UNIVERSITY OF CAPE COAST

# INFLUENCE OF HOUSEHOLD STRUCTURE ON ACADEMIC ACHIEVEMENT OF SENIOR HIGH SCHOOL STUDENTS IN THE

**BOSOME-FREHO DISTRICT, GHANA** 

ISAAC ADJEI BOATENG

2021

UNIVERSITY OF CAPE COAST

# INFLUENCE OF HOUSEHOLD STRUCTURE ON ACADEMIC ACHIEVEMENT OF SENIOR HIGH SCHOOL STUDENTS IN THE



**ISAAC ADJEI BOATENG** 

BY

Thesis submitted to the Department of Education and Psychology of the Faculty of Educational Foundations, College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Philosophy degree in Sociology of Education

APRIL 2021

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# DECLARATION

# **Candidate's Declaration**

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature	Date
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Name: Isaac Adjei Boateng

# **Supervisors' Declaration**

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines of supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature:	Date
Name: Dr. Stephen Baafi-Frimpong	
Co- supervisor's Signature:	Date
Name: Dr. Edward Kofi Ntimo BIS	

ii

#### ABSTRACT

The purpose of this study was to find out the influence of household structure on the academic achievement of students in the Bosome Freho District of the Ashanti Region. Descriptive design was used for the study. The target population for this study consisted of all senior high school students in Bosome Freho District of the Ashanti region. Purposive sampling was used to select the public senior high schools in the district. A self-designed questionnaire developed by the researcher and students' test scores were used for the data collection. Mean and standard deviation were used for the interpretation of the data analysis. One way Analysis of Variance was used to test hypothesis one and independent t-test was used to test research hypotheses two and three. Results of the study clearly showed that on the average, students perceived that socio-economic status of the household, to greater extent, affected students' academic achievements. The study also revealed that students from smaller family sizes had higher academic achievement as compared to those from larger family sizes. Moreover, the study revealed that students from two-parent families performed better than students from single parent families. Also, the study found out that the academic achievement of students in male-headed households and female-headed households were the same. It is recommended that the government should support students from low socio-economic households with the necessary academic materials to enable them perform better. Also, the Ghana Education Service should therefore educate parents on the adverse effects of larger family size with no preparation to cater for their academic needs fully.

# **KEYWORDS**

Household Structure

Family Size

Socio-economic Status

Senior High School

Academic Achievement



## ACKNOWLEDGEMENTS

My profound and immense gratitude goes to Dr. Stephen Baafi-Frimpong and Dr. Edward Kofi Ntim for their selflessness and patience which were demonstrated in their contributions, collaboration, suggestions and encouragement towards the completion of this work. I am also grateful to my mates, Mr. Alex Owusu-Paintsil and Mr. Emmanuel Owusu-Akyeaw for their tremendous help and encouragement throughout the project.

I thank students and staff of Bosome Senior High Technical, and all other students who participated to make this project a success, for all their invaluable services rendered.

v



DEDICATION

To my dear wife



# TABLE OF CONTENTS

DECLARATION	ii
ABSTRACT	iii
KEYWORDS	iv
ACKNOWLEDGEMENTS	V
DEDICATION	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xi
LIST OF FIGURES	xii
CHAPTER ONE: INTRODUCTION	
Background to the Study	1
Statement of the Problem	6
Purpose of Study	8
Research Question	8
Research Hypotheses	8
Significance of the Study	9
Delimitations	11
Limitations NOBIS	11
Definition of Terms	12
Organization of the Study	12
CHAPTER TWO: LITERATURE REVIEW	
Introduction	14
Theoretical Framework	14
The Human Capital Theory	14

Application of Human Capital Theory to Academic System	17
Criticisms of Human Capital Theory	18
Conceptual Review	19
Family structure	19
Household structure	22
Household head	23
Household size	23
Household size and academic performance	24
Households and academic attainment of students	28
Single parent and step-parent households and academic aspirations	31
Co-residing with grandparents and academic aspirations	32
Single-mother families	33
Single-father families	35
Academic Achievements of students in female-headed and male-headed	
households	36
Parents' academic level and aspirations of children	39
Parents' careers and academic aspirations of children	42
Divorce	43
Parental Expectations NOBIS	44
Culture of Poverty	44
Cultural-ecological Perspectives	46
Socioeconomic Resources	47
Economic Theories of Academic Aspirations	55
Human Capital	56
Rational Action / Choice	56

Parenting	58
Parent's time with children	61
Gender and academic aspiration	62
Social-psychological Factors	64
Social-psychological Theories of Academic Aspirations	65
Social Learning	65
CHAPTER THREE: RESEARCH METHODS	
Introduction	68
Research Design	68
The Study Area	70
Population	70
Sampling Procedures	71
Data Collection Instruments	73
Academic Achievement Test: Mathematics	74
Academic Achievement Test: English Language	74
Academic Achievement Test: Social Studies	75
Academic Achievement Test: Integrated Science	75
Validation of Research Instruments	75
Pilot Study NOBIS	75
Data Collection Procedures	76
Scoring of Instruments	77
Ethical Consideration	78
Data Processing and Analysis	80
CHAPTER FOUR: RESULTS AND DISCUSSION	
Introduction	81

Demographic Characteristics of the Respondents	81
Analysis of the Main Data	83
Research Question 1	83
Results from Research Hypotheses	86
Hypothesis	86
Hypothesis	91
Hypothesis	93
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND	
RECOMMENDATIONS	
Introduction	96
Summary of the Study	96
Summary of Key Findings	97
Conclusions	98
Recommendations	99
Suggestions for further studies	100
REFERENCES	101
APPENDICES	127
APPENDIX A: QUESTIONNAIRE FOR RESPONDENTS	127
APPENDIX B: CORE MATHEMATICS	132
APPENDIX C: ENGLISH LANGUAGE	136
APPENDIX D: SOCIAL STUDIES	140
APPENDIX E: INTEGRATED SCIENCE	144
APPENDIX F: INTRODUCTORY LETTER	147
APPENDIX G: ETHICAL CLEARANCE	148

# LIST OF TABLES

Table	P	age
1	Distribution of Accessible Population for the Study	71
2	Distribution of the Sample Size	
3	Reliability Measure of the Questionnaire for Students	76
4	Demographic Information of the Respondents	
5	Perceived effect of socio-economic status of parents on the child's	
	academic achievement	84
6	Test of Homogeneity of Variances	87
7	Descriptive Statistics of scores of students based on family size	88
8	Summary of ANOVA results comparing the academic	
	achievement of students on the basis of household size	88
9	Multiple Comparisons results comparing the academic	
	achievement of students on the basis of household size	89
10	Result of t-test Analysis of the academic achievement of students	
	from single parent families and those from two parent families	92
11	Result of t-test Analysis Comparing academic achievement of	
	students in male-headed household and female-headed household	94

xi

# LIST OF FIGURES

Figure		Page
1	Normal Q-Q Plot	87



#### **CHAPTER ONE**

# **INTRODUCTION**

# **Background to the Study**

Education is considered as the development of the endowed capacities in the individual, which will enable that individual to control his/her environment and fulfill his/her possibilities to a large extent (Saxton, 2000). Indeed, in this era of globalization and technological revolution, education is considered as the first step for every human activity. It plays a vital role in the development of human capital and is linked with an individual's well-being and opportunities for better living (Battle & Lewis, 2002). As economies develop, more diverse skills dependent on academic background are required for development (Lauer, 1998). It is through education that the skills, competencies, knowledge, values and attitudes of people are sharpened for rapid socio-economic development of a nation. Education seeks to prepare, train and orient the young and inexperienced for growth, development, participation and contribution to national development through relevant activities. Every citizen therefore needs some level of education. As a means to attain human progress and sustainable development, it is pertinent to provide every citizen with quality education, since society depends on the education system for its survival, while education relies on society for its existence (Agyeman, 1993).

Over the years, investigation into the factors that influence academic achievement of students has attracted the interest and concern of teachers,

counselors, psychologists, researchers and school administrators (Sogbetun, 1981). The importance of education in any society cannot be overemphasized since it serves the purpose of social reconstruction, economic efficiency, cultural change, social integration, political transformation, and the development of the general manpower resources as well as the development of excellence (Anyanwu, 2000).

Students' achievement (academic achievement) plays an important role in producing the best quality students who will become great leaders and manpower for the country. They are thus responsible for the country's economic and social development (Ali, Jusoff, Syukriah, Najah, & Syafena, 2009). Grades awarded to individuals at the end of an academic study are important indicators of ability and productivity when those individuals look for their first jobs. In fact, a person's education is closely linked to his/her life chances, income and wellbeing (Battle & Lewis, 2002). Thus, students' success in any academic task has always been of special interest to educators, parents and society at large (Ajayi, 2006). The issue of factors affecting students' academic achievement therefore remains a top priority to educators (Considine & Zappala, 2002).

A number of studies have been carried out to identify the factors that affect academic achievements of students in a number of academic institutions worldwide. Most of these studies focus on three elements that intertwine, that is, parents (family causal factors), teachers (academic causal factors), and students (personal causal factors) (Crosnoe, Johnson & Elder, 2004). The combination of these factors influencing academic achievement, however,

varies from one academic environment to another, from one set of students to the next, and indeed from one cultural setting to another (Diaz, 2003).

Literature indicate that there is an awareness of the importance of the home environment or family on pupils'/students' academic achievement. The home has a great influence on students' psychological, emotional, social and economic state. In the view of Ajila and Olutola (2007), the state of the home affects the individual since the parents are the first socializing agents in an individual's life. This is because the family background and context of a child affect his or her reaction to life situations and his or her level of achievement. Although, the school is responsible for the experiences that make up the individual's life during school periods, yet parents and the individual's experiences at home play tremendous roles in building the personality of the child and making the child what he or she is. Thus, Ichado (1998), concluded that the environment in which the student comes from can greatly influence his or her achievement at school.

Adane (2013), found that environmental factors such as limited number of teachers with high academic qualification, inadequate teaching and learning materials, and misuse of contact hours had accounted for the low academic achievement of students in Kemp Methodist JHS in Aburi, in the Eastern region of Ghana. Teachers' level of education plays a very important role in their level of delivery in the classroom. She stated that a teacher's knowledge of the subject matter coupled with all the academic materials have great influence on teaching and learning in Kemp Methodist Junior High School. She also found that inadequate teaching and learning materials also accounted for the low academic achievement of pupils of Kemp Methodist

Junior High School. None of the teachers of the school indicated that the school had enough teaching and learning materials to support their work. She also further stated that pupils perform better when they have materials like textbooks, maps, science equipment and pictures to aid them. Contact hours are meant for academic work but pupils of Kemp Methodist Junior High School sometimes missed this, which also contributed to poor academic achievement.

A family's socio-economic status is based on family income, parental education level, parental occupation, and social status in the community such as contacts within the community, group associations, and the community's academic achievement (record) of the family. Families with high socio-economic status often have more successes in preparing their young children for school because they typically have access to a wide range of resources to promote and support young children's development (Edet, & Ekegre, 2007). They are able to provide their young children with high-quality child care, books, and toys to encourage children in various learning activities at home. Also, they have easy access to information regarding their children's health, as well as social, emotional, and cognitive development. In addition, families with high socio-economic status often seek out information to help them better prepare their young children for school (Edet,, & Ekegre, 2007)).

According to Vashist (1993), a problematic child generally comes from a problematic home. The interaction and reinforcement that originate from an unfavorable home life carry over into school and sometimes they hinder all academic progress. A child who is unhappy, disturbed and mentally tortured simply has no enthusiasm for worthwhile and successful life which has not

been met at home, he/she will try in one way or another to satisfy it in another place. Gottfried and Fleming (1998), noted that environment inside the home was found to have a statistically positive and significant effect on academic intrinsic motivation. They explained that children whose homes had greater stress on learning opportunities and activities were more academically intrinsically motivated.

Parent's level of education is important in predicting children's achievement (Haveman & Wolfe, 1995; Smith, Brooks-Gunn, & Klebanov, 1997). Parental education had a significant positive effect on academic attainment of the students. The mother's education level had a 20% higher affect than the father's education level on the academic achievement of adolescents (Peters & Mullis, 1997). Smaller family 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 achievement (Eamon, 2005; Majoribanks, 1996). The size of families has some effects on academic achievement 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's academic potentials because their time is only shared with a less number of children.

Studies have again and again 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 effects on the academic achievement of the students because low socio-economic status is obstruction to access to vital resources and creates additional stress at home (Eamon 2005; Jeynes, 2002). Many research studies have shown that socioeconomic status is a factor responsible for the academic attainment of students. Morakinyo (2003), found that there is a relationship between socioeconomic status and academic achievement of students. White (1986), in a Meta-analysis of 620 correlations coefficient from 100 students indicated 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 a positive relationship. It means that if one factor increases the other also increases. It surfaced that those children whose socio-economic status is strong show better academic achievement and those with poor socio-economic status show poor and unsatisfactory academic achievement.

# **Statement of the Problem**

The family lays the psychosocial, moral and spiritual foundations in the overall development of the child and the mother's significant role in this cannot be over-emphasized. Studies on father-child relationship suggest that the presence of a father in the home influences significantly the development of a child (Agulanna, 1999). Thus, parenthood is a responsibility requiring the

full cooperation of both parents who must ensure the total development of their offspring(s). Structurally, a family is either broken or intact. A broken family in this context is one that is not structurally intact for various reasons; death of a parent, divorce, separation, dissertation and illegitimacy in which case, the family was never completed (Conkline, 1996). This observation becomes necessary because life in a single parent family can be stressful for both the child and the parent. Such families with the tribulations stated above are faced with the challenges of diminished financial resources (Children's Defence Fund, 1994), assumption of new roles and responsibilities, establishment of new patterns in interfamilial interaction and reorganization of routines and schedules (Agulanna, 1999). These conditions are not conducive for effective parenting. This is because when the single parent is overburdened by responsibilities and by their own emotional reaction to their situation, they often become irritable, impatient and insensitive to their children's needs (Nzewunwah, 1995).

Although, the home environment or family has been recognized as having a lot of influence on the academic achievement of students (Nzewuawah, 1995; Ajila & Olutola, 2007), previous studies have been concentrated on the area of socio-economic status of parents. Other aspects of parental environment such as the structure of the family have been grossly neglected. Yet, Ichado (1998), stated that parents' constant disagreement affects children emotionally and this could lead to poor academic achievement in school. The crux of this study is therefore to investigate the role of household structure in the academic achievement of students in senior high schools in the Bosome Freho District of the Ashanti region.

# **Purpose of Study**

The purpose of this study was to find out the role of household structure on the academic achievement of students in senior high schools in the Bosome Freho District of the Ashanti Region. Specifically, the study was designed to find out;

- the perceived effects of socio-economic status of parents on students' academic achievement.
- 2. if there was significant differences in academic achievement of students on the basis of household size.
- 3. whether any differences existed in the academic achievement of students from single-parent families and students from two parent families.
- 4. whether there was any difference in the academic achievement of students in male-headed household and female-headed household.

# **Research** Question

The study sought to answer this question:

1. How does the socio-economic status of parents affect the child's academic achievement?

# Research Hypotheses NOBIS

- **1.** H<sub>0</sub>1: There is no statistically significant difference in the academic achievement of students on the basis of household size.
  - **H**<sub>A</sub>**1:** There is a statistically significant difference in the academic achievement of students on the basis of household size.

- 2. H<sub>0</sub>2: There is no statistically significant difference between the academic achievement of students from single parent families and those from two parent families.
  - **HA2:** There is a statistically significant difference between the academic achievement of students from single parent families and those from two parent families.
- **3.** H<sub>0</sub>**3**: There is no statistically significant difference in the academic achievement of students in male-headed household and female-headed household.
  - H<sub>A</sub>3: There is a statistically significant difference in the academic achievement of students in male-headed household and female-headed household

# Significance of the Study

The findings of the study will benefit the nation, the government, the ministry of education, the Ghana Education Service, Metropolitan, Municipal and District Assemblies and the NGOs that are into education as well as all parents and guardians if published widely.

Many Senior High School 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. Also the study will be useful to Senior High School teachers and other stakeholders of education in their attempt to find solutions to the poor academic performance of Senior High School 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. The study will benefit the nation and the government because policy makers and social commentators will get to know that despite the huge financial, material and logistical investments made into pre-tertiary schools in order to promote quality learning in pupils and students that may not be realized because of the structure of their household.

Policy makers and social commentators may then find ways and means of addressing students' attitudes towards their academic work. The Ministry of Education and Ghana Education Service will also get to know that there are other factors which influence students' academic achievement in their various external examinations. The results of the study may also help parents to appreciate the need to monitor, supervise and support their children in their academic work.

