's cognitive and behavioral outcomes with some indirect influence through a cognitively stimulating home environment.

Halle et al. (1997), using a sample of low-income minority families, also found that mothers with higher education had higher expectations for their children's academic

achievement and that these expectations were related to their children's subsequent achievement in mathematics and reading.

Research on parenting also has shown that parent education is related to a warm, social climate in the home. Klebanov et al. (1994) found that both mothers' education and family income were important predictors of the physical environment and learning experiences in the home but that mothers' education alone was predictive of parental warmth.

Likewise, Smith et al. (1997) found that the association of household income and parents' education with children's academic achievement was mediated by the home environment. The mediation effect was stronger for maternal education than for family income. Thus, these authors posited that education might be linked to specific achievement behaviors in the home (for example, reading, playing). Corwyn and Bradley (2002) also found that maternal education had the most consistent direct influence on children's cognitive and behavioral outcomes with some indirect influence through a cognitively stimulating home environment.

Peters and Mullis (1997) found that parental education had a significant effect on academic achievement. The mother's education level had a 20% higher affect than the father's education level on the academic outcomes of adolescents (Peters and Mullis, 1997).

Researches on status attainment have shown that high educational aspirations of parents are associated with high aspirations in children, and that this association accounts for a

significant part of the association between father's and son's educational attainment (Sewell and Shah, 1968).

Research show that the low academic achievement of one's parents often becomes cyclical and affects the child's education because they, like their parents | guardian before them, are also in poverty (Bradley & Corwyn, 2002).

KNUST

#### 2.4 Theoretical Framework

There are several sociological theories that can be used to explain studies concerning household structure and academic performance of children. The researcher used the System theory, the social capital theory and Bloom's sub-environment model for this study.

#### 2.4.1 System Theory

A useful way of thinking about a household and the influences it has on its members is by means of system theory (Minuchin, 1988; Sameroff, 1983). A system theory explains the existence of different parts which perform different functions in such a way that each part interacts and is interdependent on the other parts. The educational system has similar characteristics with other systems. Nwankwo (1984) and Zelvys (2004) describe a system as series of interrelated and interdependent parts such that the interaction of any part affects the whole system.

Children's development inevitably takes place in particular contexts, and for the vast majority of children the household or the family is the first and foremost important context for physical and psychological growth (Schaffer, 1996). Traditionally, the household is regarded as a permanent unit containing a married couple and their children (Schaffer, 1996).

Circularity of influence is one of the basic principles of systems theory. Within a system the pattern of influence is circular rather than linear. All components are mutually interdependent; a change in one has implications for all others. Statement such as A causes B are therefore insufficient because components affect each other in reciprocal fashion.

From this perspective, most attention has been given to the way in which the nature of the household is related to the child's progress, on the assumption that a stable household is likely to be associated with a satisfactory academic performance of the children.

#### 2.4.2 Bloom's Sub Environment Model

It was not until Bloom (1964) and a number of studies which examined the family and children's affective and academic outcomes that a school of research emerged to investigate the relationships between family influences and academic outcomes. Bloom defines family environments as the conditions, forces, and external stimuli that impinge on children. He proposes that these forces, which may be physical or social as well as intellectual, provide a network that surrounds, engulfs, and plays on the child. The Bloom model suggests that the total family context surrounding a child may be considered as being composed of a number of sub environments. If the development of particular characteristics, such as academic motivation and academic achievement, are to be

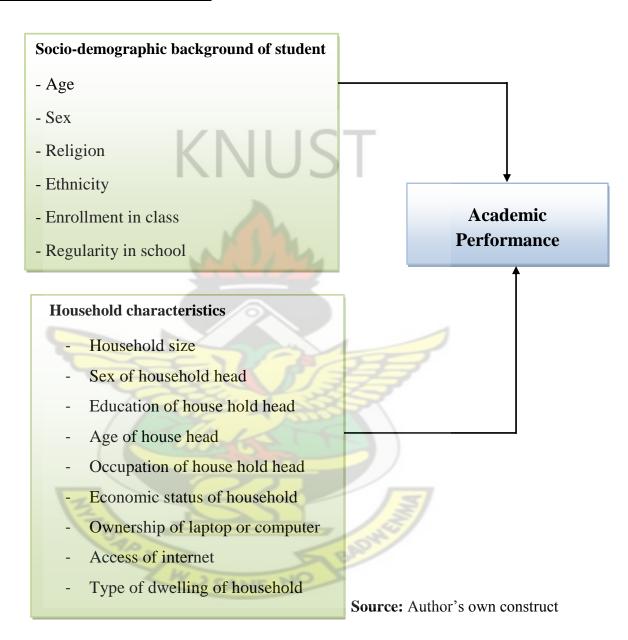
understood, then it is necessary to identify those sub environments that are potentially related to the characteristics. The analyses guided by the sub environment model indicate that it is possible to measure family influences that, when combined, have medium associations with children's academic motivation and large associations with their academic achievement.

## 2.4.3 Social Capital Theory

Coleman (1997) proposes that family influences can be separated into components such as economic, human, and social capital. *Economic capital* refers to the financial resources and assets available to families, whereas human capital provides parents with the knowledge resources necessary to create supportive learning environments for their children. In contrast, family social capital is defined by the relationships that develop between family members. It is through these relationships that children gain access to the economic, human, and cultural resources of their families. Similarly, Bourdieu (1998) suggests that children in families from various social status and ethnic/racial groups have differing degrees of access to those forms of cultural capital that support academic success. Bourdieu claims that within social groups, parents provide experiences that result in children developing similar tastes, preferences, academic motivation and preferences. Eventually, these attributes are related to social status and ethnic/racial group differences in academic and occupational outcomes. A number of theories have been developed to examine those parent-child interactions that provide children with differential access to family resources.

#### **Conceptual Framework**

Figure 1: <u>Conceptual model of the relationship between household structure and children's academic performance</u>



The conceptual framework establishes the relationship between household characteristics, the socio- demographic background of pupils (personal characteristics) and the academic performance of pupils.

Generally, pupils in JHS are mostly below age 18, they usually stay with either their parents or guardians in a particular household. A household may be male headed or female headed. Based on literature, regardless of the type of the household structure of pupils in JHS, there are some important household characteristics that can also account for the academic performance of pupils. Such factors include household size, household economic background, parents' education and sex of household head.



#### **CHAPTER THREE**

#### RESEARCH METHODS

#### 3.1 Introduction

The study examines the relationship between household structure and academic performance of students in selected JHS in Manhyia. This chapter describes the methods used by the researcher to collect data for the study. This is to enable the researcher identify the strength and weaknesses of the approaches for future studies. This chapter is divided into four sections. The first section describes the sources of data. The second describe the population, sampling method and sample size for the study. The third section covers methods of data collection. The fourth section deals with data processing and ethical consideration.

#### 3.2. Source of data

There are two major approaches to gathering information about a problem. Sometimes the information required is already available and needs to be extracted. However, there is information that needs to be collected. Based on these approaches to information gathering, data are categorized into secondary and primary data. Both of these sources were used in this study.

#### 3.2.1 Secondary sources

Data from secondary sources included literature from authors such as Babbie, (2005), Neuman, (2000) and Kumakpor, (2002). Other secondary sources included class

attendance register and terminal report booklets. Also student's continuous assessment sheet also be used in recording their performance in mathematics, English, Integrated science and social studies were also used. These are the main core subjects at the JHS level.

#### 3.2.2 Primary source

The primary source of data for the study was the social survey. A social survey is a data collection technique in which information is gathered from individuals (respondents), by having them respond to questions. Marsh (1982) describes social survey as a method of social research with three defining characteristics, its type of content, its form of the data and the method of analysis employed. One significant advantage of survey method is that it can be used to collect data that is a representative of a larger population. However social survey can be difficult to finance and time consuming.