If the results of the study are published in the media, all the Metropolitan, Municipal and District Assemblies and the Non-Governmental Organizations will also get to know that the low academic achievement of candidates in their final exams cannot be attributed solely to the lack of furniture, insufficient textbooks, unqualified teachers and poor teaching alone. Parents and guardians have to provide their children with the care and support that will boost their morale to study harder in order to aspire higher.

Parents and guardians will benefit from the results of the study with respect to the actual roles they should play to help their wards aspire higher as far as their education is concerned.

10

### **Delimitations**

The study focused on the influence of household structure (mother-led, father-led, grandparent-led, child-led, blended and extended family). The study was conducted in the Bosome Freho District in the Ashanti Region. The study focused on all three public Senior High Schools in the District. The form two students in the public Senior High Schools were used for the study. The choice of Senior High School form two students was based on the assumption that the students would be able to read and respond to the items on the research instruments with little or no guidance. Scores of tests in the four core subjects; English, Mathematics, Social Studies and Integrated Science were used as proxy for academic performance.

# Limitations

There are few challenges that the researcher encountered during the study. First of it was absenteeism on the part of some students. All the students took part in the tests but some were not present during the administration of the instrument. This made the researcher visit those schools at different times to administer the instruments to such students which delayed the study a bit.

Again, the population of this study was limited to public Senior High School Students in the Bosome Freho District, therefore, the results of the study was not generalised directly to all Senior High School Students in Ghana. The results provided insights and a general opinion for this specific sample. Respondents tried to give responses in ways that reflected their idea of what responses the researcher wanted from them. Also, despite the numerous advantages of questionnaires dishonesty was an issue. Thus, respondents might not be 100 percent truthful with their answers. This could happen for

variety of reasons, including social desirability bias and attempting to protect privacy.

#### **Definition of Terms**

The operational definitions of the terms used in the study are presented as follows:

House hold structure: Comprises the nature of the family whether divorced or not, family size, parents' socio-economic status and parents' academic background.

**Family structure:** Family structure is sometimes used in the literature to refer to family processes. Therefore in this study, household structure refers to the number of people that make up a family. Depending on how a family is structured, a family is classified into any of the family structures that include mother-led, father-led, grandparent-led, child-led, blended, and extended families.

# **Organization of the Study**

This thesis is organized into five chapters with the first chapter covering the background of the research problem, statement of the problem, and the purpose of the study. The research questions and the hypotheses were also stated. Others are the significance of the study, delimitation of the study, limitations of the study and operational definition of terms. Literature related to the study has been reviewed in chapter two. The review involved the conceptual framework and the empirical review. The third chapter covered the methodology, which deals with the design, the population and sampling and the research instruments used. The procedures adopted for gathering and analyzing the data are also explained. The fourth chapter presents the findings

and discussion of the results of the study. Chapter Five presents the summary of the findings and the relevant conclusions of the study. Recommendations based on the research findings are also offered.



### **CHAPTER TWO**

# LITERATURE REVIEW

# Introduction

A lot of work has been done regarding household structure as it relates to various aspects of human life and wellbeing. Previous empirical literature makes it clear that household structure plays an important role in the economic and social wellbeing of families and individuals. The number and characteristics of household members affect the types of relationships and the pool of economic resources available within the household. Although families may provide social and economic support to members who reside in different households, an individual's overall wellbeing is heavily influenced by his or her living arrangements.

# **Theoretical Framework**

There are several theories that explain students' academic achievement, yet in this study, the human capital theory and self-determination theory of motivation were reviewed.

# **The Human Capital Theory**

The study is rooted in human capital theory. Human capital theory was first developed by the economists Schultz (1962), and Becker (1962), to account for increases in students' achievement (productivity) that could not be explained by improvements in technology or financial capital. The idea behind the human capital theory is that the skills, talents and knowledge of people amount to a kind of "capital" analogous to financial assets (Psacharopoulos &

Patrinos, 2004). The human capital model is an elaboration of the common sense notion that the function of schools is to teach students; that is, to provide them with information and skills that will be valuable in later life (Beach, 2009).

The human capital theory rests on the assumption that formal education is highly instrumental and necessary to improve the productive capacity of a population. Further, the human capital theory is concerned with the wholesome adoption of the policies of education and development. In short, the human capital theorists argue that an educated population is a productive population (Rastogi, 2002). The theory emphasizes how education increases the productivity and efficiency of workers by increasing the level of cognitive stock of economically productive human capability, which is a product of innate abilities and investment in human beings (De la Fuente & Ciccone, 2002). The provision of formal education is seen as an investment in human capital, which proponents of the theory have considered as equally significant or even more worthwhile than that of physical capital (Psacharopoulos & Woodhall, 2007).

Fagerlind and Saha (2007) posit that the human capital theory provides a basic justification for large public expenditure on education both in developing and developed nations. The principal avenues of human capital enhancement are formal and informal schooling and job training. The theory suggests that, assuming people are rational, individual schools and parents make investments in their students with the expectation of realizing benefits of higher income and a better job in the future. Human capital comes into play in the dropping out of problems in terms of the family and community

intellectual environment. It is known that children of parents with high academic attainment tend to do better in school than those with low academic attainment (Schultz, 2001). This effect probably results from the transmission of values and expectations from the parents to their children as well as from the general cognitive environment of the home.

The human capital theory concludes that investment in students will lead to greater economic outputs; however, the validity of the theory is sometimes hard to prove and is contradictory. Modern economists seem to concur that education is the key to improving human capital and ultimately increasing the economic outputs of the nation (Becker, 1993; Healy, 2001). Further, the human capital theory stresses the significance of education and training as the key to participation in the new global economy. The Organisation for Economic Co-operation and Development (OECD) (2014), also boldly asserts that internationalism is a means of improving the quality of education. In keeping with human capital theory, it has been argued that the overall economic achievement of the OECD countries is increasingly more directly based upon their knowledge stock and their learning capabilities. Clearly, the OECD is attempting to produce a new role for education in terms of human capital subject required in globalized institutions.

There is some evidence on the non-monetary benefits of education. More educated individuals have better health knowledge and better health status, even after controlling for such variables as family income (Grossman, 2006; Kenkel, 2000). Other cited benefits include transmission of cultural values (Coleman, 2008; McMahon, 2009), more intelligent voting behaviour (Barr, 2010; Brennan, 2008) and reduced predisposition to criminal behaviour (Goldin, & Lawrence, 2011). The evidence on the benefits of education is reinforced by a large literature on comparisons of international economic achievement.

### **Application of Human Capital Theory to Academic System**

In order to enhance human development in the general society, it is necessary to apply the theory of human capital to academic systems. By such means, productivity is enhanced and sustained based on an increased and diversified labour force. Babalola (2003), asserts that the contribution of education to economic growth and development occurs through its ability to increase the productivity of an existing labour force in various ways. Therefore, an economic appraisal of academic investment projects should take into account certain criteria. According to Psacharopoulos and Woodhall (2007), the criteria include:

- 1. Direct economic returns to investment, in terms of the balance between the opportunity costs of resources and the expected future benefits;
- 2. Indirect economic returns, in terms of external benefits affecting other members of society;
- 3. The private demand for education and other factors determining individual demand for education;
- 4. The geographical and social distribution of academic opportunities;
- The distribution of financial benefits and burdens of education (pp 127-132).

Education plays a great and significant role in the economy of a nation; thus, academic expenditures are found to constitute a form of investment. This augments individuals' human capital and leads to greater output for society

and enhanced earnings for the individual worker. It increases their chances of employment on the labour market, allows them to reap pecuniary and nonpecuniary returns and gives them opportunities for job mobility. It is also established that Education is a source of economic growth and development only if it is anti-traditional to the extent that it liberates, stimulates, and informs the individual and teaches him how and why to make demands (Odekunle, 2001).

# **Criticisms of Human Capital Theory**

Human Capital Theory has been criticised on a number of counts. Two of them are outlined here: one, external and the other internal. The clearest statement of the deficiencies of human capital theory goes to the heart of neoclassical economics. The revival of economic sociology seeks to challenge the basic assumptions motivating the methodology of neo-classical economics. Their claims rest on two basic building blocks (Green, Little, Kamat, Oketch, & Vickers, 2007). The first is the idea that the economy is an analytically separate realm of society that can be understood in terms of its own internal dynamics. Economists are perfectly aware that politics and culture influence economy, but they see these as exogenous factors that can be safely bracketed as one develops a framework that focuses on purely economic factors. The second key foundation is the assumption that individuals act rationally to maximise utilities. Here again, economists are acutely aware that individuals are capable of acting irrationally or pursue their goals other than the maximisation of utility, but the strategy of excluding these deviations from the rationality principle is justified by the efforts to identify the core dynamics of an economy (Glewwe, 2002; Green et al., 2007).

A further criticism of human capital theory concerns a more technical problem with criticisms about the employment of the theory as a means of accounting for national economic growth. Arguments about economic growth accounting such as Becker's (1993), show at best that education contributes to differences in earnings between people and then only in certain circumstances. To buttress this, researchers (Neumayer, 2012; Luis, 2000), argued that the models so far examined in the growth accounting literature fail utterly to explain the mechanism by which this effect is produced. The contention that economic growth emanates from education is a non-sequitur because, while it may be granted that education contributes to growth, just as many other activities do, it should be noted that what must be illustrated is "not that education contributes to growth at the margin than more health, more housing and more roads" (Keeley, 2007; Lawn, & Grek, 2012).

# **Conceptual Review**

#### Family structure

Family members are a group of people who are related by marriage or adoption (Gyekye, 2001). However, a household is a group of people who share the same housekeeping and eating arrangements (Nukunya, 2003). According to the Ghana Statistical Service (GSS), (2012), a household is a person or a group of persons who live together in the same house or compound and share the same house keeping arrangement. A household comprises all the people who occupy a single housing unit, regardless of their relationship to one another. A household may be a family, for example, or it may be a group of roommates or two unmarried partners (Linda et al., 2012).

The family as a universal fundamental social institution has received a lot of attention by family researchers due to the changes occurring within it and the consequences it has for its members and the wider society at large. Three major types of families are recognized in Ghana - the extended (traditional), nuclear and polygynous families (Kpoor, 2015).

The extended traditional family in Ghana is a residential group consisting of close kin organized around either patrilineal or matrilineal relatives or lines. A typical extended family set-up, for example is a man, his wife, their offspring and their married sons and their wives as well as other kin, or a woman, her husband, their children and their married daughters with their children in addition to other kin (Nukunya, 2003). In this traditional family type, a person has wide-ranging mutual duties, obligations and responsibilities to relatives beyond his or her immediate conjugal family (Nukunya, 2003). The 2010 population and housing census of Ghana indicate that 11.9% of households are extended (Ghana Statistical Service [GSS], 2012). These households according to the census data are composed of grand children (8.2%), parent in-laws (1%), son and daughter in-laws (0.6%) and other relatives (7.3%) in addition to spouses and their off-spring (GSS, 2012).

Three key forms of nuclear families can be identified in Ghana-a connubial couple and their off-spring biological and/or adopted-the two parent family; a lone parent (male or female) and their children-the lone parent family; and a male and more than one female related through marriage and their off-spring or each female and her children comprising a part of that family unit - the polygynous family (Kpoor, 2015). The 2010 population and housing census indicate that about one-quarter of total households (24.5%) in

Ghana constitute two-parent nuclear households. The 2010 census data further reveals that two-parent nuclear households are more widespread in rural (27.3%) than urban (22.2%) areas (GSS, 2013). Single parent nuclear households in Ghana comprise 12.9% of the total number of households (GSS, 2013). A third category of nuclear household refers to the wives of one man in a polygynous union who may have separate households, rather than live in different segments of a single compound thereby forming different polygynous nuclear households or units.

A polygynous family, as partially explained above, comprises a man, his wives and children living in the same household or different households. While the 2010 population and housing census of Ghana does not provide data on polygynous households, the 2008 Ghana Demographic and Health Survey does provide information on polygynous unions in Ghana. It demonstrates that 18% of currently married women are in polygynous unions with more women (15.2%) having one co-wife as compared to 3% who have two or more cowives (GSS, Ghana Health Service [GHS] and ICF 2009). The health survey report further notes that the prevalence of polygyny in Ghana has declined from 23% to 18% between 1998 and 2008 (GSS, GHS and ICF, 2009). It has also tried to show how the process of urbanisation isolates from the extended family of the compound the small family, which may comprise man, wife and children, or even mother and children. It has been indicated that the social and economic position of the woman in such a unit is radically different from her position in an extended family. In fact, when a woman leaves the support and succour of the compound, whether as an individual or as a wife, she increases her personal liability and her dependence on herself (p. 118).

# Household structure

Household structure can be considered 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 (Ghana Statistical Service, 2010). It is important to note that members of a household are not necessarily related by blood or marriage because non-relatives e.g. House help may form part of the household.

The concept of nucleation, refers to the changing structure and composition of household living arrangements, from highly extended with its associated socio-economic system of production and reproduction, social behaviour and values, toward single-family households—especially the nuclear family, containing a husband and wife and their children alone. A negative relationship between levels of dependency, as measured by the number of children in the household, and child health outcomes is premised on the grounds that high dependency depletes resources, both tangible and intangible, to the disadvantage of young children. It has been shown that, over time, households in Ghana have been changing toward nucleation. The main finding is that in households with the same number of dependent children, in nucleated households children under age 5 have better health outcomes compared with children under age 5 in non-nucleated households. It also indicated that the effect of dependency on child health outcomes is mediated by household nucleation and wealth status and that, as such, high levels of dependency do not necessarily translate into negative health outcomes for children under age 5, based on anthropometric measures. It is interesting to know that the same assertion holds with regards to providing education for

children in Ghana. Families with good socio-economic background are well positioned to provide quality education to their wards compared to parents with low socio-economic background. (Annim, Awusabo-Asare, & Amo-Adjei, 2015).

## 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 (Ghana Statistical Service, 2010).

# Household size

Household size has to do with 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. Households with more than five persons were considered large household size. One person in each household is referred to as the "householder" and the relationship of all other household members is defined in relation to this person. The householder is usually the person, or one of the people ages 15 or older, in whose name the housing unit is owned, being bought, or rented. A family household is one containing a householder and one or more additional people who are related to the householder by marriage, birth, or adoption (Ghana Statistical Service, 2012).

According to Jacobsen et al., (2012), all children under the age of eighteen who are the biological, adopted, or stepchildren of the householder are classified as "own children". Family households include married couples with and without children under the age of eighteen, single-parent households with children, and other groupings of related adults such as two siblings sharing a housing unit or a married couple whose adult child has moved back

home. A family household can also contain additional people who are not related to the householder. For example, a single parent household with a child where a room is rented to an unrelated adult would be classified as a family household with nonrelatives present (Jacobsen et al., 2012).

A non-family household consists of a householder who lives alone or who lives only with other people who are nonrelatives, such as roommates or an unmarried partner. Unmarried-partner households can be either family or non-family households depending on which partner is designated as the householder and whether there are any additional household members related to the householder. For example, if a mother and child move into her partner's house and her partner is designated as the householder, then it is considered a nonfamily household because neither the woman nor her child are related to the householder. However, if the partner moves into the home of the mother and her child and the mother are designated as the householder, then it is considered a family household with nonrelatives present. If an unmarried couple has a biological child together, their household would be classified as a family household specifically a single-parent household no matter which partner was designated as the householder, and even though such a child would actually be living with both biological parents (Jacobsen et al, 2012).

## Household size and academic performance

Studies conducted on academic 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 (Steelman et al, 2002). This negative effect of household size on academic attainment persists after the socioeconomic characteristics of the household

are statistically controlled (Blake, 1989). Studies assume 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 academic attainment in the United States of America (USA) is weaker among Catholics than among Protestants because the Catholic community extends various kinds of support to their 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 (1989) also found that among U.S. Jews, the effect of family size on academic 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 De Graaf (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 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 academics.

The relationship between family size and children's academic 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 hypothesis 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 academic outcomes was 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 (Steelman et al, 2002). The additional attention and support leads to better school performance. The size

26

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 (Steelman et al, 2002). 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. They explained that boys in the larger families were probably more influenced by peer groups who tended to have anti-academic values.