#### 3.3 Design of social survey

#### 3.3.1 Target Population

The target population consists of all possible respondents the researcher is interested in studying. The main participants for this research include all JHS students between the ages of 12-15, who were currently enrolled in JHS in Manhyia sub- metro of Kumasi.

#### 3.3.2 Sampling method and size

Sampling is selecting a few respondents out of some larger grouping for study. Sampling allows the researcher to study a workable number of cases from the large group to derive findings that are relevant for all members of the group. To obtain a representative sample

for the study, a probability sampling technique was employed. Probability sampling is the general term for samples selected in accord with probability theory, typically involving some selection mechanism (Barbbie, 2005). Specifically this study used both simple random sampling to select schools and systematic sampling to select students.

The first stage of sampling processes involved the selection of schools for the study. The schools within the study area were grouped into two clusters based on students population in each school, that is cluster A and B. Cluster A was schools with higher population (above 600) and cluster B was schools with low population (below 600).

Cluster A consisted of 12 schools and cluster B was made up of 15 schools. The schools were numbered and placed in two different containers. One school was randomly sampled from each of the two clusters. In all, the two schools that were sampled were; St. Louis JHS and Afia Kobi JHS.

The second stage of sampling was the selection of pupils from the selected school using systematic sampling. First, the sampling frame of all Students in JHS 2 in the two selected schools was obtained from the head teachers of the schools. All the pupils on the list could be selected from the sampling.

To accomplish the systematic sampling, there is the need to get the sampling interval (k), which is the ratio of the number on the list to the sample size

$$K = \frac{popupation (list)}{sample size}$$

$$K = \frac{500}{100} = 5$$
  $K = 5^{th}$ 

After this stage, one pupil was selected from the first to the fifth on the list through simple random sampling. This was followed by every fifth position from the first selected number. In all 100 respondents were sampled. (50 from each selected school).

#### 3.3 3 Method of data collection

The main instrument used to collect data for this study was researcher administered questionnaire. This instrument was chosen due to the ages of the pupils as well as to achieve the objectives of the study. It was thought that students in JHS might find difficulties in reading and understanding the questions. One of the main advantages of this tool is that, it provides uniform information, which assures the comparability of data. Again the questions can be explained. It is less likely that a question will be misunderstood as the researcher can either repeat a question or put it in a form that is understood by the respondent. On the other hand the quality of the data depends on the quality of the interaction.

#### 3.3.4 Data processing

The data collected with questionnaire need to be processed and analyzed. Data processing is the translation of words into numbers. There are four steps in the processing of the data. They are; coding, editing, data entry and data cleaning.

#### Data Coding

This process aims at simplifying data entry and analysis. The first step in this process was to provide a coding frame, or the coding scheme. The scheme was then used to translate the responses in the questionnaire into numbers.

#### Data Editing

Editing was carried out during and after data collection. The purpose of this was to examine the data to find out whether all the questions have been answered correctly and that there were no inconsistencies in responses.

#### Data Entry

Data was entered into the Statistical Package for the Social Sciences (SPSS) Software (Version 16) by the researcher. Variables were defined in the variable view phase of the SPSS programme while data was entered into the data view of the software programme to create a data file.

#### Data Cleaning

Data cleaning involves eliminating errors in coding and transmitting the data into the computer. Since data processing errors are inevitable, the researcher paid much attention to the entry of data.

#### 3.4 Ethical issues

Ethics is the study of what is proper and improper behavior of moral duty or obligation (Reese & Fremouw, 1984). For social researchers, ethics involves the responsibilities that researchers bear towards those who participate in research.

Ethical issue in social research is the preservation of confidentiality and the privacy of the people involved in the study. Similarly, ethical issues are the concerns, dilemmas and conflict that arise over the proper way to conduct research. Therefore ethics define what is or are not legitimate to do or what "moral" research procedure involves (Newman, 2001).

The principal areas of ethical dilemmas that the researcher considered included the scientific misconduct, informed consent research, fraud, privacy and confidentiality.

In dealing with these issues, the researcher explained to the respondents that, the study was designed to determine the relationship between their household structure and academic performance.

The consent of the respondents was sought before the data collection exercise. With the permission of the headmasters, the pupils were released for the survey.

Issues of ethical concerns on privacy and confidentiality were also considered. The students were assured of anonymity and confidentiality of their information given.

WUSANE

#### **CHAPTER FOUR**

#### DATA PRESENTATION AND ANALYSIS

#### 4.0 Introduction

This chapter outlines the results of the study. It focuses on the presentation, interpretation and analysis of the responses of respondents sampled for the study. The study which aimed at assessing the influence of household structure on academic performance was conducted on one hundred Junior High School students in the Manhyia Educational Sub-Metro of Kumasi.

The chapter is divided into three sections. Section A presents the socio-demographic background of the respondents. Section B examines household characteristics and sections C looked at the relationship between household characteristics and academic performance of pupils who participated in the study.

#### SECTION A: Socio-demographic Background of respondents

This section provides the socio-demographic background of the respondents. The socio-demographic characteristics of respondents considered included: age, religious affiliation, and ethnicity, number of siblings and academic details of the respondents

#### **4.1.1** Sex Distribution of Respondents

Table 4.1 below shows the sex distribution of the 100 study participants whose views were sought for the study. Of the one hundred pupils sampled, forty-nine (49) were males

while fifty-one (51) were females. From the results it can be inferred that the sample consisted of more females than males.

**Table 4.1:** Sex Distribution of Pupils

Sex	N	%
Male	49	49.0
Female	51	51.0
Total	100	100

Source: Field Survey, April, 2013

#### **4.1.2** Age Distribution of Respondents

Table 4.2 below also shows the age distribution of pupils sampled for the study. From Table 4.2 it can be seen that the largest number of the pupils sampled were fourteen (14) years (n=42) of age at the time of the survey. The minimum and maximum ages of pupils were 12 and 16 years respectively. The mean age of the sample was approximately 14 (13.7) with a standard deviation of 0.84. Pupils who were 13 years of age constituted the second largest age group (n=35). Participants (n=1) who were 16 years at the time of the survey were the least represented in the study. From the results it can be inferred that pupils sampled for the study were mostly between the ages of 13 and 15 (n=93, 93.0%).

**Table 4.2:** Age Distribution of Pupils

Age (years)	N	%
12	6	6.0
13	35	35.0
14	42	42.0
15	16	16.0
16	1	1.0
Total	100	100

Source: Field Survey, April, 2013

#### **4.1.3** Ethnicity of Respondents

The frequency Table 4.3 below for Ethnicity indicates the number of participants for 5 categories of ethnicity, with the Akan ethnic group reporting the highest number of participants (n=85, 85.0%), followed by Mole Dagbani (n=6, 6.0%) and Ewe (n=5, 5.0%). The least number of participants were reported for Frafra (n=1, 1.0%) and Ga (n=2, 2.0%). This implies that in the sample of pupils selected for the study, there were more Akans than there was any other ethnic group. This could be attributed to the fact that the study was conducted within the Kumasi Educational sub-metro which is largely dominated by the Akan tribe.

**Table 4.3:** Pupils Ethnicity

Characteristics	N	%
Akan	85	85
Mole Dagbani	7	7
Ewe	5	5
Frafra	1	1
Ga	2	2
Total	100	100

Source: Field Survey, April, 2013

#### 4.1.4 Religious Affiliation of Respondents

Table 4.4 below shows the religious orientation of study participants. From the Table it can be seen that three main religious groups were identified, with respondent Christians (n=87, 87.0%) constituting the largest number. Respondents (n=12, 12.0%) were Muslims who belonged to the Islamic faith. Traditionalists (n=1, 1.0%) who belonged to the traditional African faith were the least represented in the survey sample.