In the empirical literature, however, the negative influence of family size on child outcomes has often been studied but the direct influence on investments in children has received little attention. Household size had a negative and significant relationship with food security at the 1% significant level, implying that the probability of food security decreases with increase in household size. The odds ratio in favour of food security decreases by the factor 0.2496882 as the household size is increased by one member. An

increase means more people to feed and indirectly reduces income per head, expenditure per head and per capita food consumption. The likely explanation is that in an area where households depend on less productive agricultural land, increasing household size results in increased demand for food. This demand, however, cannot be matched with the existing food and resources for academic pursuit. Same analysis holds when it comes to education of students from such homes and families. There is therefore some pressure on the few resources to cater for the increasing family size (Aidoo, Mensah, & Tuffour, 2013) supply from own production and this ultimately end up with the household becoming food insecure. Often scholastic achievements (Rosenzweig & Wolpin, 1980a; Blake, 1981; Hauser and Sewell, 1986; Hanushek, 1992; Hill and O' Neill, 1994; Black, Devereux & Salvanes, 2005; Conley and Glauber, 2005) or cognitive development (Belmont & Morolla, 1973; Wolfe, 1982), are used as measures of child quality.

# Households and academic attainment of students

Family and household play significant role as far as the child's academic attainment is concerned. The family nurtures and prepares one for schooling right from childhood to adulthood (DeGraaf, 1995). The presence of both parents in the household has also been found from various studies to be a determining factor to the academic attainment of children (DeGraaf, 1995). Studies conducted on academic attainment of children and the size of the household indicated that children from large household sizes attain less schooling on the average compared to children with fewer brothers and sisters. This negative effect of household size on academic attainment persists after the socioeconomic characteristics of the household are statistically controlled

(Blake, 1989). It is believed that parents who have many children invest less money, time, emotional and psychic energy, and attention on each child (Blake, 1989; Golemen, 1988). 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 and attention. When the little resource has to be spread thinly among several siblings, resource dilution occurs. This can easily be observed in many Ghanaian households where siblings may be many due to polygamous marriages, divorce and remarriage or sheer promiscuity on the part of either parents-mostly the fathers (Aidoo, Mensah, & Tuffour, 2013).

Booth and Kee (2006), argue strongly that children from larger families have lower levels of education. Further monitoring of the respondents to ascertain how far they go with their education may help confirm or deny this assertion. A study of matured respondents with regards to their academic attainment relative to their household sizes might also put this in better perspective. As far as aspirations of respondents regarding education goes, family size is an insignificant variable, as Ejick and DeGraaf argued that children's academic attainment depends on inputs of time and money from their parents. They were however quick to add that the more children there are in family the less of both inputs. These inputs are not money alone, but other essential things like attention, resource dilution and so on (2012).

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 academics.

The family type that a child comes from either monogamous (nuclear), polygamous, divorced parents, re-married parents, single parents, or stepparents usually has an impact on a child's academic performance. The nuclear family consists of two parents and children. It is held in esteem by society as being the ideal in which to raise children. Children in nuclear families receive strength and stability from the two parents' structure and generally have more opportunities due to financial ease of the two parents. According to US census data, almost 70% of children live in nuclear families and statistics have also shown that children from such families tend to fare better on a number of cognitive, emotional and behavioural needs. Single parent's family consists of one parent raising one or more children on his/her own. Most times it involves a mother with her children although it involves only fathers as well in some cases (Odok 2013).

There is documented evidence of influence of family size on students' academic performance in various subjects in school (Odok 2013). The studies of Odok, attest that small family sizes are linked with higher educational attainment. Family size in the context of this study refers to the total number of children in a child's family in addition to the child himself. Large numbered families whether rich or poor are difficult to maintain, they are characterized with a high number of children, rowdiness and this does not create convenience for learning. They also create in the upbringing of children some identified problems such as feeding, poor clothing, insufficient funds, and lack of proper attention for children, disciplinary problems and malnutrition which

impact negatively on children academic performance. He further stated that studies carried out in Scotland found that, children with relatively small size families performed better in verbal and non-verbal tests, than children from large family size in the same test. This according to him is because children from large families have less frequent interactions with adults. Similarly, parental attention by parents declines as the number of siblings increases and latter born children perform less well than their earlier born siblings (Ella, Odok, & Ella, 2015).

# Single parent and step-parent households and academic aspirations

Astone and McLanahan (1991), found out that children who grew up in single-parent families were less likely to complete high school or to attend college than children who grew up with both parents. To them, one reason children of single-parents were unable to finish high school was the precarious economic position of their families. They indicated further that mother only families were more likely than other families to be poor, and that their poverty was more extreme than that of other groups. Even among single-parent families living above poverty line, income insecurity was commonplace.

Though residents of Bosome Freho District are predominantly subsistence farmers, it was discovered that many of the respondents' parents earned undisclosed incomes as many of them visited the regional capital to trade either in Agricultural produce or other wares. These extra incomes might account for respondents not dropping out of school despite the low incomes declared by their guardians.

Research has consistently shown a greater risk of low academic achievement and attainment for children from stepfather and single-mother

31

households than for those from two biological parent families (Brown, 2004; Demo & Acock, 1996).

This researcher's observations in the Ashanti region of Ghana seem to support this idea that children living with both biological parents mostly pursued education to a greater extent as compared to those living with step parents and even grandparents.

Studies on the well-being of children who have ever co-resided with grandparents are not as numerous as research on other alternative households. In particular, the potential impact of extended households with two biological parents in the United States is largely unknown, whereas research on Taiwan indicated that these households could be beneficial for children's academic achievement (Pong & Chen, 2010). Available studies on extended single-mother households had inconsistent findings.

## Co-residing with grandparents and academic aspirations

Some research support the idea that co-residing with grandparents can be advantageous for the academic attainment of children of divorced-as well as never-married mothers (Aquilino, 1996; DeLeire & Kalil, 2002). For example, in Aquilino's study, children born to never-married mothers were more likely to complete high school and to enroll in post-secondary education if they co-resided with grandparents at some point before age 15. Similarly, research by DeLeire and Kalil showed that compared to their counterparts from two biological parent families, eighth graders from extended households with never-married mothers were more likely to finish high school and to enroll in college. Also, controlling for income, eighth graders from extended households with divorced mothers were no less likely to finish high school and

to enroll in college than were youth residing with two biological parents (DeLeire & Kalil, 2002).

In contrast, a study by M. S. Hill, Yeung, and Duncan (2001), suggested that children co-residing with grandparents in single-mother households in late childhood, between ages 11–15, might complete fewer years of schooling. The discrepancies in findings can be explained in part by variations across studies in the children's ages, duration of a particular household structure, timing of co-residence with grandparents, and levels of education assessed.

Unlike the situation in other countries, many grandparents in Bosome Freho and by extension, rural Ghana, are mostly poor subsistent farmers or completely unemployed. Rural Ghanaian children residing with grandparents just by observation are seen to have low academic achievement, attainment and aspirations. Such children most often work to contribute to domestic income; a situation that does not create much time for academic work.

## Single-mother families

One of the most frequently studied subgroups of students from nontraditional families is the subgroup of students from single-mother families. Literature shows that students from single-mother families tend to underperform academically when compared to counterparts from traditional families (Hampden- Thompson, 2009; McLanahan & Sandefur, 1994; Waldfogel et al., 2010). Research suggests that being from a single-mother family presents pronounced academic challenges for male students, although the achievement gap between students from single-mother families and students from traditional families is apparent for both sexes (Zimiles & Lee,

1991). Being the largest subgroup of nontraditional families (Heuvelineet al., 2003), single-mother families warrant much attention. Hampden-Thompson's (2009), international research on student literacy compared students from two-parent households with students from single-mother families only.

Hampden-Thompson (2009) said, "These results indicate a pattern of under achievement for children who live with their mother only" (p. 520). Magnuson and Berger (2009), reported students from single-mother families in middle childhood experience depressed scores in both reading and mathematics when compared to students from traditional families in the same age category. Furthermore, Amato and Keith (1991) suggested custodial single-parent mothers may "underestimate" (p. 33) their children's problems in general. Perhaps the underachievement is perpetual in students from singlemother families due to lack of parental attention to the issue or parental inability to admit the severity of problems.

In general, single-mother families tend to have fewer books in the home, less parental education, and lower incomes than two-parent families (Hampden-Thompson, 2009; McLanahan & Sandefur, 1994). Noteworthy here is the literature that suggested parental separation (including cases of divorce) is more frequently the reason for single mother families than birth to a single mother (Heuveline et al., 2003), Assuming Jeynes' (2006).

As in the overall debate, an opposing view exists regarding students from single mother families. Pong (1998), said, "Once other family background factors are controlled, however, there is no evidence that living in single-mother families negatively affects children's achievement" (p. 36). Likewise, Marsh (1990) specifically reported neither male students nor female

34

students from single-mother families showed significantly lower academic test scores than students from two-parent families. Thus, even though the majority of the research suggests students from single-mother families were disadvantaged academically when compared to their counterparts from traditional families, critics have challenged the claim. Further research is needed to compare the achievement scores of specific subgroups of students from nontraditional families to one another and to students from traditional families as well.

# **Single-father families**

Similar to students from single-mother families, students from singlefather families tend to exhibit academic underperformance when compared to students from traditional families (Amato & Keith, 1991; Guidubaldi et al., 1986). Interestingly, Zimiles and Lee's (1991), work suggested females fare worse academically than males do in single-father families. Along with lower academic achievement, students from single-father families were linked in the literature to poorer access to health care as well (Leininger & Ziol-Guest, 2008). Interestingly, these results were consistent regardless of the singlefather family's poverty status. Students from single-father families were also associated with higher risks of drug and alcohol use when compared to traditional families and even single-mother families (Jenkins & Zunguze, 1998).

Although such indicators associated with single-father families were not directly linked to academic achievement, they may have had indirect effects on students' readiness levels for learning. Overall, there is substantially less research present in the field on single-father families than on single-

mother families. However, a critic with an opposing viewpoint still remains. Again, as with students from single-mother families, Marsh (1990), specifically investigated students from single-father families. Marsh's results showed no significant difference in the academic achievement of students from single-father families when compared to students from traditional families, as long as the single-father families were stable. This one piece of research suggests single-father families are not associated with negative effects on student achievement; however, no other recent scholarly work can be found in the literature to confirm Marsh's findings, though the presence of contradictory findings establishes the need for further research.

# Academic Achievements 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-academic 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 mother-headed households are less likely to complete high school or even attend college than the children who grow up with father-headed households (Amato, 1987). McLanahan (1986) asserted that one reason why children from mother-headed households were less likely to finish high school was 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 academic achievement (Sewell & Shah, 1968).

In a recent summary of the literature on parental time, Gauthier, and Monna (2008), found 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 nontraditional 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 academic 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 academic 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, (Forry et al. 2010) children of nontraditional 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 nontraditional family is causally linked with students drop-out and falling behind in school. The evidence shows that boys are especially vulnerable to negative academic influences of non-traditional households (Torche, & Spilerman, 2006). Differential responses to shocks

(Sax, 2006) or relatively less attention from (single) mothers (Gauthier & 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 & 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; Daniels, 1986; Downey, 1994; Downey, Ainsworth-Darnell, & Durfur, 1998; Fry & Scher, 1984; Milne, Rosenthal & 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).

# Parents' academic level and aspirations of children

Parents and other members of the household's academic level as well as aspirations have been found to have a significant effect on the academic aspirations of their children. The academic attainment of both parents represents two important aspects (Hill, 1979; Mare, 1980). Better educated

parents could influence their children's academic aspirations or they could spend more time with their children, thereby increasing their children's ability and ultimately their likelihood of remaining in school (Hill & Stafford, 1977).

This study agrees with the assertion that children of well-educated parents tend to have great aspirations for education and other aspects of their lives and usually attain high level of education. As to whether this is due to economic resources pooled by both parents due to their well-paying jobs or the sheer fact of their education is another subject to be considered. The mechanisms for understanding this influence, it seems 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 behaviours, 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 behavioural 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 behaviours in the home (for example reading, playing).

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

Studies on status attainment have shown that high academic 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 academic attainment (Sewell & Shah, 1968).

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

# Parents' careers and academic aspirations of children

The career fulfillment of parents have been found to play an important role in the academic aspirations of parents for their children as well as the academic aspirations held by the children themselves. Fathers who are unhappy with their jobs had higher academic aspirations for their sons than fathers who were satisfied with their jobs (Yang, & Shin, 2008).

The working-class mother whose occupational status is higher than her husband's is likely to come in contact with middle-class persons and to acquire middle-class values. If her husband's status seems unlikely to improve, she may attempt to realize her aspirations through her children by encouraging them to develop middle-class interests and objectives (Krause, 1997).

While several studies do not specifically address how a parent's aspirations for him or herself affect the outcomes of children, they do use measures of parents' values for education as important independent variables. The effects of household structure on children's academic outcomes can be shaped by numerous family factors. Research and theoretical perspectives suggest that socioeconomic resources and parenting are particularly important among these factors (Demo & Acock, 1996; Hill, et al., 2004). Furthermore, many children have been hindered from reaching their optimum level in academic pursuit due to some negative factors arisen from home. These include lack of parental encouragement, lack of conductive environment, poor finance and housing, poor feeding, ill-health and lack of interest on the part of the students. Children whose school needs (physical and emotional) are not provided for at home may forever remain underachievers and this could affect

the general development (physical and human resources) of the country. Effects of poor academic performance during the school years often carry over to the adulthood, with a higher proportion of school dropouts, behavioural problems and even delinquency among this population. Therefore, this study seeks to investigate the impact of family type on the academic performance of students in secondary schools. (Akomolafe, & Olorunfemi-Olabisi, 2011).

# Divorce

It is generally held that divorce has a negative effect on children's cognitive achievement. Deficits in cognitive achievement have been found when children in divorced or father-absent families are compared with children from intact families, particularly in the area of quantitative achievement (Allison & Furstenberg, 1989; Blanchard & Biller, 1971). Several factors account for such findings such as gender and age of the child, length of time since the divorce, and the type of cognitive skill tested for. There are again, poorer patterns of cognitive achievement among adolescents in divorced families (Forehand, Middleton & Long 1987; Zimiles & Lee, 1991".

However, the differences between divorced families and two-parent families are usually small and may decrease over time. They may disappear altogether when income, parental occupation or parental conflict are statistically controlled in analyses (Long, Forehand, Fauber, & Brody, 1987; Smith, 1990; Svanum, Bringle, & McLaughlin, 1982). So although some decrements are found in cognitive achievement after divorce, the data are not conclusive.

43

# **Parental Expectations**

Another issue that is found to influence children's academic aspirations is parental expectations (Parsons, Adler, & Kaczala, 1982). Generally, parents, as far as academic aspirations go, hold two expectations; i. Specific expectancies for school and academic achievement and ii. General expectancies and aspirations for the child's future. Whichever beliefs that a parent holds about a child's ability and the accompanying expectations for that child's future success or failure in different domains could be important mediators of family structure effects. Parental expectations for their children may also be thought of in terms of parents' hopes or goals for optimal future outcomes. It is therefore the wish of every parent to see the child educated to become marketable in the job market to help the child him/herself, the family and the nation at large.

# **Culture of Poverty**

The culture of poverty thesis or some descendent of it has been a part of social science and public policy discussions since the 1960's. In fact, one could argue that variations (predecessors) of the culture of poverty thesis have been around since the 1860's, when insidious misappropriations of Darwin's work dominated social science and public policy discussions regarding poverty (Steinberg, 2001). According to the culture of poverty thesis or any of its variants, intergeneration poverty is primarily the result of adults developing and passing along to their children or the children in their community attitudes (and corresponding behaviours) that are dysfunctional to life or success in mainstream society (Lewis, 1966; Solorzano, 1992). Lowered aspirations, fatalism or passivity, and feelings of helplessness, which, according to the

culture of poverty thesis, parents pass down to their children, are the primary mechanisms of intergenerational poverty. To be sure, poverty and the habits people acquire to survive in poverty may be what originally caused the dysfunctional attitudes parents have and pass to their children. However, according to the culture of poverty thesis, the attitudes themselves are primarily what facilitate intergenerational poverty.

Variations of the culture of poverty thesis include a variety of "underclass" or "deficit" models. Each of these models or theoretical explanations is unique with respect to identifying the cause of dysfunctional attitudes, values, or orientations among parents and children. Welfare dependency models, for example, attribute lowered aspirations and other selfdefeating attitudes to the reliance on public assistance programmes (Auletta, 1982; Murray, 1984; Solorzano, 1992). Some models point to different structural components, attributing negative orientations to macroeconomic trends, institutional and individual discrimination, and segregation or social isolation (Kozol, 1991; Kozol, 2005; MacLeod, 1987; Wilson, 1987).