Table 4.4: Participants Religious Group Identification

Characteristics	N	%
Christian	87	87.0
Muslim	12	12.0
Traditionalist	1	1.0
Total	100	100.0

#### 4.1.5 Sibship size of study Participants

From Table 4.5, pupils who reported having between 4-to-6 siblings comprised the largest number (n=55) of the entire sample of the study. Pupils who had between 1-to-3 siblings constituted the second largest (n= 39), with respondents having a sibling size of between 7-to-10 being the least represented (n= 6) in the sample.

**Table 4.5:** Respondents number of siblings

Characteristics	Frequency	Percent
1- 3	39	39.0
4 - 6	55	55.0
7 - 10	6	6.0
Total	100	100.0

Source: Field Survey, April, 2013

#### 4.2 Academic Details of Pupils

This part has to do with certain academic issues of the pupils which include the person responsible for the payment of fees, assistance with regards to homework and performance of pupils in the four core subjects.

#### 4.2.1 Person who pays pupils school fees

The probe into who pays pupils school fees revealed a majority of participants indicating that their school fees were paid by their fathers. A considerable number of pupils (n=26) cited their mothers as being the payers of their schools fees. Respondents, that is, 5 and 2 also indicated their school fees were paid by their other relatives and non-relatives. A summary of this result is presented in 4.6 below.

Table 4.6: Respondents self report on who pays fees

<b>Characteristics</b>	N	%
Father	67	67.0
Mother	26	26.0
Other relative	2	2.0
Non-relative	5	5.0
Total	100	100.0

Source: Field Survey, April, 2013

#### 4.2.2 Missing school and number of missed times

Study participants were made to indicate if they ever missed school during the course of the term. Those who indicated they had ever missed school were further instructed to indicate the number of times they had missed or absented themselves from school. Out of the total number of participants (N=100) sampled for the study, fifty-seven (57) indicated

they had ever missed school. Respondents (n=43) indicated they were present in class throughout the term. The minimum and maximum number of times respondents who indicated ever missing school were 1 (n=13) and 10 (n=1) respectively. Respondents who indicated missing school on two occasions (n=22) consisted the majority in the sample (n=57). The result of this measure is presented in figure 4.1

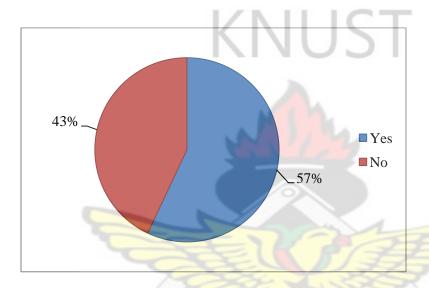


Fig. 4.1: Participants self report data on ever missing school

#### 4.2.3 Getting help with homework

To ascertain if pupils got help with their home work and who in the home provided such form of help, pupils were asked to indicate if they received assistance with regards to their home work assignments and to further identify who provided this help. Result of this analysis is presented in table 4.7 below. From the table it can be seen that majority of the respondents (n=68) indicated that they did not receive any help with their home work. Pupils (n=38) on the other hand indicated that they received assistance with their home work. Of the 38 who indicated receiving help, seventeen (17) consisting majority,

indicated receiving assistance from their siblings, 8 indicated receiving help from their fathers, with respondents (2, 2, and 3) consisting minority indicated receiving help from their mothers, guardians and other relatives respectively.

**Table 4.7:** Crosstab of getting help and who provides help with home work

Who helps with	Get help with homework		
homework	Yes	No	Total
Father	8	0	8
Mother	2	0	2
Guardian	2	0	2
Sibling	17	0	17
Relative in Household	3	0	3
N/A	0	68	68
Total	32	68	100

Source: Field Survey, April, 2013

#### 4.2.4 Performance of Pupils on Four Selected Subject

Table 4.8 indicates the minimum, maximum, mean and standard deviation of the exam scores of pupils in four subject areas. From the table it can be seen that respondents performed well in all four subjects as the average scores recorded for each subject was above 50%. This notwithstanding some students recorded very low and very high marks as seen in the minimum and maximum scores of the various subject areas.

Table 4.8: Mean and Standard Deviation on Four Test Scores

Subjects		Test	Scores	
Subjects _	Min	Max	<u>M</u>	SD
English	30	95	69.85	14.02
Mathematics	35	100	67.17	15.53
Integrated Science	39	99	65.73	14.39
Social Studies	18	100	78.21	15.06

Source: Field Survey, April, 2013

The performance of the pupils in each of the four selected subjects for the study was further categorized into low score, medium score and high score.

**Low score**  $= \le 60$ 

**Medium** = 61 - 79

**High** = 80 - 100

Table 4.9 below shows the distribution of the performance of pupils with regard to the four subjects.

Table 4.9: Academic Performance of Pupils

Rank	N	%
Low	19	19.0
Medium	59	59.0
High	22	22.0
Total	100	100.0

Source: Field Survey, April, 2013

#### **SECTION B: Household Characteristics**

This section also provides information on the household characteristics of the respondents. These include sex and age of household head, respondents' relationship to the head, marital status of head, household size and level of education of household head. It further includes the type of ownership dwelling as well as the economic status of the household.

#### 4.3.1Sex of Household Head

Table 4.10 below shows the sex of household heads. From the table it can be seen that household heads who were males (fathers) constituted the largest number (n= 68). Household heads (mothers) who were females also constituted the second largest group (n=25) in the sample. Overall the number of household heads who were males was 72 (68 fathers = 4 guardians) and that there of females was 28 (25 mothers + 3 guardians). This implies that were more respondents from male headed families than there were those from female headed households.

Table 4.10: Crosstab of Head and Gender of Household Head

Household Head	SANE NS	Sex	
Household Head	Male	Female	Total
Father	68	0	68
Mother	0	25	25
Guardian	4	3	7
Total	72	28	100

Source: Field Survey, April, 2013

#### 4.3.1 Age of Household Head

From Table 4.11, participants who reported having household heads between the ages of 41 - 50 constituted the majority of the sample (n=54, 54%). Respondents who indicated they had household heads between the ages of 31 - 40 were 27, which was the second highest in the sample. The least represented age categories in the sample were:  $\leq 30$ , 61 - 70, 71 + and 51 - 60.

**Table 4.11:** Age of Household Heads

Age (years)	N	%
<= 30	3	3.0
31 - 40	27	27.0
41 - 50	54	54.0
51 - 60	10	10.0
61 - 70	3	3.0
71+	3	3.0
Total	100	100.0

Source: Field Survey, April, 2013

#### 4.3.2 Relationship to the Head of Household

Table 4.12 below depicts the relationship of pupils to household heads in the sample. Out of the total (N=100) number of respondents sampled for the study, a large number (n=90) of pupils indicated that they were children of the household heads. The remaining 10 pupils indicated they were grandchildren (n=2), stepchildren (n=3), other relative (n=1) and non-relative (n=4) of their household heads. The implication of this result is that, pupils sampled for the study were mostly children of the household heads in the study.

Table 4.12: Frequency table for relationship to Household Head

Characteristics	N	%
Child	90	90.0
Grandchild	2	2.0
Stepchild	3	3.0
Other relative	1	1.0
Non-relative	4	4.0
Total	100	100

Source: Field Survey, April, 2013

#### 4.3.3 Marital Status of Household Head

Table 4.13 below also depicts the marital status of household heads in the sample of pupils studied. Out of the total (N=100) number respondents sampled for the study, a large number (n=78) of pupils indicated that the head of their households were married; the divorce and separated household heads constituted the second and third largest of the sample (n=9 and n=8) respectively. Respondents who indicated that their household heads were never married, were in an informal consensual union and widowed constituted the minority (1, 2 and 2 respectively). This implies that the sample consisted mostly of household heads who were married.

Table 4.13: Marital Status of Household Head

Characteristics	N	0/0
Never married	1	1.0
Informal consensual union	2	2.0
Married	78	78.0
Separated	9	9.0
Divorced	8	8.0
Widowed	2	2.0
Total	100	100

Source: Field Survey, April, 2013

#### 4.3.4 Household Size

From Table 4.14, pupils who reported having a family size of between 6-to-10 (medium) comprised the majority (n=53) of the entire sample of the study. Pupils who had a household size of 5 or less than (small family size) constituted the second largest (n= 43), with pupils having a household size of between 11-to-15 (large family size) being the least represented (n= 4) in the sample.

**Table 4.14:** Household size of Pupils

Characteristics	N	%
<u>≤</u> 5	43	43.0
> 5	57	57.0
Total	100	100.0

Source: Field Survey, April, 2013

#### 4.3.4 Highest Level of Education of Household Head

Table 4.15 provides information on the highest level of household heads as indicated by pupils. From the table it can be realised that majority of the respondents sampled for the study had at least achieved some level of formal education. Details wise, the results as indicated in the table reveal that parents who had had Post-secondary (tertiary) education constituted majority of the sample (n=37). This was followed by household heads (n=30) who had completed Secondary education, with thirty-one (27 + 4) of the respondents indicating they had household heads who had obtained some basic level of education.

**Table 4.15:** Highest Level of Education of Household Head

Characteristics	N	%
Low	33	33.0
Medium	30	30.0
High	37	37.0
Total	100	100.0

Source: Field Survey, April, 2013

#### 4.3.4 Occupation of household heads

From Table 4.16, participants who reported being Non-Professionals constituted majority of the sample (n=57). Respondents who indicated they were Professionals constituted 43 percent of the sample.

Table 4.16: Occupation of Household Head

Characteristics	N	%
Professional	43	43.0
Non-Professional	57	57.0
Total	100	100.0

Source: Field Survey, April, 2013

#### 4.3.5 Dwelling type and owner of dwelling

Figure 4.2 and Table 4.17 show the dwelling type and owner of dwelling in which study participants resided in. From the figure it can be realized that respondents who dwelt in compound houses comprised the majority (50%). This was closely followed by respondents (49%) who resided in flat/apartments. Only one (1) respondent cited living in a quarters attached to office or uncompleted building. In relation to the owner of the

dwelling, majority of the respondents (n=44) indicated that their dwelling was owned by other private individuals, twenty-five (25) also indicated that their place of dwelling was owned by the household head they were residing with. A considerable number of respondents (n=22) also indicated their dwelling place belong to a relative who was not a household member.

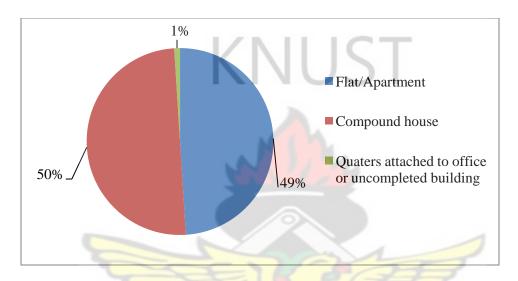


Fig. 4.2: Respondents self reported place of dwelling at the time of survey

**Table 4.17:** Owner of dwelling

Characteristics	N	<mark>%</mark>
Owned by household head	25	25.0
Owned by another member of household	5 10	5.0
Relative not household member	22	22.0
Other private individual	44	44.0
Public/government ownership	4	4.0
Total	100	100.0

Source: Field Survey, April, 2013

#### 4.3.6 Economic background of household

Table 4.18 shows the economic background of pupils sampled for the study. From the study it can be seen that thirty eight (38) respondents constituting the majority in the sample, were from low economic households. Twenty-nine (29) of the respondents belonged to households of high economic background. Thirty three (33) of the respondents also belonged to families of average economic background.

Table 4.18: Economic background of Household

Characteristics	N	%
Low ES	38	38.0
Average ES	33	33.0
High ES	29	29.0
Total	100	100.0

Source: Field Survey, April, 2013

### SECTION C: Relationship between household characteristics and academic performance

This section reports on the use of chi-square test of independence to determine the relationship between academic performance of pupils and some selected household characteristics. It examines the results of the hypothesis that were stated in chapter one. The hypotheses were:

 Pupils from small household size will perform better than pupils from large household size.

- 2. Sex of household head will significantly be related to academic performance of pupils.
- 3. Household economic background will significantly relate to academic performance of pupils.
- 4. Household head level of education will significantly relate to academic performance of pupils.

KNUST

#### **Hypothesis 1:**

Pupils from small household size will perform better than their mates from large household size.

In order to determine if the results of the analysis support the first hypothesis advanced by the study, a Chi-square test for independence was conducted to determine the relationship between household size and academic performance of pupils. The Chi-square test for independence was conducted because the hypothesis involved two variables which were measured at the nominal and ordinal level. The independent variable; household size was measured at the nominal level and had two response categories (small or large household size). The dependent variable; academic performance as indicated previously was measured at the ordinal level (low, medium/average and high).

The chi-square test for independence analysis result as depicted in Table 4.19 below indicates a statistically non-significant relationship between family size and academic performance of pupils  $x^2(2, n=100) = 0.571, p > 0.05$ .

Therefore, based on the results of the analysis conducted, the first hypothesis is not supported. This implies that pupils' from small family size do not significantly perform better than those from large family size. This is evident in the number of pupils who had high level of academic performance from small family size (n= 8) and those from large family size (n=14). This finding is not in support of most studies in research literature.

The previous studies like that of Marks (2005), Booth and Kee (2006), Eamon (2006), Majorikahnks (1996) Spanta and Paulson (1995) showed that children from larger families have lower levels of education. They argued that household heads of larger households cannot afford to divide quality time with their children. These studies assumed that large households spread their resources; economic, cultural and effectiveness more thinly than do families with fewer children.

This suggests that parents who have many children invest less money, time, emotional and psychic energy, and attention on each child. Unlike, Marks (2006) found that in almost all countries, the effect of household size decline by between a quarter and a half when taking into account the families socio-economic background. The difference in this study with previous studies may be due to cultural difference in the area of study, considering the household background. This might have contributed to the variance on the study and previous studies.

Table 4.19: Relationship between household size and pupils' academic performance

Family size	Academic Performance of Pupils			Total
ranniy Size	Low	Medium	High	
Small (< 5)	9 (21.0%)	26 (52.6%)	8 (18.6%)	43 (100%)
Large (> 5)	10 (18.2%)	33 (63.6)	14 (24.6)	57 (100%)
Total	19 (19.0%)	59 (59.0%)	22 (22.0%)	100 (100)
$x^2 = 0.571$	p-value = $0.75$			

 $x^2 = 0.571$  p-value = 0.75

# Hypothesis 2 Sex of household head will significantly be related to academic performance of pupils.

To determine if the results of the analysis support the second hypothesis advanced by the study, a Chi-square test for independence was conducted to determine the relationship between sex of household head and academic performance of pupils. The Chi-square test for independence was conducted because the hypothesis involved two variables which were measured at the nominal and ordinal level. Sex of household head was the independent variable and was measured at the nominal level with two response categories; male and female. The dependent variable was academic performance and was also measured at the ordinal level with three response categories: Low (score < 60), Medium (score between 61 and 79) and High (score between 80 and 100).