Some models point to a unique confluence of historical and geographic factors (Batteau, 1980; Chenoweth & Galliher, 2004; Keefe, Reck & Reck, 1983; Obermiller & Maloney, 2002). However, each of these models ultimately identifies attitudes, values, or orientations as the primary mechanisms of intergenerational poverty. In an informal conversation with many school dropouts, poverty is cited as the cause of their inability to pursue academic aspirations in many Ghanaian societies. Poverty is therefore an integral factor in discussing educational achievement.

## **Cultural-ecological Perspectives**

Cultural-ecological explanations of academic aspirations are similar to variations of the culture of poverty thesis and social learning theories. According to cultural-ecological theories (like social learning theories), academic aspirations are socially and contextually developed dispositions or orientations (Bronfenbrenner, 1977; Bronfenbrenner, 1979; Ogbu & Simons, 1998). What's more, according to cultural-ecological theories (like variations of the culture of poverty thesis) there is a significant cultural component to the formation of academic aspirations. However, cultural-ecological theories distinguish themselves from variations of the culture of poverty thesis in a critical way. The culture of poverty thesis and its many variations propose that impoverished, isolated, or segregated people (that is, people living outside of a mainstream culture) develop a dysfunctional culture (including lowered aspirations) in order to survive. In other words, low academic aspirations are the result of how impoverished, isolated, or segregated people live and experience the world, regardless of how they became impoverished, isolated, or segregated. Cultural-ecological theories, on the other hand, propose that academic aspirations develop in response to a dominant culture, which can be either supportive or hostile (Behnke & Piercy 2004; Ogbu 1979; Ogbu & Simons, 1998). Academic aspirations do not reflect positive or negative selfattitudes that develop within or outside of mainstream society. Rather, they reflect a trust in or skepticism of (positive or negative attitudes toward) parts of a dominant culture that saturates society. Academic aspirations are not the result of how people live or survive in the world; they are the result of how

people feel they are treated by the dominant culture wherever they are in the world.

#### **Socioeconomic Resources**

Differences in family socioeconomic resources such as income, parental education especially maternal education can account for differences in lower academic attainment of children from alternative households (McLanahan & Sandefur, 1994). Families with higher socioeconomic status (SES) have more monetary and nonmonetary resources to cater for children's academic success (Davis-Kean, 2005). Socio Economic Status can be directly related to academic outcomes particularly through the availability of material resources in the family that have an impact on the quality of the child's home environment, school programs, and extracurricular activities (Morris & Gennetian, 2003).

Family socioeconomic situation is important to children's academic outcomes in part through family socialization, namely parenting behaviour and practices (Crosnoe & Cavanagh, 2010). Family Socio-Economic Status is for example associated with parents' ability and skills to promote children's academic success by fostering academic and occupational aspirations, by providing opportunities for learning outside of school, and by discussing with children academic strategies and plans for the future (Bianchi, Robinson, & Milkie, 2006). At the same time, low Socio-Economic Status has adverse consequences for academic attainment because parental stress associated with socioeconomic disadvantage leads to less engaged and less supportive parenting and because the lack of positive role models in households on

welfare may affect children's preferences for academic success, occupational achievement, and economic independence (Ku & Plotnick, 2003).

Households with two biological parents have higher levels of socioeconomic resources than do households with only one or no biological parent present. Fewer socioeconomic resources may however be available to children in extended households with two biological parents (Hill, et al., 2001; Pong & Chen, 2010), because the presence of grandparents in these households is generally linked to issues in the grandparent generation such as financial difficulties and poor health (Szinovacz, 1996). Stepfather households tend to have similar levels of socioeconomic resources as two biological parent families (Lichter, Roempke, Graefe, & Brown, 2003). In contrast, single-mother households are very likely to be disadvantaged in terms of financial resources and parental education, especially if the mother has never been married (Demo & Acock, 1996; Hill, et al., 2001). Nevertheless, if grandparents are present in single-mother households, children are substantially less likely to live below or near the poverty level (Mutchler & Baker, 2009). Yet, children residing in grandparents' households with no parents are at particular risk of living in poverty (Kreider & Fields, 2005).

Studies have shown that limited socioeconomic resources could completely or partially account for lower academic achievement and attainment among youth from single-mother households with and without coresident grandparents and from skipped-generation households (e.g., DeLeire & Kalil, 2002; Sun, 2003).

However, by working, parents sacrifice time with their children during the developmental years. As more parents proceed to join the work force,

hours spent with children have decreased dramatically. In 1965, the average child spent about 30 hours per week interacting with parents, but by the late 1980's this figure had dropped to about 17 hours (Haveman, 1993).

In addition, parents' education is a powerful predictor of their children's academic attainment (Haveman, 1993). This is more the case for mothers' education. Mothers with a higher level of education instill the importance of education in their children.

Although fathers' education is important, mothers have a greater impact on the values children later find important (Ermisch, 1997). Therefore, a mother's feelings on education will be portrayed to her children.

Through the mother's own decision to attain a higher level of education, her attitude is likely to be accounted for through her actions. Additionally, parents use their academic attainments to teach their children, thus increasing human capital directly.

Other research works have also proven that the presence of a stepfather in the household has a greater possibility of increasing their socioeconomic status or resources. Nevertheless, these resources may not be available for stepchildren's academic expenses, such as extracurricular activities and pursuing higher education, mostly because the stepfather may not have the desire to invest in children who are not their biological children.

On the basis of the economic vulnerability framework and prior research, we expect that when family income and maternal education are taken into account, the negative effects of alternative households for youth's academic attainment will be attenuated. In particular, these effects will diminish for young people from never-married mother households with and

49

without co-resident grandparents and from skipped-generation households, because in comparison with other alternative households, these living arrangements tend to have the lowest levels of socioeconomic resources. According to researchers, it is anticipated that compared to decreases in the effects of other alternative households, decreases in the effects of stepfather families will be less substantial, because the financial circumstances of single mothers are likely to improve after remarriage (King, 2006).

## Socialization Resources

Socialization resources refer to parents' or other family adults' behavioural and psychological involvement of children's education. Many researchers have found that, regarding children's achievement, effects of socialization on children's academic achievement were independent of those of socioeconomic status (Lee, 1993).

Parents may be involved in children's learning in many ways, such as the home-based involvement of monitoring after school activities, monitoring school studies, and advising on studying strategies; or the school-based involvement of directly intervening in school administration by changing classes or tracks assigned for the children, selecting teachers or talking to teachers on behalf of the child. These actions are generally found to benefit children's learning achievement (Ho & Wilms, 1996). In fact, monitoring children's home activities was constantly found to be positively related to their achievement (Crouter, & MacDermid, 1990; Muller, 1993). In general, singleparents and stepparents tended to provide less supportive parental practices for children's schooling (Cooksey & Fondell, 1996; Thomson & Lee 1993). In comparison with parents of intact families, they monitored their children less

(Dornbusch et al., 1985; Muller & Kerbow, 1993) and tended to involve less in children's schools (Nord & West, 2001).

Persuading children into taking more academically oriented courses or intervening in school administration by changing class or teachers are two aggressive types of involvement. Gamoran (1987) found that the high correlation between family socioeconomic status and achievement dropped dramatically once the course taking strategies were taken into consideration. Most of the time, parents were the hands behind such strategies. Baker & Stevenson (1986), Lareau (1987), and Stevenson and Baker (1987), traced the effect of family socioeconomic status on achievement to such parent actions. Useem (1992), also found that the higher the mother's education is, the clearer she is about the importance of selecting classes and courses. Such mothers are also likelier to talk children into selecting more demanding courses and to actively try to understand school affairs and intervene in school decisionmaking processes. For such form of involvement, parents of intact families again can afford more time and efforts than single-parents and are more concerned than stepparents (Useem 1992). Researchers have also examined parental expectations for children's academic achievement.

Parents' academic expectation for children has been repeatedly found to be positively related to the children's achievement outcome (Astone & McLanahan, 1991; Entwisle & Alexander, 1996). Several studies even found that parents' stated expectations had predictive power for their children's achievement a few years later (Entwisle, Alexander, & Olson, 1997). One important reason is that parents with high expectations do more than having positive and encouraging attitudes toward the children. They also provide

resources (such as buying books, puzzles and games, telling stories, and going to the library) to help developing the cognitive ability, so that the children can live up to the expectations. Thus parental expectation is, to the children, another form of resource in addition to economic capital and human capital.

In contrast to families with two biological parents, single parents are usually pressed by the burden of living and thus cannot afford much time and support for the children. They are also stressed out with frustrations of all kinds, have lower self-esteem and likewise have lower expectations for the children. Children in stepfamilies are also at a disadvantage because they cannot access the resource that parents hold. The parent-child relationship in stepfamilies is usually more distant than in the former two types of families. Parents usually provide less support and thus have lower expectations for the children. In short, whether the single-parent cannot afford enough or the stepchild cannot access, children in these two types of families receive lower academic expectations and obtain lesser the accompanying socialization for them to adjust in school (Astone & McLanahan, 1991; Entwisle & Alexander, 1996).

Grandparents, in addition to two biological parents in the family, may or may not be a blessing for the grandchild's socialization. On the one hand, the co-residence of grandparents in the intact family might cause tension because of conflicts between the first two generations in aspects of habits, ways of thinking, and parenting principles (Kung, 1999). Such tension might divert parents' attention away from the child or produce conflicting normative expectations for the child, in which case the child might be at a loss and on the loose. An earlier study in Taiwan also found that multigenerational families

often were more hierarchically structured than nuclear intact families, the former providing more external control for the grandchildren and thus less opportunity for the grandchildren to develop intrinsic motivation, which might also interfere with the grandchild's achievement (Olson, 1974). These possibilities make the grandparents in an intact family a possible liability.

On the other hand, co-residing grandparents may provide more psychological support for the grandchildren as well as for the adult son (or daughter), help convey parents' expectation and advice to the grandchild, and constantly monitor the grandchild's activities at home. There are quite a few pieces of evidence of grandparents providing extra care for the grandchild in the U.S. literature, though most of it is in the context of single-parent families. For example, Geronimus, (1997) found that grandparent(s) nurtured children of single mothers living with their own parent(s) by providing financial support for the children and taking care of the grandchildren.

Although studies found that, teenage mothers living with their parents were often the worst adjusted of the peers, least able as well as least motivated to live independently (Chase-Lansdale & Brooks-Gunn, 1994), children of such mothers developed better in kindergarten in terms of cognitive, emotional, and behavioural aspects in comparison with those living with teenage mothers that did not live with their parents. (Leadbeater & Bishop, 1994). Deleire and Kalil (2002), also found that children living with their single mothers and with at least one grandparent could have academic and other developmental outcomes as good as or even better than those living in nuclear intact families. Aquilino (1996), found that adolescents of single parents living together with grandparents had lower high school dropout rates

than those of single parents not living together with grandparents. Several studies in Taiwan also showed that grandparents who cohabitated with their adult children helped with household chores (Lee, 1994) and assisted in caring for the grandchildren, especially when the mothers were in the labour force (Hu & Chou 1996).

# **Network Resources**

Network resources such as relatives outside the family (Shavit & Pierce, 1991), neighbourhoods (Entwisle, Alexander & Olsen, 1994), or schools (Ho & Wilms, 1996), were found to benefit the child's academic achievement, by providing support to the adults, supplementary monitoring of the children, as well as better facilities for learning such as the library and parks. With the disappearance of the spouse, however, single-parents lose potential resources from relatives of the spouse. Moreover, pressed with the load of livelihood, single-parents are less likely to pay attention to the management of networks with friends and relatives. As a result, they are less likely to obtain resources or information from the networks of relatives or other parents. Since it has been found that the step-parents are less involved in children's schools (Nord &West, 2001), it is reasonable to assume that stepfamilies also have less opportunities to involve in sharing and obtaining information beneficial to the children. The presence of grandparents, on the other hand, may give additional linkage to relatives and schools and, hence, contribute to grandchildren's learning.

# **Economic Theories of Academic Aspirations**

There exists a few Economic explanations of academic aspirations. However, these theories also share an important characteristic. They all treat academic aspirations as products of conscious calculations (deliberations, judgments, estimations, etc.). In this view, academic aspirations are the result of some kind of analysis of perceived costs, risks, and benefits of education. Although structural and cultural factors might play a role in arriving at academic aspirations, their role in economic explanations is extremely limited compared to the role they play in social-psychological explanations.

In models of aspiration-based reinforcement learning, agents adapt by comparing payoffs achieved from actions chosen in the past with an aspiration level. Though such models are well-established in behavioural psychology, only recently have they begun to receive attention in game theory and its applications to economics and politics. We describe different models of aspiration formation: where (1) aspirations are fixed but required to be consistent with long run average payoffs; (2) aspirations evolve based on past personal experience or of previous generations of players; and (3) aspirations are based on the experience of peers. Indeed, cooperative behaviour can emerge and survive in the long run, even though it may be a strictly dominated strategy in the stage game, and despite the myopic adaptation of stage game strategies. Differences between reinforcement learning and evolutionary game theory are also discussed. (Bendor, Mookherjee, & Ray, 2001).

# **Human Capital**

The human capital theory says that non-compulsory education is one of a variety of options for investing in one's future. Whiles making a choice among various investment alternatives, individuals behave as though they are performing an assessment of the returns associated with each alternative. Investment in education occurs if the expected returns compare favorably against existing alternatives, such as full-time employment (Becker, 1993). Academic aspirations therefore represent calculated investment goals. The level of education to which an individual aspires is the level of education that individual believes will provide him or her with the greatest economic returns, given his or her resources (e.g. intellectual ability, ability to pay tuition, etc.) and the perceived costs (e.g. tuition, time away from work) and benefits (e.g. credentials or skills that earn a higher income) (Davies, Heinesen & Holm, 2002). In all these discussions, one major factor is education, (which prepares the person mentally, psychologically and emotionally) without which the human resource base cannot be developed for such future economic returns.

# **Rational Action / Choice**

Rational action or rational choice theories originate from economics and have been given considerable attention from sociologists over the last thirty years or so. Thus, the theoretical field and subject areas related to rational action theories are both wide and deep. However, despite the many theoretical debates and many nuances that accompany such debates (Goldthorpe, 1998), it would be fair to say that rational action or rational choice theories are theories of action or choice that presume individuals make choices or act based on a rational (reasoned, coherent, measured, thought

through, etc.) process of weighing the potential costs and benefits of each choice or course of action. So (like with human capital theory) academic aspirations represent calculated investment goals (Breen & Goldthorpe, 1997).

Rational action or rational choice theories at a first glance actually do sound very similar to human capital theory or other economic costs/benefits analyses. Both consider behaviors, action, or choices as products of conscious calculations. However, unlike human capital theory, rational action or rational choice theories do not limit themselves exclusively to the economic aspect of things (Goldthorpe, 1998). They go beyond considering only economic costs and benefits. These theories incorporate a variety of non-pecuniary "goods" and valuations of them. Furthermore, unlike human capital theory, which focuses exclusively on the role individuals play in making investment decisions, rational action or rational choice theories attempt to address to different degrees, the role that structural forces play in influencing the choices individuals make or actions they take. Rational action theories attempt to participate in broader sociological conversations regarding individual versus structural forces, social stratification, and the maintenance or consistency of social stratification (Coleman, 1990; Goldthorpe, 1998), in ways that human capital theory and other economic theories do not. One of the ways in which scholars have further developed rational action theories has been to establish specific theories of action or choice for specific domains, outcomes, and environments. In view of the popularity of rational action theories among sociologists in the late 1980's and 1990's, the range of specific action or choice theories is great. Included in this wide array is a rational action theory of education (Breen & Goldthorpe, 1997).

Breen and Goldthorpe's rational action theory of education is the most well-known and most tested RAT theory of education. It proposes that students and families establish academic goals and make academic decisions based on considerations of costs, potential benefits, and perhaps most importantly, risks associated with each decision. The results of failing to complete an academic endeavour (that is, incurring the costs and forgoing the benefits) can be lasting and severe for students and their families. Also, the severity of those consequences will vary by class. The consequences, for example, of a bad academic decision or failure to complete an academic goal are far less severe for a family with the means to "re-invest" than for a family with the means to make one "good" or "bad" investment. Therefore in order to account for class-based differences in various academic outcomes, Breen and Goldthorpe add a class-based "relative risk aversion" hypothesis to their otherwise somewhat standard rational action theory. Parents and families are encouraged to take their children's education seriously to prepare them adequately for the future, thereby enhancing a good future for them.

# Parenting

The socialization perspective maintains that consistent and supportive parenting is associated with better outcomes for children and that the presence of two adults in the household is important for adequate parenting (McLanahan & Sandefur, 1994). Furthermore, it is suggested that variations in family processes such as parenting behaviors and practices can account for differences in children's academic attainment across household structures (Crosnoe, Mistry, & Elder, 2002). Generally, in addition to greater socioeconomic resources, greater investments of parental time, attention, and

support are available to children in two biological parent households (Amato, 2005).

Extended households with single mothers and stepfather households may also have some disadvantages for parenting quality, however. For example, because their parenting roles are relatively tenuous, co-resident grandparents, as well as stepfathers, may have more conflict with mothers over parenting practices and less authority over children than biological parents. At the same time, extended households with single mothers can be associated with more involved and supportive parenting than stepfather households. Because they are biologically related, grandparents may have more interest in the children's well-being and may develop a more secure attachment and a more stable emotional bond with them than stepfathers (Kivett, 1991). Children, in turn, can find it easier to adjust to coresident with grandparents than with stepfathers, partly because they are less likely to perceive grandparents as competitors for the mother's time and attention (Astone & McLanahan, 1991).

In contrast, stepfathers may be less involved with their stepchildren for several reasons, including little institutional support for the stepparent role, stepfathers' responsibilities to children from previous marriages, a tendency for parents to invest less in nonbiological children, and children's rejections of stepfathers (O'Connor, Dunn, Jenkins & Rasbash, 2006). Stepfather households may also be related to children's weaker relationships with the mother because she has to devote some of her time and attention to the stepfather. But stepfather households may become gradually more beneficial for children as the family adapts to new roles and routines (Wagmiller,

Gershoff, Veliz & Clements, 2010). Over time, increased family socioeconomic resources, involvement of stepfathers with their stepchildren, and an enhanced family environment, including more parental support and supervision, may lead to better outcomes of children.

Grandparents' parenting skills and practices in skipped-generation households have not been investigated extensively. However, available research indicated that grandparents' parenting behaviors might be contingent on several interrelated factors in addition to those that can have implications for parents' childrearing (Goodman, 2007). These factors can include grandparents' health, their relationships with the child's biological parents, and the circumstances under which grandparents assumed responsibility for their grandchildren.

Following prior research, the present study considers several aspects of parenting that were found to make a difference in children's academic outcomes, including the quality of the parent-child relationship (Astone & McLanahan, 1991). Parental control also has an influence on the level of education a child could attain. How parents control or monitor their wards' actions has a direct or indirect effect on their academic aspirations (Brown & Lyengar, 2008). Number of times a child is being fed is also another factor that cannot be underestimated. A child who is not served with frequent family meals is likely to be disturbed and could affect his studies (Eisenberg, Olson, Neumark-Sztainer, Story & Bearinger, 2004).

Parental knowledge of children's school activities help the family monitor and advise their children on their expectations. Cases where parents keep track of their child's academic achievements have a greater possibility of

60

making the child improve upon his achievement (Harris & Goodall, 2008). Parental academic expectations also play a major role in children's academic attainment. Families that set targets for their children to achieve particular qualifications, also influence children's expectation and achievement (Davis-Kean, 2005). Stephenson, Quick, Atkinson & Tschida, (2005) state that Parents who personally know their child's friends and the friends' parents helps in monitoring the child's development. Prior research found that the association between household structure and children's academic attainment were partly accounted for by parenting (Astone & McLanahan, Ermisch & Francesconi, 2001; Sun, 2003). Some studies, however, demonstrated that parenting, despite its importance, did not mediate these associations (Deleire & Kalil, 2002; Dunifon & Kowaleski-Jones, 2002).

In keeping with the socialization theory and prior research, we expect that when parenting quality is taken into account, differences in academic attainment between children from nuclear households with two biological parents and alternative households will diminish. We anticipate that compared to other alternative households, parenting quality is more likely to reduce these differences for youth from skipped-generation households, single-mother families without co-resident grandparents, and stepfather families.

## Parent's time with children

Ermisch and Francesoni (2000), completed two papers built on the household production model addressing the association between childhood parental employment, parental education levels, and subsequent education of children.

Their findings show that time and money made available to a child affect the child's academic attainment. Children whose mothers work more during their children's early stages of life have less academic attainment compared to children whose mothers spend more time at home with them (Ermisch, 2000). It is unclear whether this means that time is more important than money and other resources.

However, by working, parents sacrifice time with their children during the developmental years. As more parents proceed to join the work force, hours spent with children have decreased dramatically.

In 1965, the average child spent about 30 hours per week interacting with parents, but by the late 1980's this figure had dropped to about 17 hours (Haveman, 1993). In addition, parents' education is a powerful predictor of their children's academic attainment (Haveman, 1993). This is more the case for mothers' education. Mothers with a higher level of education instill the importance of education in their children. Although fathers' education is important, mothers have a greater impact on the values children later find important (Ermisch, 1997). Therefore, a mother's feelings on education will be portrayed to her children.

Through the mother's own decision to attain a higher level of education, her attitude is likely to be accounted for through her actions. Additionally, parents use their academic attainments to teach their children, thus increasing human capital directly.

## Gender and academic aspiration

The implications of certain household structures on child outcomes may vary by children's gender (Ram & Hou, 2005). The essence of Gender in

modern day human endeavor cannot be underestimated. In terms of academic attainment, sex has been found to play significant roles according to various studies. Children are more likely to identify with and to internalize the attitudes, beliefs, and values of the same-gender parent. There exist several studies that specifically examined gender differences in children's academic attainment across various household structures.

Housework done by boys and girls mirrored that of adults, with girls doing stereotypical "female" chores and spending more time doing house work than boys and the effect was that girls' academic achievement was less than that of boys (Benin & Edwards, 1990; Berk, 1995). Female low achievers in Ivory Coast were found out to leave school in large numbers in the lower grades (Assie-Lumumba, 1987). She explains that besides the higher demand on girls domestically, they must as well as boys if not better to stay in school. However, Parents with University education in some societies influence the education of their female children positively. Female children of such University educated parents aspire to be like their parents and are also given the opportunity of higher education.

In Thailand, parents' academic aspirations for sons were found to be higher than that of daughters. Shavit and Pierce (1991), also found that education for gender groups is diluted more by boys than girls. It is also generally observed that gender discrimination is higher among religious groups and has been found to have a high prevalence among Muslims. Kaneko (1987), found out that the proportion of women with no schooling is consistently higher than that of men, ranging from 20.7% to 72.2% (the Middle East and North Africa having the highest percentage and East Asia and

the Pacific having the lowest) and showing gender disparities greater than 11% points in four of the five commonly identified developing areas.

The gender-specific parenting practices and a strong bond with the mother can protect daughters from potential adverse effects of residing without a father figure (Aquilino, 1991). In contrast, in stepfamilies, boys seem to benefit from the presence of a man in the household, whereas girls often find it difficult to establish a non-conflictual relationship with a stepfather (Blaauboer & Mulder, 2010). Some studies, however, did not observe any gender differences in child outcomes in single-mother and stepfather households (e.g., Fischer, 2007), or found stronger negative effects for daughters in divorced-mother families (e.g., Cooney & Kurz, 1996). Similarly, some studies found inconsistent gender differences in extended and skipped-generation households (Aquilino, 1991; Dubowitz & Sawyer, 1994), whereas others did not find any differences (Sun, 2003).

# Social-psychological Factors

Researchers have identified the effects of a handful of socialpsychological factors on students' academic aspirations (Mau & Bikos, 2000). Students' academic aspirations are influenced by their self-esteem, locus of control, and satisfaction with or sense of belonging at school.

Research also reveals that students' social-psychological characteristics determine the effects on their socioeconomic status characteristics on their academic aspirations (Marjoribanks, 2002). In spite of the large literature that lays bare the fact that students' social-psychological characteristics play an important role in shaping their academic aspirations, research has largely left parents' social-psychological characteristics

unexamined. Kaplan (2001) found that parents' "self-feelings" might have an effect on the academic expectations they have for their children (Kaplan, Liu & Kaplan, 2001). The results of one study with all its limitations however may hardly make a dent, in a general or nuanced debate regarding the nature of parents' academic aspirations for their children. With the significant role parents' and students' social-psychological characteristics play in many theoretical explanations of academic aspirations and other education based outcomes, further studies of parents' social-psychological characteristics are required urgently.

## Social-psychological Theories of Academic Aspirations

Social-psychological explanations of Academic aspirations take a range of forms. However, they conjointly share a crucial characteristic. Each theory identifies academic aspirations as dispositions (orientations, outlooks, desires, states-of-being, etc.), instead of strictly economic calculations. In view of this, academic aspirations are a combination of beliefs and feelings about the world and concerning one's self. It also has to do with physical, cultural, emotional, and formal and informal instructional environments, and a period of observations of and interactions with spouses, caregivers, peers, and strangers. Academic aspirations don't seem to be the product of fully aware and fully rational economic issues.

## **Social Learning**

Social learning theory (also known as social cognitive theory or observational learning theory) (Bandura 1977; Bandura 1986) is utilised as a theory of learning that incorporates interpersonal, academic, familial, and environmental factors. It is also employed as a theory of motivation that

accounts for an individual's contextually learned locus of control, sense of self-worth, and expectations of intrinsic and extrinsic rewards and punishments. Social learning theory is based on the premise that most of our learning involves observing the people and events around us. We learn behaviours and are (or are not) motivated to engage in similar behaviours by observing the behaviours of other people and observing the consequences of same. Academic aspirations hence reflect a person's motivation to succeed, which is developed through a lifetime of observations and experiences. Social learning theory and other forms of it make up the theoretical fundamentals for several studies of students' academic aspirations and a several other academic outcomes (Farmer, 1985).

Welfare dependency models, for example, attribute lowered aspirations and other self-defeating attitudes to the dependence on public aid programs (Solorzano, 1992). Some models point to different structural components, ascribing negative orientations to macroeconomic trends, institutional and individual discrimination, and segregation or social isolation (Kozol, 1991). Some models point to a unique set of historical and geographic factors (Chenoweth & Galliher, 2004). However, each of these models mainly identifies attitudes, values, or orientations as the primary mechanisms of intergenerational poverty.

The primary environment of the students is the home and it stands to exert tremendous impact on students' achievements (Nyarko, 2010). Moreover, the home is the primary agent of education in the child. Thus, the way the child lives, the food he/she eats and his/her life style is influenced by the home. The type of family system the child is exposed to could influence

66

his academic achievement in school. Academic success of a child depends on what parents do at home and therefore parent-child interactions are forces that lead to better academic performance.

In a study conducted on the effects of family structure and parenthood on the academic performance of Nigerian University students, Uwaifo (2009) found significant difference between the academic performance of students from single-parent family and those from two-parent family structure. He also noted that the school is responsible for the experiences that make up the individual's life during school periods. Indeed, parental involvement and individuals' experiences at home play tremendous roles in building the personality of the child and making the child what he is (Uwaifo 2009).



#### **CHAPTER THREE**

## **RESEARCH METHODS**

# Introduction

This chapter discusses the methods employed in the study. These include the research design, population, sample and sampling procedure, research instrument, variables and their measurement, pre-testing, data collection and analysis procedure.

# **Research Design**

Research design describes the basic structure of a study, the nature of the hypothesis and the variables involved in the study (Gay, 1992). Mouton (2001), defines research design as a plan or blueprint of how one intends to conduct the research. It provides procedural outline for the conduct of any investigation. It thus reflects the plan that specifies how data relating to a given construct should be collected and analysed.

For the purpose of this study, the descriptive design was used. Descriptive design involves collecting data in order to test hypothesis or answer research questions concerning the current status of the subject of study (Gay, 1992). According to Kulbir (2009), descriptive design is a research design that seeks to find factors associated with certain occurrences, outcomes, condition or types of behaviours. Also, Osula (2001), noted that descriptive survey is versatile and practical, especially to the researcher in that they identify present needs. He further notes that descriptive research is basic for

all types of research in assessing the situation as a prerequisite for conclusion and generalisation.

It is a scientific tool where relationship between variables are determined and follow up questions can be asked and items that are not clear can be explained, and since the population is usually large, it enables the researcher make generalizations based on the representative sample chosen. Not only is descriptive survey objective, it also observes, describes and documents aspect of a situation as it occurs naturally. The descriptive design makes use of randomisation so that errors may be estimated when population characteristics are inferred from observation of samples (Wallen, 2000).

The design is seen as appropriate for the study because:

a) The nature of the topic requires that data is collected through self-report measures and

b) Large amounts of data can be collected within a short period of time.

This design helped to collect data by asking respondents questions about the influence of family structure on students' academic achievement. The main difficulty with the design, however, is demand characteristics, as respondents try to give responses in ways that reflect their idea of what responses the researcher wants from them. Despite the inherent disadvantage, it was deemed the most appropriate design for this study. This study is descriptive in nature because it will be carried out to investigate the influence of family structure on students' academic achievement. It simply specified the nature of the given phenomena with a description of the situation using a specified population.

## The Study Area

Bosome Freho District is one of the twenty-seven (27) districts in the Ashanti Region of Ghana. Its capital is Asiwa. The Bosome Freho District is located in the rural forest ecological zone of Ghana at the South Eastern part of the Ashanti Region. It is bounded on the north by Bosomtwe and Ejisu-Juaben Municipal Assembly as well as water body named Lake Bosomtwe; on the East by Asante Akim South District, South by Adansi South District and Birim North District in the Eastern Region and on the West by Bekwai Municipal Assembly and Adansi North District. The district covers a land area of 630 square kilometres with the North-South stretch from Bosomtwe District to Adansi South District being the longest. The Bosome Freho district is positioned within latitude 6000'N and 6026'N and longitude 1000W and 1030W. It covers a total land area of about 630 square kilometres of the land area of 24,389 square kilometers of Ashanti region representing about 2.6% of the region's total land size. Residents within the districts are mainly farmers whiles others trade between the district and the Ashanti regional capital; Kumasi. The district has forty-two basic schools and four secondary schools.

# Population

Gay (1992), defined population in research as the group of interest to the researcher, the group over which he/she would like the results of the study to be generalised. He further explained that the defined population has at least one characteristic that differentiates it from other groups. According to Polit and Hungler (1996), a study population reflects the entire aggregate of cases that meet a designated set of criteria. It is the subjects the researcher wishes to make generalisations of his findings to. Bryman (2001), defines population as

any set of persons or subjects that possess at least one common characteristic. According to Johnson (1994), respondents in a population must possess the information required for the study.

The target population for this study was all public Senior High School students in the Bosome Freho District of the Ashanti region. The total number of public SHS students in the district was 4,667 students. The accessible population was all three public Senior High School form two (2) students in the Bosome Freho District. The total number of the form two students was 1,365 (GES, Bosome Freho District, 2018). The distribution of the accessible population is presented in Table 1.

Table 1: Distribution of Accessible Population for the Study

School	Boys	Girls	Total students
Bosome SHS	460	457	917
St Joseph Sec Tech	61	51	112
St Sabastian SHS	177	159	336
Totals	698	669	1,365

Source: GES, Bosome Freho District (2018)

# **Sampling Procedures**

According to Sarantakos (1998), sample consists of carefully selected subjects of the units that comprise the entire population. Sarantakos (1998), sees sample as a subset of a population to which the researcher wants to generalise the results. Sampling techniques and procedures refer to the methods used to select sample from the target population. The process of

selecting a portion of the population to represent the entire population is known as sampling (Polit & Hungler, 1999).

The sample consisted of 341 students, thus 25% of the senior high school students in the Bosome Freho District was selected for the study. This was in line with the suggestion of Asamoah-Gyimah and Duodo (2005), that for quantitative studies, a sample size of 10% to 30% of the population size is sufficient for generalisation purpose.

The census sampling technique was used to select all the public Senior High Schools in the district for the study. Also, purposive sampling was used to select only form two students in the schools. This was because the researcher believed that students in form two were in the best position to provide responses to the issue under consideration. The form three students were preparing for their final examination and also the form one students were adjusting to their new environment. Moreover, to obtain an equivalent proportion of participants from the schools, Babbie's (2001), formula was used to determine the sample selected from each school. The formula is presented below;

> $s = (\underline{n}) \times k$ NOBIS

where

S represents the number of students selected from each school

**n** represents the total population of form two students in each school

N represents the total population of form two students in all the 3 schools

**K** represents the total number of students needed to conduct the study

Table 2 shows the breakdown of the sample size of the students.