The Chi-square test for independence analysis results as depicted in Table 4.20 below indicates a statistically non-significant relationship between sex of household head and academic performance of pupils  $x^2(2, n=100) = 5.81$ , p-value = 0.06

Therefore, based on the results of the analysis conducted, the second hypothesis is not supported. The implication of this result is that pupil's academic performance is not dependent on the sex of parents or guardian. This finding is contrary to the studies by Mclana and Sandefur (1994), Gardinkel (1986). Astone et al (2008), Mandra & Murry (2004) Farry and Monna (2008) that female headed household perform better than maleheaded households.

The difference in this study with previous studies may be due to cultural difference in the area of study, considering the household background. The differences could also be attributed to the fact that Basic Education in Ghana is largely fee free. Female headed households with limited finances can also afford to sustain their children in school.

In spite of the absence of fees in public schools, research based on GLSS 4 reveals that one of the main reasons for poor academic performance of students in primary and JHS is the direct and indirect cost of schooling (GSS 2000).

Also, most of the female heads are able to meet up with the educational needs of their children. In such households the female head could be more concern about the needs of their children since the second partner is available. Another factor may be that, the performance of pupils may depend on their individual build up and aspirations in life.

**Table 4.20**: Relationship between household head and pupils' academic performance

Academic Performance of Pupils						
Sex of household head	Low	Medium	High	Total		
Male	10 (13.9%)	43 (59.7%)	19 (26.4%)	72 (100%)		
Female	9 (32.1%)	16 (57.1%)	3 (10.7%)	28 (100%)		
	1/	LILA	СТ			
Total	19 (19.0%)	59 (59.0%)	22 (22.0%)	100 (100)		
$x^2 = 5.81$	p-valı	ue =0.06				

**Hypothesis 3:** Household economic background of pupils will significantly relate to academic performance.

A Chi-square test for independence was also conducted to determine the relationship between household economic status and academic performance of pupils. The Chi-square test for independence was conducted because the hypothesis involved two variables which were measured at the ordinal level.

The chi-square test for independence analysis as depicted in Table 4.21 below indicates a statistically non-significant relationship between household economic status and academic performance of pupils  $x^2(4, n=100) = 1.13, p > 0.05$ 

Therefore, based on the results of the analysis conducted, the third hypothesis is not supported. This means that in the sample of (N=100) pupils studied, academic performance of pupils is not dependent on their household economic background. The non-significant relationship recorded could be attributed to the fact that pupils may have not reported the actual economic status of their families. This finding is invariance with most studies such as; Teachman (1987), Coleman (1998), Smith et al. (1997), Eamon (2005), Filmer and Pritchett (1999, 2001) and Lincove (2009).

Economic resources such as income and assets, which are indicators of parent and household socioeconomic status, influence youth's academic achievement. Household income and wealth have been shown to be associated with improvements in children's education in developing countries, including Sub-Saharan Africa (Filmer & Pritchett, 1999, 2001; Glick & Sahn, 2000, 2009; Lincove, 2009).

**Table 4.21**: Relationship between economic background of household and pupils' academic performance

	Academic	Academic Performance of Pupils			
Economic Background	Low	Medium	High	Total	
Low	8 (21.0%)	20 (52.6%)	10 (26.3%)	38 (100%)	
Average	6 (18.2%)	21(63.6)	6 (18.2)	33(100%)	
High	5 (17.2%)	18 (62.1%)	6 (20.7%)	29 (100%)	
Total	19 (19.0%)	59 (59.0%)	22 (22.0%)	100 (100)	
$x^2 = 1.13$	p-vali	ue = 0.89			

## **Hypothesis 4:**

Household heads level of education significantly relates will academic performance of pupils.

To determine if the results of the analysis supports the fourth hypothesis of the study a chi-square test for independence was conducted at the .05 level significance level. The Chi-square test for independence was conducted because the hypothesis involved two variables which were measured at the ordinal level.

Results of the chi-square test for independence as depicted in Table 4.22 below indicates that there was a statistically non-significant relationship between households head level of education and academic performance of students  $x^2(4, n=100) = 2.128, p = 0.712$ .

Therefore, based on the results of the analysis conducted, the fourth and last a hypothesis is not supported. The implication of this result is that academic performance of pupils' is not dependent on the level of education of their parents or guardians who are heads of the household. This conclusion is evident in the equal number of pupils with high academic performance who were from households where heads had attained SHS (n=8) or Post SHS education (n=8). The finding of this study is contrary to previous studies. For example Brooks-Gunn, 1997; Corwyn & Brandley, 2002; Morakinyo, 2003; Peters & Mullis, 1997) which indicate that high academic attainment of a household head positively affects the academic performance of pupils.

Table 4.22: Relationship between household head level of education and pupils' academic performance

Household head	Academic	Total		
level of education	Low	Medium	High	
Basic	7 (21.2%)	20 (60.6%)	6 (18.2%)	33 (100%)
SHS	7 (23.3%)	15 (50.0)	8 (26.7)	30 (100%)
Post SHS	5 (13.5%)	24 (64.9%)	8 (21.6%)	37 (100%)
Total	19 (19.0%)	59 (59.0%)	22 (22.0%)	100 (100)
$x^2 = 2.128$	n-valı	$u_e = 0.712$		

# **Summary**

Over all, the consistent patterns in the analyses of the results of the study tend to reflect the findings of household structure and academic performance of students from the extant literature. A summary of results of the research hypotheses is presented in Table 4.23 below.

Table 4.23: Results indicating significance of tested Hypotheses

	Hypothesis	Significant	Not Significant
H1	Sex of household head will significantly be related to academic performance of pupils.	-	0.06
H2	Household economic background of pupils will significantly relate to academic performance.	-	0.89
Н3	Pupils from small family size will perform better than their mates from large family size.	-	0.75
H4	Household heads level of education significantly relates with academic performance of pupils.	-	0.71

#### **CHAPTER FIVE**

## SUMMARY OF FINDINGS, CONCLUSION AND RECOMENDATIONS

This chapter is a discussion of the key findings of the study, summary of conclusion and the recommendations of the study.

KNUST

# **5.1 Summary of Findings**

The socio-demographic background of the respondents such as age, sex, religious affiliation, ethnicity, number of times absent from school, getting help with home work and others indicated the personal characteristics of the pupils.

Considering the sex and age of the respondents, it was identified that the sample consisted of more females than males, representing 51% and 41% respectively. The minimum and the maximum age s of the pupils were 12 and 16 respectively with age 14 as the mean age of the pupils.

The results of the ethnicity of the respondents indicated that Akan was the largest number ethnic group among the participants. This may due to the study area for the research. The Akan represented 85% of the total number of respondents while the other ethnic groups stood at 15%

With regards to payment of school fees, 67% of the respondents reported that their fees were paid by their fathers and 26% by their mothers. 5% and 2% of the respondents indicated that their fees were paid by other relatives and non relatives respectively.

Attendance to school also formed part of the personal characteristics of respondents. Out of the 100 respondents, 43 pupils they were present in school throughout the term and 57 pupils indicated they had ever absented themselves from school.

Again from the data analysis it can be seen that majority of the respondents (n=68) indicated that, they do not receive help with their homework. On the other hand 38 pupils indicated that they receive help with their homework.

The performance of the pupils was measured by the four selected core subjects. That is Mathematics, English Language, Science and Social studies. From the findings it was identified that 19% the respondents recorded low test scores, 59% had medium test scores and 22% had high marks. This indicates that almost half of the respondents had average marks.

The section B of the data analysis and presentation was the findings on household characteristics. The key characteristics considered in this study were age and sex of household head, relationship to the head, marital status of head, household size, level of education of head, type and ownership of dwelling and economic background of the household.

From the findings household heads who were males was 72 and that of the females were 28. This implies that there were more respondents from male headed household than there female headed households.