School	Number of Students	Sample from each school
Bosome SHS	917	229
St Joseph Sec Tech	112	28
St Sebastian SHS	336	84
Totals	1365	341

### Table 2: Distribution of the Sample Size

Source: Field survey, (2018)

# **Data Collection Instruments**

The instruments used to collect data for the study were academic performance tests in the four core subjects studied at the Senior High Schools in Ghana and questionnaire developed by the researcher. The questionnaire was used to gather primary data. The questionnaire comprising only closeended items were administered to the respondents. The close-ended questions offered alternatives from which the respondents involved in the study chose the answers they esteemed suitable. The questionnaire was put into three sections. Section 'A' focused on the socio-demographic and academic background of students. Seven items were constructed to collect this information. Section 'B' solicited information on household characteristics. Items numbered eight to fifteen helped collect data for this purpose. Section 'C' was the last section of the instrument. It solicited information on whether socio-economic status of parents influenced academic achievement. Items numbered 16 to 23 helped serve this purpose. The items on the instrument were used to achieve the objectives of the study. The questionnaires were largely administered by the researcher and his two assistants through face-toface sessions with the respondents.

Academic achievement tests were administered to measure students' performance. The test items were constructed by the Centre for Performance Monitoring and Evaluation, a consultancy centre in Accra and were based on the Senior High School form two syllabi in Mathematics, English Language, Social studies and Integrated science. The mean score of each student in the four subjects were computed and used as the academic achievement of the students.

### **Academic Achievement Test: Mathematics**

This was a forty-five minute test and was made up of thirty (30) objective items. The test items were made up of a stem and four options from which the respondents were expected to select the correct response. All the test items carried equal marks and were scored out of one hundred marks

## Academic Achievement Test: English Language

This test consisted of four sections (A-D) and had thirty (30) items. Section 'A' required students to choose the option which most suitably completed each sentence. This section had fifteen items. There were five items in Section 'B'. These focused on synonyms. Items in section 'C' required students to choose from the options the word or phrase that best explained the underlined group of words. Section 'D' contained antonyms. All the items on the test carried equal marks and were scored out of one hundred. The test was written within forty-five minutes.

## Academic Achievement Test: Social Studies

This test consisted of twenty-five items. The items had a stem and four options from which the respondents selected the most appropriate answer. The test was written within thirty minutes and was scored out of one hundred marks

## Academic Achievement Test: Integrated Science

This assessment test was made up of 25 objective items. Each of the items consisted of the stem and four options from which the respondents selected the most appropriate option that met the demand of the stem. The test was written in thirty minutes and was scored out of one hundred

# Validation of Research Instruments

In order to determine both the face and content validity of the questionnaire, it was given to my supervisors for their assessment, comments and suggestions. The academic achievement tests in Mathematics, English Language, Social Studies and Integrated Science were constructed by the Centre for Performance Monitoring and Evaluation, a consultancy organisation in Accra that constructs test items for Schools in Ghana.

## **Pilot Study**

The questionnaire was piloted at Foase Senior High School, a school in the Asante Akyem South District of the Ashanti Region of Ghana on 12<sup>th</sup> March, 2019. This exercise was done to establish the internal consistency reliability of the instrument. This was done in order to identify if there were any difficulty, ambiguity, poorly worded items or if instructions to the respondents were not clear. Any reported ambiguity or difficulties in the items were corrected before the final instrument was administered for data

collection. The instruments were administered to forty five (45) form two students all from Foase Senior High School. The choice of forty five (45) Senior High School form two students was because the researcher felt they could help strengthen the instruments for the study. The data was subjected to computer analysis to establish a Cronbach's Alpha value. The results of the pilot tests are shown in Table 3.

Table 3: Reliability Measure of the Questionnaire for Students

Scales		Cronbach's	alpha coefficient
Househ	old characteristics	0.85	
Socio-ec	onomic status of parents and	0.77	
students'	performance		
Source:	Field Survey, (2018)		

The results in Table 3 showed that the values obtained from the analysis of the pilot study were above the minimum acceptable reliability alpha value of 0.6. On this basis, the questionnaire was used to collect data for the study.

## **Data Collection Procedures**

Permission was sought from the District Directorate of Education to visit the schools. After the initial visit, a rapport was established to afford the researcher the opportunity to carry out the research. Permission was also sought from the headmasters to meet the students. The researcher personally administered the instruments with two trained research assistants. At each of the Senior High Schools, all the selected students were gathered in a

classroom. The purpose of the study was explained to them after which the research instruments were distributed to them.

Data was collected through the use of pseudonyms. The researcher and the assistants first numbered the students who participated in the study as well as the questionnaires and ensured that the questionnaires were answered according to the order of the arrangement. The same arrangement was used to conduct the test. This was done to allow the same student who answered the questionnaire numbered one to also answer the academic achievement test instruments numbered one in all the four core subjects.

On the first day, the academic achievement test in mathematics was the first test administered. It was followed by the academic achievement test in English Language. A break time of fifteen minutes was given to the students. The respondents were expected to spend 45 minutes each on the Mathematics and English Language tests.

On the second day, the academic achievement tests in Social Studies and Integrated Science were administered to the respondents. The final instrument that was administered was the questionnaire. The respondents were expected to spend 30 minutes on each of the tests and 25 minutes on the questionnaire. The researcher and the two assistant researchers spent six days to finish administering the instruments.

# **Scoring of Instruments**

The items on the Academic Performance Tests in Mathematics, English Language, Social Studies and Integrated Science tests were scored out of one hundred (100) marks. Each of the test items on the Social Studies and Integrated Science had a maximum score of four (4). In these tests, a student

could score a maximum of 100, (4x25) marks and a minimum of zero 0, (0x25). The test items on the Mathematics and English Language were scored by dividing the obtained mark of the student by 30 and multiplied by 100. On this test, a student can score a maximum of 100,  $[(30\div30)\times100]$  marks and a minimum of zero 0,  $[(0\div30)\times100]$ . The mean score of each student in the four subjects was computed and used as proxy for the academic achievement of the students.

# **Ethical Consideration**

Research ethics refers to the correct rules of conduct necessary when carrying out research. It describes the need for participants to understand the aims, objectives and potential harm that such involvement may have on them (Seidman, 2006). It also spells out that they have the right to withdraw even after consent has been given. This is in line with Cohen et al (2000), and Mertens, (2010), who stated that informed consent arises from the participant's right to freedom. Researchers have moral responsibility to protect participants from harm. The primary responsibility for the conduct of ethical research lies with the researcher. Researchers have a responsibility to ensure as far as possible that the physical, social and psychological well-being of the research participant are not detrimentally affected by the research. Research relationships should be characterized, whenever possible, by mutual respect and trust. In this study, the purpose of the study was carefully reviewed with each participant before they were involved in the research.

Punch (2008), was of the opinion that researchers should be mindful of ethical issues especially in social research because it is concerned with data about people. Consideration for moral issues and respect for participants is

essential in social research. Hence, in this research, several ethical issues were taken into consideration. The research addressed all ethical concerns which include informed consent, anonymity and confidentiality.

I obtained informed verbal consent from the students before commencement. The participants were made aware that their participation was voluntary, and that they were free to decline or accept to engage in the research. Anonymity of study respondents was highly taken into consideration in the present study. Oliver (2010), pointed out that anonymity is a vital issue in research ethics because it gives the participants the opportunity to have their identity concealed. In this research, fictitious names were used for identification purposes which could not be traced to the participants. Codes were also adopted where necessary to ensure anonymity of information. In order not to unnecessarily invade the privacy of participants, I made prior visits to the schools to seek for their consent before the data collection commenced. Neither names nor any identifiable information from respondents were taken as a way of ensuring the ethical principle of anonymity. This was to prevent possible victimization of respondents where certain responses may be viewed as unpalatable to other stakeholders.

On the issue of confidentiality, efforts were made to maintain confidentiality of the responses of the participants. Participants were told that their responses would be kept confidential and that no one known to them would have access to the information provided and none of the respondents names were recorded in the study.

Most importantly on the ethical issues of the study, pieces of information that were cited from earlier studies to support the review of

79

related literature was duly acknowledged through both citation and referencing, in order to avoid academic dishonesty otherwise known as plagiarism.

## **Data Processing and Analysis**

Analysis of data provided facts and figures that enabled me to interpret results and make statements about the findings of the study. The data was collated and edited, in order to address questions that have been answered partially or not answered. For effective statistical presentation and analysis, the questionnaires were serially numbered to facilitate easy identification. It is necessary to observe this precaution to ensure quick detection of tiny errors when they occur in the tabulation of the data. Responses to the various items in the questionnaires were added, tabulated and statistically analysed. All items of the questionnaires were coded. Items in the form of four point Likert scale were rated between 4-1, with 4 being the highest and 1 being the lowest.

Percentages and frequencies were used to analyze the background information of the participants. Means and standard deviations were used to analyse data relating to research question one. Means and standard deviations were used to ensure clear understanding and interpretation of the data analysis. One way Analysis of Variance was used to test hypothesis one and independent t-test was used to test hypotheses two and three.

### **CHAPTER FOUR**

## **RESULTS AND DISCUSSION**

# Introduction

This chapter presents the results of the data collected from the field to investigate the role of household structure in the academic achievement of students in the Bosome Freho District of the Ashanti region. A sample of 357 students was used as respondents in this study. The chapter is presented in two sections. The first section deals with the demographic characteristics of the respondents. The second section focuses on the discussion of the main data to address the research questions and hypotheses that were formulated to guide the study.

All the data gathered for the research questions were analysed using mean and standard deviation. The weighting of the responses ranged from 1.0 to 4.0 with an average score of 2.5. The scores above 2.5 were considered above the average (meaning the respondents agreed to the statement provided) while scores below 2.5 were considered below the average (respondents do not agree to the statement).

## **Demographic Characteristics of the Respondents**

The demographic characteristics of the students which were considered include: gender, age and programme. This demographic information enriched the understanding about the category of respondents who were involved in the study. The background information of the respondents which were considered in the study is presented in Table 4.

Variable	e Sub-Scale	Frequency	Percentages
			(%)
		N=341	
Gender	Male	152	44.6
	Female	189	55.4
Age	Below 14 years	9	2.6
	14-18 years	240	70.4
	Above 18 years	92	27.0
Program	nme Business	50	14.7
	Gen <mark>eral Art</mark>	208	60.9
	Science	19	5.7
	Agriculture	64	18.7

### **Table 4: Demographic Information of the Respondents**

Source: Field Data, (2018)

From Table 4, regarding the gender of the students who participated in the study, the data available shows that 189 (55.4%) were females while 152 (44.6%) were males. This shows clearly that there were more female respondents than male respondents for the study. Again, with regards to the age of the respondents, Table 4 indicated that 9, representing (2.6%) were below 14 years of age, 240, representing (70.4%) were between the age range of 14-18 years, while, 92 (27.0%), of the respondents were above 18 years.

This implies that majority of the respondents were between the age range 14-18years. Further, concerning the programme of the respondents, 50, representing (14.7%) of the respondents were offering Business and 208 (60.9%) were General Art students. Again, 19, representing (5.7%) of the students were offering Science whiles 64, constituting (18.7%) were offering Agriculture. From the Table 4 above, it is clearly indicated that the majority of the respondents were General Art students.

#### **Analysis of the Main Data**

This section presents and analyses the main data collected from the field, relating to the research questions that were formulated to guide the study. This is followed by discussion of the finding. The data was analysed using mean of means and standard deviations. Furthermore, the discussions are presented based on the research questions and hypotheses that were formulated to guide the study.

**Research Question 1:** How does the socio-economic status of the parents affect the child's academic achievement?

The main objective of this research question was to explore how socioeconomic statuses of the parents affects the child's academic achievement. On a four-point, Likert-type scale (1 = Great Extent, 2 = Moderate Extent, 3=Low Extent, and 4 = No extent), students were asked to indicate their levels of extent of agreement or disagreement with statements posed by the researcher on the socio-economic status. The results were discussed using means and standard deviation. A mean of 2.50 and above indicated respondents' agreement with the factors while a mean of 2.49 and below indicated academic achievement

respondents' disagreement with the factors. The results are presented in Table 5.

# Table 5: Perceived effect of socio-economic status of parents on the child's

academic acmevement		
Statements		
To what extent do the following socio-economic aspects	N=341	Std.
affect the academic performance of students?	Mean	Deviation
Children's nutrition and health	3.52	.664
School fees payments	3.25	.744
Parental investment in books	3.06	.616
Provision of computers	3.02	.872
Private lessons	2.97	.967
Healthy cognitive and social development of the home	2.85	.940
Provision of good uniform (clothing)	2.71	1.202
Mean of means	3.05	0.85
Mean of the standard deviations	5.05	0.05

Source: Field Data, (2020)

Table 5 shows the results of the respondents' views on the effects of socio-economic status of parents on the child's academic achievement. It is obvious from the results that the majority of the respondents agree with the statements concerning the effects of socio-economic status of parents on the child's academic achievement. For example, it was (M=3.52; SD=0.66) indicated by the students that students' nutrition and health to a greater extent affected their academic achievement. The results suggest that children's nutrition and health affect a child's academic achievement.

Table 5, also indicated that school fees payment to greater extent affected students' academic achievements (M=3.25; SD=0.744). This result implies that school fees payment was a big challenge which affected students' academic achievements. It was found out that parental investment in books really affected students' academic achievement (M= 3.06; SD=0.616), thus, having greater effects on their performance. Moreover, it was revealed that healthy cognitive and social development of the home affected students' academic achievement (M=2.85; SD=0.940). This result clearly showed that healthy cognitive and social development of the home affected students' academic achievement. Also, from Table 4, it is very clear that respondents perceived provision of good uniform (clothing) as having effect on students' academic achievements (M=2.97; SD=.967). The results showed that on the average, students perceived that socio-economic status of the household to greater extent affected students' academic achievements (M=3.05; MSD= 0.85).

The findings supported the work of Morris and Gennetian, (2003), who stated that socio-economic status can be directly related to academic outcomes particularly through the availability of material resources in the family that have an impact on the quality of the child's home environment, school programmes, and extracurricular activities. Moreover, Crosnoe and Cavanagh, (2010), indicated that family socio-economic situation is important to children's academic outcomes in part through family socialization, namely parenting behaviour and practices. Family Socio-Economic Status is for example associated with parents' ability and skills to promote children's academic success by fostering academic and occupational aspirations, by

providing opportunities for learning outside of school, and by discussing with children academic strategies and plans for the future (Bianchi, Robinson, & Milkie, 2006). At the same time, low Socio-Economic Status has adverse consequences for academic attainment because parental stress associated with socio-economic disadvantage leads to less engaged and less supportive parenting and because the lack of positive role models in households on welfare may affect children's preferences for academic success, occupational achievement, and economic independence (Ku & Plotnick, 2003).

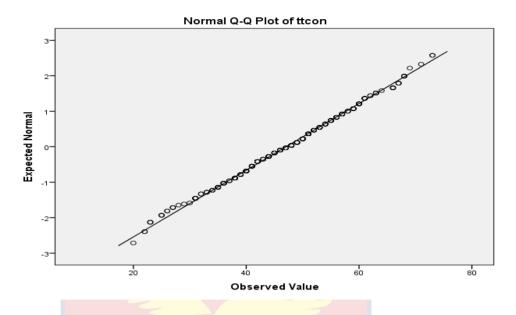
# **Results from Research Hypotheses**

This section presents the analysis of the hypotheses testing.

**Hypothesis**  $H_01$ : There is no statistically significant difference in the academic achievement of students on the basis of household size.

The researcher sought to find out whether differences existed in the academic achievement of students on the basis of household size. To achieve this, one-way Analysis of Variance (ANOVA) was conducted to determine the differences in the academic achievement of students on the basis of household size.

Prior to conducting the One-way ANOVA, assumptions were checked. These assumptions were normality, linearity and homogeneity of variance. Figure 1 presents the normality and Table5 presents the results of the homogeneity of variance.



# *Figure 1*: Normal Q-Q Plot

According to Pallant (2007), a straight normal probability plot is an indication of normality. From Figure 1, a reasonable straight line could be seen from the plot demonstrating normality of the data.

Table 6 presents the results of the test of Homogeneity of variance.

 Table 6: Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
17.413	2	166	.000

Source: Field Data, (2020) \* Significant, p<.05 (2-tailed)

From Table 6, the Significance value (Sig) for Levene's test is 0.000 which is less than the alpha or critical value of p=0.05 and it showed that the assumption of homogeneity has been violated for this sample that is [*F* (2, 166) = 17.413, *p*=.000 at the .05 alpha level].

Table 7 presents the descriptive statistical scores of students on family size.

Age	Ν	Mean	Standard deviation
Range			
1-5	133	68.3333	4.18614
6-10	115	51.6771	4.46388
Above 10	93	33.7069	1.67551

## Table 7: Descriptive Statistics of scores of students based on family size

Source: Field Data, (2020)

From Table 7, the results showed that there were differences in the mean scores. The table indicated students from the family size of 1-5 had the highest mean score followed by students having family size between 6-10, while students from a family size of above 10, had the least mean score.

Table 8 presents the summary of the ANOVA results which compares the achievement of students based on household size.

# Table 8 -Summary of ANOVA results comparing the academic

# achievement of students on the basis of household size

	S Sum of	df	Mean	F	Sig.
	Squares	OBIS	Square		
Between	888.488	2	444.244	32.086	.000
Groups					
Within	2298.340	339	13.845		
Groups					
Total	3186.828	341			
Source: Fie	eld Data, (2020)		* Sig	nificant, p< .	05 (2-tailed)

From the one-way ANOVA,  $\underline{F}(2, 339) = 32.086$ ,  $Sig. = .000, \underline{p}$ . <0.05. From the one-way ANOVA Table 8, the Sig. value of .000 is less than the  $\underline{p}$ . value of 0.05 ( $\underline{p}$ < 0.05) this means that there were significant differences between means scores of students on the basis of their family size. Since the variances are assumed equal, a follow-up test or a Post Hoc test was conducted using Games Howell to find out which pairs of means were statistically different. Table 9 presents the analysis of the post-hoc.

Table 9: Multiple Comparisons results comparing the academic

(I)	Family size	(J) Family	Mean Difference		
		size	(I-J)	Mean	Sig.
Games	1-5	6-10	17.65625	68.3333	.000
Howell		Above 10	35.62644		.000
	6-10	1-5	-17.65625	51.6771	.000
		Above 10	18.97019		.000
	Above 10	1-5	-35.62644	33.7069	.000
		6-10	-18.97019		.000

achievement of students on the basis of household size

Source: Field Data, (2020) \* Significant, p< .05 (2-tailed)

Post hoc comparisons using Games Howell procedure were to determine which pairs of the three group mean differed. The Games Howell was used because equal variance was not assumed, thus the assumption of equal variance has been violated. These results are given in Table 8 which indicate statistically significant difference (sig= 0.000) between the academic achievement of students from family size of 1-5 and 6-10. From the descriptive table, students from family size of 1-5 (M=68.3333, SD=4.18614) performed

better than students from family size of 6-10(M=51.6771; SD=4.46388). Also information on the Table indicate statistically significant difference (sig= 0.000) between the academic achievement of students from family size of 1-5 and above 10. From the descriptive table, students from family size of 1-5 (M=68.3333, SD=4.18614) performed better than students from family size above 10 (M=33.7069, SD=1.67551). Moreover, from Table 8, the result shows that there is a statistically significant difference (sig = 0.000) ) between the academic achievement of students from family size of 6-10 and above 10. . From the descriptive table, students from family size of 6-10 (M=51.6771; SD=4.46388) performed better than students from family size above 10 (M=33.7069, SD=1.67551). It can be concluded from the results that students from smaller family size have higher academic achievement as compared to those from larger family size.

The findings support the findings of Nutall et al. (2000), in their study on family size and academic achievement involving 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 were probably more influenced by peer groups who tended to have anti-academic values.

The findings further support the work of Powell and Steelman (1993), and Van Ejick and DeGraaf (1995), who 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. Smaller household size has been linked with higher academic achievement of the students. Students with fewer siblings were likely to receive more parents' attention and had 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 (Eamon, 2000; Majoribanks, 1996).

**Hypothesis**  $H_02$ : There is no statistical significant difference between the academic achievement of students from single parent families and those from two parent families.

The researcher sought to find out whether a statistically significant difference existed in the academic achievement of students from single parent families and those from two parent families. To achieve this, independent sample t-test was deemed appropriate. The results are presented in table 9.

Table 10 presents the results of t-test analysis of academic achievement of students from single parent families and from two-parent families. Table 10: Result of the independent sample t-test Analysis of the academic achievement of students from single parent families and those from two parent families

Gender	N	Mean	Std. D df t-value Sig
single parent families 101		43.51	4.11023 355 -4.248* .000
two parent families 240	)	65.63	4.22973
Source: Field Data, (2020)			* Significant, p<.05 (2-tailed)

Table 10 presents result of independent sample t t-test analysis comparing the academic achievement of students from single parent families and those from two parent families. The results in table 9 show a statistically significant difference t (341) = -4.248\*, sig= 0.000, p < .05. From the Table 9, the t- test is significant at 0.05 level of significance. The null hypothesis which stated, that "There is no statistically significant difference was rejected. Therefore, the alternate hypothesis that "There is a statistical significant difference between the academic achievement of students from single parent families and those from two parent families." was upheld. This therefore implies that there is a statistically significant difference between the academic achievement of students from single parent families and those from two parent families. It is evident from the means that students from two parent families performed better than (M= 65.51, SD= 4.11023) students from single parent families (M= 42.63; SD=4.22973).

This findings support the work of Amato and Keith, (1991), who found that students from single-mother families and students from singlefather families tend to exhibit academic underperformance when compared to students from traditional families. Hampden-Thompson (2009), said, "These

results indicate a pattern of underachievement for children who lived with their mother only" (p. 520). Magnuson and Berger (2009), reported students from single-mother families in middle childhood experience depressed scores in both reading and mathematics when compared to students from traditional families in the same age category. Furthermore, Amato and Keith (1991), suggested custodial single-parent mothers may "underestimate" (p. 33) their children's problems in general. Perhaps the underachievement is perpetual in students from single-mother families due to lack of parental attention to the issue or parental inability to admit the severity of problems. In general, singlemother families tend to have fewer books in the home, less parental education, and lower incomes than two-parent families (Hampden-Thompson, 2009; McLanahan & Sandefur, 1994). Noteworthy here is the literature that suggested parental separation (including cases of divorce) is more frequently the reason for single mother families than birth to a single mother (Heuveline et al., 2003). Assuming Jeynes' (2006) "Transition School of Thought" (p. 78), students from single-mother families are more likely to experience the stresses associated with at least one family transition.

Notwithstanding, the study contrasts the work of Marsh (1990), who specifically investigated students from single-father families. Marsh's results showed no significant difference in the academic achievement of students from single-father families when compared to students from traditional families, as long as the single-father families were stable.

**Hypothesis H<sub>0</sub>3**: There is no statistical significant difference in the academic achievement of students in male-headed households and female-headed households.

The research sought to find out the statistically significant difference that exists in the academic achievement of students in male-headed households and female-headed households. To achieve this, independent sample t-test was deemed appropriate. The results are presented as below.

Table 11 presents the results of the t-test analysis comparing academic achievement of male-headed and female headed households.

Table 11- Result of the independent sample t-test Analysis Comparing

academic achievement of students in male-headed household and female-headed household Gender Ν Std. D Mean df t-value Sig Male-headed 262 57.9 4.82 355 2.58\* 0.076

14.73

and amin achievement of students in male booded household

Source: Field Survey, (2020) \* Significant, p<.05 (2-tailed)

58.75

79

Female-headed

From the Table 11, the independent sample t- test is significant at 0.05 level of significance. The null hypothesis which stated, that "There is no statistical significant difference in the academic achievement of students in male-headed household and female-headed household" was therefore failed to be rejected; t (df = 341)= 2.58, p > .05, sig= 0.076. This implies that there is no statistical significant difference in the academic achievement of students in male-headed household and female-headed household.

This finding contrasts the work of Amato, (1987), who revealed that children who grow up in mother-headed households are less likely to complete high school or even attend college than the children who grow up with fatherheaded households. McLanahan (1986), asserted that one reason why children

from mother-headed households are less likely to finish high school is the precarious economic position of their families.



#### **CHAPTER FIVE**

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## Introduction

This chapter deals with the summary, conclusion and recommendations based on the findings of the study. It summarizes the research methods employed in collecting data relating to the question and hypotheses formulated to guide the study on the role of household structure in the academic achievement of children in the Bosome Freho District of the Ashanti region. Based on the findings, conclusions were reached which made it possible for recommendations to be made to appropriate authorities. Also, suggestions are made for further research.

# Summary of the Study

The purpose of this study was to find out the influence of household structure on the academic achievement of students in the Bosome Freho District of the Ashanti region. Specifically, the study was designed to find out the perceived effect of socio-economic status of parents on students' academic achievement, find the perceived effects of socio-economic status of parents on children's academic achievement, to find out if there were significant differences in academic achievement of students on the basis of household size, and to find out whether there were any differences in the academic achievement of students in male-headed household and female-headed household. Descriptive design was used for the study. The target population for this study consisted of all senior high schools students in Bosome Freho

District of the Ashanti region and the purposive sampling to select only the public senior high schools in the district. A questionnaire developed by the researcher and students test scores were used for the data collection. Means and standard deviations were used to ensure clear understanding and interpretation of the data analysis. One way Analysis of Variance was used to test hypothesis one while independent t-test was used to test research hypotheses two and three.

#### **Summary of Key Findings**

The following are the key findings that emerged from the study:

- 1. Result of the study clearly showed that on the average, students perceived that socio-economic status of the household to greater extent affected their academic achievements (MM=3.05; MSD= 0.85).
- 2. The study found out that a statistically significant difference (sig= 0.000) existed in the academic achievement of students on the basis of their family size. The study found that students from smaller family sizes had higher academic achievement as compared to those from larger family sizes.
- 3. The study also found that there was a statistically significant difference between the academic achievement of students from single parent families and those from two parent families. The study revealed that students from two parent families performed better than (M= 65.51, SD= 4.11023) students from single parent families (M= 42.63; SD=4.22973).
- 4. The study further indicated that there was no statistical significant difference t (df = 355) = 2.58, p > .05, sig = 0.076) in the academic

achievement of students from male-headed household and femaleheaded households.

#### Conclusions

The study sought to find out the influence of household structure on the academic achievement of children in the Bosome Freho District of the Ashanti region.

It came out from the study that students perceived socio-economic status of the household to affect their academic achievements, to a greater extent. Thus, high socio-economic class of parents had influence on their performance as compared to those from low socio-economic class households whose performance was poor, comparatively. This is because those from the low socio-economic households mostly lacked resources that facilitate effective learning, thereby affecting their performance.

Again, students from smaller family size households in Bosome Freho District of the Ashanti region had higher academic achievement as compared to those from larger family size households. This was due to the fact that mostly, students from larger family size households did not get the needed attention from their parents as compared to those from smaller family size households. Inadequate attention from the parents contributed to their poor performance and subsequent low achievements.

Further, comparing the academic achievements of students from single parent families and those from two parent families in the District showed that there were differences in the academic achievements of students from single parent family households and those from two parent family households. Thus, students from two parent families performed better than students from single

parent families. Therefore, students from single parent family households should be given the needed attention academically to help them perform well. However, the academic achievements of students in male-headed household and female-headed household in Bosome Freho District of the Ashanti region were the same. This implied that there were no differences in the performance and subsequent achievements of students in a male-headed households and female-headed households.

#### **Recommendations**

Based on the findings and conclusions drawn from the study, the following recommendations have been made for policy and practice.

- 1. Since the socio-economic status of parents affect students' academic achievement, it is recommended that the government should support students from low socio-economic households with the necessary academic materials to enable them perform very well.
- 2. Larger family size adversely affects the academic achievement of students. The Ghana Education Service should therefore educate parents at PTA meetings on the adverse effects of larger family size with no preparation to fully cater for their academic needs.
- Ghana Education Service in Bosome Freho District should organize to educate parents on the adverse effect of divorce or single parenting on the academic achievements of pupils.
- 4. Ghana Education service in Bosome Freho District should identify and support students from single parent's households with the necessary help to enable them perform as those from both parents' household.

# **Suggestions for further studies**

The present study focused on only Senior High Schools in Bosome Freho District. This will make it difficult to be generalized to Senior High Schools in other districts. Therefore, further studies can be conducted to increase the population to aid generalization of the results to other districts across the nation.



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#### **APPENDICES**

# **APPENDIX A**

#### **UNIVERSITY OF CAPE COAST**

# DEPARTMENT OF EDUCATIONA AND PSYCHOLOGY QUESTIONNAIRE FOR RESPONDENTS

Dear Respondent,

I am a student of the University of Cape Coast conducting a research. The goal of this study is to obtain evidence of the perceived factors that are responsible for the poor academic performance of students in schools. I, therefore, solicit your cooperation and consent to participate in this study. The confidentiality of your responses is guaranteed. There is no right or wrong responses, so please feel free to tick (where appropriate) the responses that express your views.

Please indicate your choice by ticking  $(\sqrt{})$  or writing your response where necessary.

# **SECTION A**

# SOCIO-DEMOGRAPHIC AND ACADEMIC BACKGROUND OF

- 1. Gender : Male [ ] Female[ ]
- 2. Age: Below 14 years [] Between 14 18 years [] Above 18 years []
- 3. Programme
- 4. How many siblings do you have? [ ]

5. Who mainly pays your school fees?

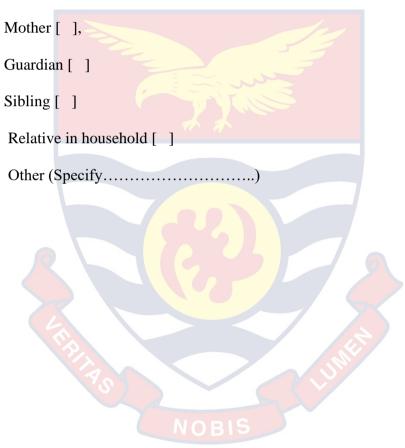
Father [ ]

Mother [ ]

Other relative [ ]

Other (Specify).....

- 6. Do you usually get help with your homework? Yes [ ], No [ ]
- 7. If yes to Q7, who in your household mainly helps you Father?



#### **SECTION B:**

# HOUSEHOLD CHARACTERISTICS

8. Who is the head of your household?

Father [ ]

Mother [ ]

Guardian [ ]

Other relative [ ]

Other (Specify).....

9. Sex of household head.

Male [ ]

Female [ ]

10. The number of persons in your household

1-5 [ ]

6-10 [ ],

Above 10 [ ]

11. Highest level of education of the household head.

None []

Primary []

JHS/ JSS/MSCL []

SHS/SSS/Secondary []

Post- Secondary []

12. Occupation of head

Farmer [ ]

Trader [ ]

Professional [ ]

	Other (Specify)				
13.	13. What type of dwelling does the household live?				
Flat / Apartment [ ]					
	Compound house [ ]				
Improvised home (kiosk, container) [ ]					
Quarters attached to office or uncompleted building [ ]					
Other (Specify)					
14. Who owns the dwelling?					
	Owned by household head [_]				
Own by another member of household [ ]					
Relative not household member [ ]					
Other private individual [ ]					
Public/ government ownership [ ]					
	Other (Specify)				
15. Does your household access to any of the following? (MULTIPLE RESPONSE -PROVIDE ALL APPROPRIATE ANS					
	Motorcar Yes [ ] No [ ]				
Computer Yes [] NO ENO []					
	Internet facility Yes [ ], No [ ]				
	Fixed telephone line Yes [ ] No [ ]				

# **SECTION C**

# PERCEIVED INFLUENCE OF SOCIO-ECONOMIC STATUS OF PARENTS ON CHILDREN'S ACADEMIC ACHIEVEMENT

16. Does availability of resources affect your academic performance? Yes []

No [ ]

To what extent do the following socio-economic aspects affect the academic performance of students?