Out of the total (n=100) number of respondents sampled a large number (n=78) or the pupils indicated that the head of the household were married. Divorced, separated, widowed and informal union households constituted the minority.

Again, from the findings the pupils from large household size (> 5) constituted the largest number (n=57). Pupils who had a household size of 5 or less (small household size) was 43.

From the findings heads of households that had low and medium education constituted 63% and heads with high level of education constituted 37%. This indicates that most of the pupils had household heads with education.

Considering the economic background of the pupils, 38% were from low economic background. Pupils from average and high economic background were 33% and 38% respectively.

Section C of the findings provided results of the hypothesis. Chi square test of independence was used to test the hypothesis. The dependent variable, academic performance was measured by the selected household characteristics. The household characteristics were; household size, sex of household head, economic background of the household and level of education of the head. Notably, the entire hypothesis indicated a non significant difference between the selected household characteristics and academic performance of pupils. Hypothesis 1, 2, 3 and 4 respectively indicated as follows; ( $x^2 = 0.571$ , p = 0.75), ( $x^2 = 5.81$ , p = 0.06), ( $x^2 = 1.13$ , p = 0.89) and ( $x^2 = 2.14$ , x = 0.712). These findings were not in support of most the existing literature concerning household structure and academic performance.

Since all the hypothesis tested were not supported, it can be explained that the academic performance of pupils do not depend the nature of their households. That is, the household characteristics that were used for the study do not influence academic

performance of pupils. Therefore based on the analysis conducted, there were other possible factors that can account for poor academic performance of JHS pupils. Such possible factors may include the cultural background of the respondents, ineffective teaching and learning, lack of educational materials and the attitude of the pupils.

### 5.2 Conclusion

The development of any nation or community depends on the quality of education of such a nation. It is generally believed that the basis for any true development must commence with the development of human resources (Akanle, 2007). Therefore Formal education remains the tool for socio-economic development sand social mobilization of any society. Poor education outcomes can have detrimental effects on a country's economic and social development.

KNUST

Prior research acknowledges that multidimensional constructs such as economic status, parent education and household size can have a direct or indirect effect on student's academic performance.

The results of this study highlighted the household characteristics and academic performance of J.H.S. students in Manhyia Sub-metro at Kumasi. It was found that both personal factors and household background had strong direct influence on educational aspirations pupils.

The main objective for this study was to find the relationship between household structure and academic performance of pupils in JHS. The four selected household

characteristics that were used were; household size, sex of household head, economic background of household and the level of education of the household head.

Using chi square test of independence, the results indicated that there was no significant difference between household size and academic performances of pupils. The results also showed that there was no difference between household head education and sex of household head. The results again showed that there was no significant difference between the economic status of household head and academic performance of pupils.

# **5.3 Recommendation**

Based on the findings of this study, household size, sex of household head, economic status of household head and the level of education of head resulted in a non-significant predictor of academic performance of pupils in JHS in Manhya sub- metro of Kumasi. The following recommendations have been made;

Government, private organizations and individuals concerned with the business of education should endeavor to address the obstacles hindering effective academic performance of JHS pupils. This can be done by developing achievement motivation for students. Such motivation can be in a form of scholarship awards.

Although Ghana has introduced free education for J.H.S, poor households still struggle with additional costs of sending children to "free" schools which include transportation, supplementary textbooks and uniforms (UNESCO, 2005). There should be policies that would begin to address some of the underlying challenges. It is important for the government to take a close watch on non-school fees payment by household heads as

these have the potential to increase to unsustainable levels by most households especially in rural areas.

More importantly, there is the need to combat the continuing declining state of academic performance of JHS level by providing more funds and materials needed for the total upliftment of the educational system in Ghana.

Again, Household heads should be encouraged to be active in Parents Teachers Association (PTA). Their involvement would make them aware of the problems affecting the pupil's academic performance. In this way they may contribute to provide solution that would lead to better academic performance of their wards.

Finally, Guidance and counseling coordinators in charge of basic schools at the sub metro level should provide the necessary assistance and psychological support for the pupils to deal with problems that may affect their studies and help them to identify the need for better academic performance.

#### **BIBLIOGRAPHY**

Adepoju, A. Fabiyi, A. (n/d). Universal basic Education in Nigeria: Challenge and Prospects. Unpublished Thesis, University of Lagos.

Agulanna, G. G. (1999) Family Structure and Prevalence of Behavioural Problems among Nigerian Adolescents. *The Counsell* Adolescents. *The Counsellor*, 17(1), 154-1549

Akyeampong, K. A, (2008 a), 50 Years of Educational Progress and Challenges in Ghana.

Amato P.R. (1987). Family processes in one –parent, step parent, and intact families: The child's point of view. *Journal of marriage and the Family* 49, 327 – 337.

Amato, 20001 "Children in the 1990s: An update of the Amato and Keith (1991) Metu – Analysis" *Journal of family psychology* 15(3): 355 – 70.

Amato, P. R (1999). *Multiple Regression: A Primer*. Thousand Oaks, Ca: Pine Forge Press.

Amato, P. R. (1987). Family processes in one-parent, stepparent, and intact families: The *American Sociological Review*, *52*, 548-557.

Arendell, T. (Ed.). (1997). Contemporary parenting: Challenges and issues. California: SAGE.

Astone, N. M., Bishai, D., & Roche, K. M. (2007). Out-Of-School Care and Youth Problem Behaviors in Low-Income, Urban Areas. *Journal of Family and Economic Issues*, 28, 471–488. doi: 10.1007/s10834-007-9072-9

Barbbie, E. (2005). The Basics of social Research. Thompson Learning Inc, Canada.

Baumrind, D. (1978). Parental disciplinary patterns and social competence in children. *Youth & Society*, 9(3), 239-251.

Becker, G. S. (1988). Family Economics and Macro Behavior. *American Economic Review*, 78(1), 1-13.

Blake, A. A. (1989). Family and Educational attainment – San Francisco, W.A. Freeman & Co.

Booth, A. L. and Kee H. J. (2006). *The Effects of Family Size and Birth Order on Education Attainment*. Center for Economic . Policy Research. (CEPR).

Bourdieu, P. and J.\_C. Passeron (1990). *Reproduction in Education, Society and Culture*. London: Sage publications.

Centre for Migration Research. Child's point of view. *Journal of Marriage and the Family*, 49, 327-337.

Chapman, M. (1977). Father absence, stepfathers, and the cognitive performance of college students. *Child Development*, 48, 1155-1158.

Coleman, J. (1998). Social capital in the creation of Human Capital. *America Journal of Sociology* Vol. 94: 94 – 96.

Corwyn, R. F & Bradley, R. F. (2002). *Family Process mediators of the relation between SES and child outcomes*. Unpublished manuscript, University of Arkansas at Little Reck.

Corwyn, R. F., & Bradley, R. F. (2002). Family process mediators of the relation between SES and child outcomes. Unpublished manuscript, University of Arkansas at Little Rock.

Dew, J. (2009). The Gendered Meanings of Assets for Divorce. *Journal of Family and Economic Issues*, 30, 20–31. doi: 10.1007/s10834-008-9138-3

Eamon, M.K. 2005. Social – demographic, schools, neighborhood and parenting influences on academic achievement of Latino young adolescents. *Journal of Youth and Adolescence*, 34(2), 163 – 175.

Frisco, M. L., Raley, R. K., & Wildsmith, E. (2005). Maternal Cohabitation and Educational Success. *Sociology of Education*, 78(2), 144-164.

Garfinkel, I & Molanahan, S. (1986). Single Mothers and their Children Washington DC; Urban in as Press'. PP 160 – 169.

Gauthier, A. H., & Monna, B. (2008). A Review of the Literature on the Social and Economic Determinants of Parental Time. *Journal of Family and Economic Issues*, 29, 634–653. doi: 10.1007/s10834-008-9121-z

Ghana Statistical Service (GSS) (2000) Ghana Living Standards Survey. Accra

Ghana Statistical Service; Population and Housing Census Report (2010).

Gottfried, A. E, Flearing, J S, & Gottfried, A. (1998). The role of cognitively stimulating home environment in children's academic intrinsic motivation: A longitudinal study, child development (p 1448-1460)

Government of Ghana, (2007) Public Expenditure Tracking Survey (PETS)

Gurg, R.K. et al, (2002). A Structural model of educational aspirations. *Journal of Career Development*, 29(2), 87 108.

Gyekye, K. (2001), African Cultural Value: An Introduction. Sankofa Publications, Accra. Warsaw Conference Report, (2009).

Harter, S. (1979). Effective motivation reconsidered towards a developmental model (p 21, 34-64)

Harter, S. (1981) A new self- report scale of intrinsic orientation in the classroom: motivational concepts. (p 17,300-312 Ghana statistical service report (2005).

Hashim, I. (2005) Exploring the Linkages between Children's Independent Migration

Haveman, R, & Wolfe, B. The determinant of children's attainments: A review of methods and findings. *Journal of Economic Literature*, *33*, 1829 – 1878.

Hoover-Dempsey, K., & Sandler, H. (1997). Why do parents become involved in their children's education? *Review of Educational hurts*. Cambridge, MA: Harvard University Press.

Jeynes, W. H. (2002). Examining the effects of parental absence on the academic achievement of Adolescents: The Challenge of Controlling for Family Income. *Journal of Family and Economic Issues*, 23(2), 189-210. doi: 10.1023/A:1015790701554

Jeynes, W. H. (2005). "Effects of Parental Involvement and family structure on the Academic Achievement of Adolescents." *Marriage and family Review*\_37(3): 99 – 115.

Klebanov, P. K, Books – Gunn & Duncan G. J (1994). Does neighborhood and family poverty affect mothers' parenting, mental health and Social Support? Journal of Marriage and the Family, 56, 441 – 455.

Majoribarks, K, (1996). Family learning Environments and students. Outcome: A Review. *Journal of comparative family studies* 27(2), 373 – 394.

Mandara, J., & Murray, C. (2006). Father's absence and African American adolescent drug use. *Journal of Divorce & Remarriage*, 46, 1-12

Marks, G.N (2005). "Cross – national Differences and Accounting for Social Inequalities in Education". International Sociology 107(i): 1 – 32.

Mclanahan, S. (2004) "Diverging Destinies: How children are faring under the Second Demographic Transition". Demography, 41 (4): 607 - 27).

McLanahan, S. S. (1985). Family-Structure and the Reproduction of Poverty. *American Journal of Sociology*, 90, 873-901.

McLanahan, S. S., & Sandefur, G. D. (1994). *Growing Up with a Single Parent: What Hurts, What Helps?* Cambridge, MA: Harvard University Press.

McLanahan, S., & Sandefur, G. (1994). *Growing up with a single parent: What helps, what models of Education management.* Oslo: Eli Publication.

Newman, L. W. (2000). Social Research Methods; Qualitative Approaches. Allyn and Bacon, USA.

Nukunya, G.K. (2003). Tradition and change in Ghana. Ghana University press.

Nwanko, (1984). MasteringResearch in Education and the social sciences. Ibadan, Bisi Books Nigeria Ltd.

Nzewunwah, P. N. (1995) *The Effects of Single Parenthood on the Academic Performance of Students*. Unpublished M.Ed. Project, University of Lagos

OECD/UNESCO-UIS (2003) Family Background and Literacy Performance. http://www.oecd.org/dataoecd/43/9/33690591.pdf

.

Popenoe, D. (1996). Life without father. New York: Free Press.

Powell, B and Steel, L. C. (1993). The Educational Benefits of Being Spaced Out: siblings destiny and Educational progress. 58:367-381.

Reese ,H & Fremouw, W. (1984). Normal and Normative Ethics in Behavioral Science. Mercer University Press. *Research*, 67(1), 3–42.

Sax, L. (2006). What teachers need to know about the emerging science of sex differences. *Educational Horizons*, *84*, 190-212.

Schramm, D. G. (2006). Individual and Social Costs of Divorce in Utah. *Journal of Family and Economic Issues*, 27(1), 133-151. doi: 10.1007/s10834-005-9005-4

Smith et all, (1997). Consequences of living in poverty for young children's cognitive and verbal ability and early school achievement.

Sogbetun A. A (1981). *Teachers and Students Opinion about the Causes of Poor Academic Performance in Secondary Schools*. Unpublished M.Ed. Project.Ibadan: University of Ibadan.

Teachman, J. (1987). Family background, educational resources, and educational attainment. *American Sociological Review*, 52, 548 – 557.

The Ghana Education Act. (1995).

UNICEF (2005). Child Poverty in Rich Countries. Florence: Innocenti Research Centre.

Van Ejick, K. and Degraaf, P. M. (1995). The Effects of Family Structure and The educational Attainment of Siblings in Hungary. 11 (3): 273-292.

Wentzel K. R (1998) Social relationship and motivation in middle school: The role of parents, teachers and peers –*Journal of Educational psychology* (90), 202-209)

Warsaw Conference Report, (2009).

Zelvys ,R. (2004). Change in Quality Assurance Systems and Theoretical models in Education Management. Eli Publication.



# APPENDIX A

# <u>Household Structure and Academic Performance of Pupils in Junior High School in</u> <u>Manhyia sub-Metro of Kumasi.</u>

# **Pupils' Questionnaire**

# SECTION A: SOCIO-DEMOGRAPHIC AND ACADEMIC BACKGROUND OF PUPILS

1.	School Code
2.	Present class in school:
	1.JHS1
3.	Age in completed years
4	Sex
	1. Female 2. Male
5.	Ethnic group
	1. Akan
	2. Mole Dagbani
	3. Ewe
	4. Other (Specify)
6.	Religion
	1. Christianity
	2. Islam
	3. Traditional
	4. Others (Specify
6.	How many siblings do you have?
7.	Who mainly pays your school fees?

	1.	Father
	2.	Mother
	3.	Other relative
	4.	Non-relative
	5.	Other (Specify)
8.	Die	d you have to miss school this semester? 1. Yes 2. No
	(II	F NO GO TO QUESTION 13)
9.	If `	Yes to Question 8, how many times have you missed school this semester?
10	. De	o you watch television almost every day, at least once a week, less than once a
	we	eek, or not all?
	1.	Almost every day
		At least once a week
		Less than once a week  Not at all
	••	
11	. D	o you usually get help with your homework? 1. Yes 2. No
	(II	F NO GO TO QUESTION 13)
12	. If	Yes to Q11, who in yo <mark>ur household mai</mark> nly help you with your homework?
	1.	Father
	2.	Mother
	3.	Guardian
	4.	Sibling
	5.	Relative in household
	6.	Other (Specify)

13. What was your grade in the following subjects last semester?

# (Response to be verified from school records)

Subject	Mathematics	English	Integrated science	Social studies
Marks				
(100%)				

(100%)	
14. What was your position in class last semester?  (Response to be verified from school records)	
SECTION B: HOUSEHOLD CHARACTERISTICS	
15. Who is the head of your household?	
1, Father	
2 Mother	
3. Guardian	
4. Other relative	
5. Other (Specify)	
16. Sex of household head.	
1. Male	
2. Female	
17. Age of hou <mark>sehold head</mark>	
WASANE NO	
18. What is your relationship to the head?	
1. Child (Son/ daughter)	
2. Grandchild,	
3. Step child,	
4. Other relative,	
5. Non- relative	

19. Marital status of household head.
1. Never married
2. Informal consensual union
3. Married
4. Separated
5. Divorced
6. Widowed
20. The number of persons in your household
21. Highest level of education of the household head.
1 None
2. Primary
3.JHS/ JSS/MSCL
4. SHS/SSS/Secondary
5. Post- Secondary
22. Occupation of head
1. Farmer
2. Trader
3. Professional
4. Other (Specify)
23. What type of dwelling does the household live?
1. Flat / Apartment
2. Compound house
3. Improvised home (kiosk, container)
4. Quarters attached to office or uncompleted building
5. Other (Specify)

24. Who owns the dwelling?
1. Owned by household head
2. Own by another member of household
3. Relative not household member
4. Other private individual
5. Public/ government ownership
6. Other (Specify)
25. Does your household access to any of the following?
(MULTIPLE RESPONSE -PROVIDE ALL APPROPRIATE ANSWERS
1. Bicycle/motorbike 1. Yes 2. No
2. Motorcar 1. Yes 2. No
3. Computer 1. Yes 2. No
4. Internet facility 1. Yes 2. No
5. Fixed telephone line 1. Yes 2. No
THE WAS AND BROWNIE

APPENDIX B

<u>Chi-square Test Results</u>

Sex of household head \* Level of Academic Performance Cross-tabulation

		id nead · Level of Academi	Level of Academic Performance			Total
			Low	Medium	High	
	-	Count	10	43	19	72
		Expected Count	13.7	42.5	15.8	72.0
	Male	% within Sex of household head	13.9%	59.7%	26.4%	100.0%
		% within Level of Academic Performance	52.6%	72.9%	86.4%	72.0%
Sex of		% of Total	10.0%	43.0%	19.0%	72.0%
household head		Count	9	16	3	28
		Expected Count	5.3	16.5	6.2	28.0
	Female	% within Sex of household head	32.1%	57.1%	10.7%	100.0%
6		% within Level of Academic Performance	47.4%	27.1%	13.6%	28.0%
		% of Total	9.0%	16.0%	3.0%	28.0%
		Count	19	59	22	100
		Expected Count	19.0	59.0	22.0	100.0
Total		% within Sex of household head	19.0%	59.0%	22.0%	100.0%
T.		% within Level of Academic Performance	100.0%	100.0%	100.0%	100.0%
	40	% of Total	19.0%	59.0%	22.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.810 <sup>a</sup>	2	.055
Likelihood Ratio	5.815	2	.055
Linear-by-Linear Association	5.616	1	.018
N of Valid Cases	100		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.32.

**Level of SES \* Level of Academic Performance Cross-tabulation** 

	Level of SE	S · Level of Academic 1 eff	Level of Academic Performance		Total	
			Low	Medium	High	
		Count	8	20	10	38
		Expected Count	7.2	22.4	8.4	38.0
	Low SES	% within Level of SES	21.1%	52.6%	26.3%	100.0%
		% within Level of Academic Performance	42.1%	33.9%	45.5%	38.0%
		% of Total	8.0%	20.0%	10.0%	38.0%
		Count	6	21	6	33
		Expected Count	6.3	19.5	7.3	33.0
Laval of SES	Average SES	% within Level of SES	18.2%	63.6%	18.2%	100.0%
Level of SES	Average SES	% within Level of Academic Performance	31.6%	35.6%	27.3%	33.0%
		% of Total	6.0%	21.0%	6.0%	33.0%
	High SES	Count	5	18	6	29
		Expected Count	5.5	17.1	6.4	29.0
6		% within Level of SES	17.2%	62.1%	20.7%	100.0%
	riigii SES	% within Level of Academic Performance	26.3%	30.5%	27.3%	29.0%
		% of Total	5.0%	18.0%	6.0%	29.0%
		Count	19	59	22	100
		Expected Count	19.0	59.0	22.0	100.0
Total		% within Level of SES	19.0%	59.0%	22.0%	100.0%
Total		% within Level of Academic Performance	100.0%	100.0%	100.0%	100.0%
	900	% of Total	19.0%	59.0%	22.0%	100.0%

Chi-Square Tests						
	Value	df	Asymp. Sig. (2-sided)			
Pearson Chi-Square	1.134 <sup>a</sup>	4	.889			
Likelihood Ratio	1.134	4	.889			
Linear-by-Linear Association	.019	1	.889			
N of Valid Cases	100					

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.51.

Family size categories \* Level of Academic Performance Cross tabulation

ranny si			Level of Academic Performance		Total	
			Low	Medium	High	
	<del>-</del>	Count	9	26	8	43
	Small	Expected Count	8.2	25.4	9.5	43.0
		% within Family size categories	20.9%	60.5%	18.6%	100.0%
		% within Level of Academic Performance	47.4%	44.1%	36.4%	43.0%
Family size categories		% of Total	9.0%	26.0%	8.0%	43.0%
Family size categories		Count	10	33	14	57
		Expected Count	10.8	33.6	12.5	57.0
		% within Family size categories	17.5%	57.9%	24.6%	100.0%
		% within Level of Academic Performance	52.6%	55.9%	63.6%	57.0%
		% of Total	10.0%	33.0%	14.0%	57.0%
		Count	19	<del>5</del> 9	22	100
		Expected Count	19.0	59.0	22.0	100.0
Total		% within Family size categories	19.0%	59.0%	22.0%	100.0%
		% within Level of Academic Performance	100.0%	100.0%	100.0%	100.0%
		% of Total	19.0%	59.0%	22.0%	100.0%

**Chi-Square Tests** 

"	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.571 <sup>a</sup>	2	.752
Likelihood Ratio	.576	2	.750
Linear-by-Linear Association	.518	1	.472
N of Valid Cases	100		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.17.

Educational level of household head in level \* Level of Academic Performance Crosstabulation

Educational lev	ei oi nousei	iold head in level * Level of	Academic	Periorman	ce Crossiai	ouiation
			Level of Academic Performance		Total	
			Low	Medium	High	
		Count	7	20	6	33
		% within Educational				
		level of household head in	21.2%	60.6%	18.2%	100.0%
	Basic	level				
		% within Level of	36.8%	33.9%	27.3%	33.0%
		Academic Performance	30.670	33.970	27.570	33.070
		% of Total	7.0%	20.0%	6.0%	33.0%
		Count	7	15	8	30
		% within Educational				
Educational level		level of household head in	23.3%	50.0%	26.7%	100.0%
of household head	SHS	level				
in level		% within Level of	36.8%	25.4%	36.4%	30.0%
		Academic Performance	30.070	23.470	30.470	30.070
		% of Total	7.0%	15.0%	8.0%	30.0%
		Count	5	24	8	37
		% within Educational	1	5		
-		level of household head in	13.5%	64.9%	21.6%	100.0%
	Post SHS	level	57			
		% within Level of	26.3%	40.7%	36.4%	37.0%
		Academic Performance	20.370	40.770	30.470	37.070
		% of Total	5.0%	24.0%	8.0%	37.0%
-		Count	19	59	22	100
13		% within Educational	13			
		level of household head in	19.0%	59.0%	22.0%	100.0%
Total		level	S. C.			
		% within Level of	100.0%	100.0%	100.0%	100.0%
		Academic Performance	100.070	100.070	100.070	100.070
		% of Total	19.0%	59.0%	22.0%	100.0%

**Chi-Square Tests** 

34						
	Value	df	Asymp. Sig. (2-sided)			
Pearson Chi-Square	2.128 <sup>a</sup>	4	.712			
Likelihood Ratio	2.181	4	.702			
Linear-by-Linear Association	.522	1	.470			
N of Valid Cases	100					

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.70.