SOCIO ECONOMIC	Greater	Moderate	Low	No
FACTORS	Extent	Extent	Extent	extent
. Children's nutrition and	the the			
health				
. School fees payments				
. Parental investment in	2		0	
books		5		
. Provision of computers				
		JIM		
. Private lessons				
	VOBIS	5		
. Healthy cognitive and				
social development				
. Provision of good				
uniform (clothing)				

### **APPENDIX B**

# ACADEMIC ACHIEVEMENT TEST

## **CORE MATHEMATICS**

# **DURATION: 45MINS**

## **ANSWER ALL QUESTIONS**

# If $U = \{a, b, c, d, e\}$ , $P = \{a, b, c\}$ , $Q = \{a, c, d\}$ and $R = \{d, e\}$

Use the information above to answer questions 1 and 2

1.	$P \cup Q^1$				
A. {a, e	B. {a, b	o, c, d} C. {a,	b, c, d, e} D. {a	, b, c, e}	
2.	$P^1 \cap R^1$				
A. {a, b	o, c, d, e}	B. { }	C. {d, e}	D. {a, b, c}	
3.	If $n\sqrt{3} = 27$ find	nd n			
A. 9		B. √3	C. 3	D. $^{1}/_{3}$	
4.	$log_x 8 = \frac{1}{3}, fi$	nd teh value of x			
A. 2		B. 2 <sup>6</sup>	C. 2 <sup>9</sup>	D.3	
5. Given that $a^* b = a^2 + b^2 + 2ab$ , find $\sqrt{3*}\sqrt{10}$					
A. 15√	30 B. 13√	7 <u>30</u> C. 13	$+\sqrt{30}$ D. 30	$0 + 2\sqrt{30}$	
$6. \qquad 57 = x \mod 7, find x BIS$					
A. 9		B. 1	C. 5	D. 2	
7. $3^{x-2} = \frac{1}{81}$ , find x					
A. 2		B2	C4	D. 4	
8. Simplify $log_5 12 + log_5 10$					

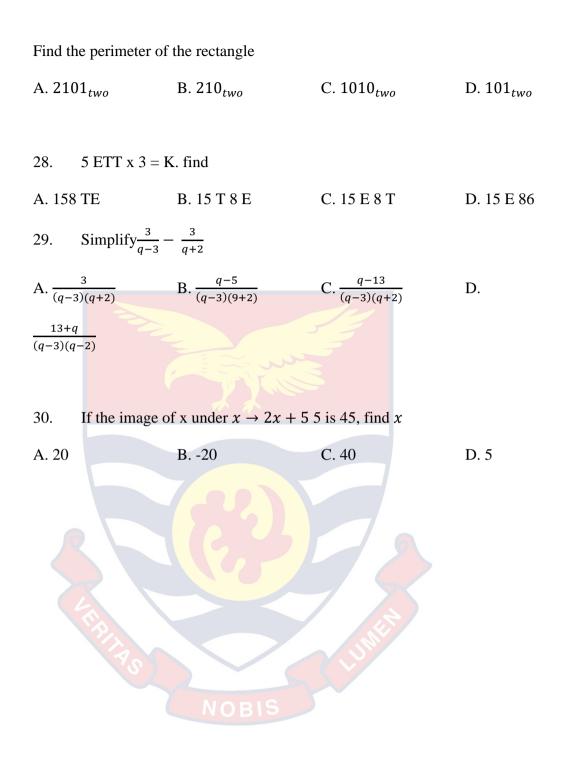
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9.	What modular system is $4 + 11 = 3$					
A. 3	B. 5	C. 2	D. 4			
10.	It is 3 o'clock in Asiwa, what	at time will it be in 72	hours' time			
A. 8.0	o'clock B. 9.0 o'clock	C. 3.0 o'clock	D. 12.0 o'clock			
11.	Make u the subject of the real	lation $V = \frac{1}{2}\sqrt{25 - u}$	2			
$A.\sqrt{21}$	$v^2 - 25$ B. $\sqrt{25 - 2v^2}$	$C.\sqrt{25-4\nu^2}$	A. $\sqrt{4v^2 - 25}$			
12.	Find the truth set of $-2 < x - 3$	<5				
A. 1 >	•x < 8 B. 1 <x 8<="" <="" td=""><td>C. 1 &gt;<i>x</i>&gt; 8</td><td>D5&lt;<i>x</i>&lt;5</td></x>	C. 1 > <i>x</i> > 8	D5< <i>x</i> <5			
13.	Solve for in $\frac{x}{4} + \frac{3}{5} = \frac{3x}{2} - 2$	2				
A. $\frac{-52}{25}$	$\frac{2}{2}$ B. $\frac{52}{25}$	C. $\frac{25}{52}$	D. $\frac{-25}{52}$			
14.	$321_x = 57_{10} find x$					
A. 4	B. 10	C. 6	D. 2			
15.	What is the equivalent value	e of 344 <sub>five</sub> in base ten	1?			
A. 90	B.99	C. 95	D. 49			
16.	Simplify $\frac{3x^2}{4y^2} \times \frac{2y^3}{9x}$					
A. $\frac{xy}{6}$	B. $\frac{2xy}{6}$	C. $\frac{x^3y^3}{6}$	D. $\frac{x^{-3}y^{-3}}{6}$			
17.	$2\sqrt{8} + \sqrt{32} + \sqrt{128} = 3$					
A. 16 <sup>-</sup>	$\sqrt{2}$ B. $16\sqrt{6}$	C. 8√2	D. 8√6			
18. Find the truth set of 5 Q + 4 $\ge$ 2Q + 9						
A. Q :	$\leq \frac{5}{3}$ B. Q $\leq \frac{-5}{3}$	C. $Q \ge -5/3$	D. Q $\ge \frac{5}{3}$			
19. If $\frac{9}{21}$ is equivalent to $\frac{1+x}{7}$ , find x						
A. 2	B.3	C. 8	D. 5			

20. James is 5 years older than her girlfriend. If the sum of their ages is 51. Find his girlfriend age.

21. It is 6.00 am in Cotonu. If the next bus is to leave to Accra in 11 hours later. At what time is the bus leaving? A. 5.00am B. 5.00pm C. 2.00am D. 2.00pm 22.  $x^2 = 61_8$  find x B.{x = -7} C.  $\{x = 7\}$  D.  $\{x = 8\}$ A. {  $x = \pm 7$  } 23. Which of the following fraction is equivalent to 0.666.....  $A.^{6}/_{10}$ B.  $^{3}/_{5}$ C.6/9 $D.\frac{7}{10}$ Evaluate  $\left(1\frac{1}{3} \times 2\frac{1}{4}\right) + \left(2\frac{1}{2} \div \frac{5}{6}\right)$ 24. A.  $\frac{5}{6}$ B. 6 C. 5 D. 3 25. Write 5683.4796 to 6 significant figures A. 568348 B. 5683.47 C. 5683.48 D. 568300 26.  $243_5 - 144_5 = K$ , find K C. 1115 A. 1015 B. 1045 D. 445 27. The dimensions of a rectangle is given as  $10_{two} cm$ 

 $11_{two}cm$ 



#### **APPENDIX C**

## ACADEMIC ACHIEVEMENT TEST

#### **ENGLISH LANGUAGE**

## **DURATION: 45 MINUTES**

#### **SECTION A**

1. After the church service, the congregation bowed their heads for the benediction

A. Blessing B. Administration (	C. Prayer	D. Curse
---------------------------------	-----------	----------

- 2. Nobody wanted to offend him because he was a very <u>vindictive</u> man
  - A. Disciplined B. Forgiving C. Hateful D. Corrective
- 3. That today is holiday is <u>undeniable</u>A. Certain B. Precarious C. Movement D. Uncertain
- 4. The editors intention was to <u>expand</u> the manuscript and not.....it

A. Lesson B. Decrease C. Shorten D. Reduce

5. When Kwaku went to the hospital, he was told that his wife had <u>succumbed</u> to the long labour

A. Delivered B. Neglected C. Started D. Survived

6. The crown jewels are <u>priceless</u>

A. Costly B. Cheap C. Beautiful D. Rare

7. Instead of being sorry for what he had done, he was rather <u>pugnacious</u> towards us

A. Ambitious B. Healing C. Boastful D. Conciliatory

8. While the children were agitated by the news, their parents were very ......A. Indifferent B. Happy C. Composed D. Satisfies

- Rather than...... the issues, his comments confused the audience the more
   A. Resolve B. Clarify C. Solve D. Clear
- 10. The manager will <u>lay off</u> the experience staff and ..... new ones

   A. Promote
   B. Accept
   C. Recommend
   D. Engage
- 11. Every year the armed forces......thousands of persons into the army
  - A. Hires B. Enlist C. Accepts D. Admits
- 12. That pastor always preaches sermons that will win more.....

A. Convicts B. Converts C. Activist D. Adherents

13. The children ..... their laughter when they saw the look on their father's face.

A. Constrained B. Subjugated C. Censored D. Suppressed

14. Adwoa's mother.....her for being rude

A. Abused B. Angered C. Rebuked D. Incriminated

15. His natural modesty always inclined him to.....his own achievementsA. Play down B. Play back C. Play up D. Play on

## **SECTION B**

16. There are certain ..... between the two accounts of the accident

A. Diversities B. Distortions C. Discrepancies D.

Discriminations

17. ..... his inefficiency, he was a successful business man

A. But for B. Except for C. Contrary to D. In spite of

It is not advisable to build a house there because the area is ......to
 flooding

A. Agreeable B. CondemnedC. Prone D. Resign

19. Though he was a great player, he failed to ..... in the tournament

A. Shine B. Flourish C. Rise D. Exult

20. The government has put in place measures to ..... the high rate of inflation

A. Catch B. Defeat C. Check D. Dismiss

#### **SECTION C**

21. The <u>aftermath of the disaster is still with us</u>

A. Cause B. Result C. Climax D. Conclusion

22. He found Kelvin is commends very distasteful

A. Unappealing B. Tasteless C. Disagreeable D. Discouraging

23. The opinion expressed by that panelist was quite controversial

A. Debatable B. Serious C. Important D. Superficial

24. The students felt defected when their favourite teacher was transferred

A. Rejected B. Disappointed C. Frustrated D. Suppresses

25. Some Bosses are found of intimidation their staff

A. Fighting B. Condemning C. Harassing D. Mocking

NOBIS

## **SECTION D**

26. The landlord had to eject the tenant from his house

A. Debar B. Expel C. Remove D. Evict

27. Krobea's statement corroborated the evidence before the judge

A. Supported B. Explained C. Collaborated D. Contradicted

28. They refused to divulge their plans.

A. Tell B. Reveal C. Denounce D. Voice

- 29. The woman because <u>despondent</u> after the judge had sentenced her son to jailA. Agreed B. Alarmed C. Dejected D. Deserted
- 30. The chairperson asked all the members to give their <u>candid</u> opinion on the matter



#### **APPENDIX D**

# ACADEMIC ACHEIVEMENT TEST

## SOCIAL STUDIES

# **DURATION: 30MINUTES**

1. A cultural practice which is st	ill cherished in Ghana is
A. Naming ceremony	3. Trokosi rites
C. Female genital mutilation	D. Ritual murder
2. One advantage of an adolescen	at abstaining from pre-marital sex is
A. Getting a better marriage partner	B. Protection from unwanted
pregnancy	
C. Giving birth to intelligent children	D. Getting better employment
opportunities	
3. The most important benefits of	traditional festival is
A. Enabling members of the communi	ty to make merry
B. Bringing citizens together to plan th	ne development of their area
C. Generating income for individuals	
D. Preparing for warfare	
4. Which of the following is not a	a cause of violent conflict in Ghana?
A. Election B. Land dispute B C.	Successions D. Location of institution
5. During the period of adolescen	ce females experience
A. Deepening of the voice	3. Broadening of the shoulders
C. Widening of the hips	D. Decrease in height
6. All the following are rites of pa	assage except
A. Naming ceremony	3. Marriage ceremony
C. Widowhood rites	D. Funeral rites

140

7. Which of the following cherished traditional practices in Ghana today tend to breed disunity?

A. Funeral B. Chieftaincy C. Marriage D. Naming ceremony

8. A nation is said to be self-reliant when

A. She imports all her basic needs

B. She export large quantities of cash

C. Slid produces must of her basic needs crops

D. Other countries depend on her for capital

- 9. Political independence for a nation is necessary because
- A. It gives the nation and their people dignity

B. It leads to a struggle for leadership among the people

C. It gives the people the freedom to grow

D. It gives the nation to fight with other nation

10. The spread of sexually transmitted diseases can be limited through

A. Conducting frequent STD's test B. Isolating STD's patients

C. Discouraging promiscuity D. Encouraging homosexuality

11. Which of the following national symbols is used to signify state mourning?

A. A state sword	B. The national flag

C. The Coat-of-Arms D. The national Anthem

12. Culture is said to be dynamic because it

A. Changes frequently B. Is homogeneous

C. Must be preserved D. Varies from one society to the other

	13.	One procedur	e for the settler	nent of la	bour disputes	is throu	ıgh
	A. Co	nfrontation	B. Arbitration	1	C. Agitation	D. Inti	midation
	14.	A conflict bet	tween two indiv	viduals is	referred to as		
	A. Intr	ra-personal	B. Inter-perso	onal	C. Inter group	D. Inf	ra group
	15.	All these are	causes of confl	ict except			
	A. Gre	eed B. Dis	scrimination	C. Justi	ce D. Abu	using th	e rights of
	others						
	16.	Funeral rites	in the Ghanaiar	n tradition	al society are	meant t	0
	A. Ho	nour the dead a	and ensure peac	eful rest			
	B. Pac	ify the gods an	and ancestors				
	C. Res	spect the ances	tors and purify	the societ	ty		
	D. Ens	sure continuity	of life and prop	note peac	ce		
17.	In trad	litional society.	, people who le	ad exemp	olary lives are	referred	to as
		. after death					
	A. Her	roes	B. Gods		C. Ancestors		D. Fathers
	18.	The principle	of "self-reliand	e" implie	es		
		A. Using only	v local material	s B. Cons	suming what is	s produc	ced locally
	C. Pro	ducing what y	ou need.	D. Prod	ucing more th	at what	one needs
19.	Which	of the followi	ng attitudes or	values is	not associated	with pe	eace
	buildi	ng					
	A. Neg	gative thinking	B. To	lerance	C. Co-opera	ation	D. Respect
	20.	Which of the	following is no	ot a respon	nsibility of citi	izenship	o?
	A. Ma	king as much 1	noney as possil	ble	B. Paying taxe	es	
	C. Wo	orking hard		]	D. Protecting	the envi	ronment

21. Improving our education and training system could best be described				
as improving				
A. Natural resources B. Human resources				
C. Economic resources D. Physical resources				
22. Which of the following socio-cultural practices can promote				
development				
A. Widowhood rites B. Female genital mutilation				
C. Chieftaincy D. Marriage ceremonies				
23. Which of the following is not an advantage of adolescent chastity?				
A. Dropping out of school early B. Prevention of pregnancy				
C. Avoidance of STI's D. Ability to concentrate on academic				
work				
24. Which of the following is a sexually transmitted disease?				
A. Syphilis B. Meningitis C. Buruliulcer D. Trypanosomiasis				
25. Self-confidence can be built through				
A. Self-medication B. Self-determination				
C. Self-defence D. Self-humiliation				

### **APPENDIX E**

# ACADEMIC ACHEIVEMENT TEST

# **INTEGRATED SCIENCE**

# **DURATION: 30MINUTES**

# **ANSWER ALL QUESTIONS**

1. C	One example of soil micro-nutrient is
	A. phosphorous B. calcium C. manganese D. magnesium
2. A	All the following are agronomic practices of conserving the soil except
А	A. mulching B. cover cropping C. crop rotation D. geo textile
3. V	Which of the following is primary soil nutrient
	A. calcium B. phosphorous C. sulphur D. magnesium
4. P	ermeable materials which are laid on the surface of the land in the form of
n	nats to show the velocity of water is called
	A. mulching B. geotextiles C. win bread D. contouring
5. 5	. Which of the following area of study is applied science
A	A. chemistry B biology C. medicine D. physics
6. T	The main aim of mulching the land is to
	A. control erosion $NOBIS_{B.}$ to keep down weed
	C. to conserve moisture D. to add nutrient to the soil
7. T	o which of the following Kingdoms do bacteria belongs to
	A. Animalia B. prototista C. platae D. prokryotae
8. F	Certile soil are always productive true/false

144

9. The integration cropping with tree planting is				
A. mulching B. multiple cropping	C. agroforestry	D. cover		
cropping				
10. One of the following is a trace nutrient				
A. copper B. sulphur C. magnesiu	m D. potass	ium		
11. Which of the following cell is animal's cel	1			
A. epidermal cell B. pollen grainC. pa	alisade D. mesop	hyll cell		
12. Which of the following has many cells				
A. paramecium B. hibiscus	C. amoeba D	. euglena		
13. All the following nutrients are soil nutrien	t except			
A. chlorine B. carbon C. zinc D. m	olebdenum			
14. The period of leaning the baring the land u	incultivated for peri	od of years is		
called				
A. fellow period <b>B.</b> fallow period	C. fallor period	D. fallore		
period				
Use the organelle below to answer question	on 15-18			
I. Mitochondria II. Chloroplast	III.nucleus IV	V.cell wall V.		
vacuole				
15. The organelle that produces energy for the cell is				
A. I B. II C. III D. IV E. V				
16. The organelle that contains chromosome is				
A. I B. 11 C. III D. V E. V				
17. The organelle that contains chlorophyll is				
A. I B. II C. III D. IV E. V				

18. The organelle which cellulose is found is

A. I B. II C. III D. IV E. V

19. When of the following organism belong to the phylum CHORDATA

A. earthworm B. crab C. tilapia D. Aphids

20. In plants the male sex cell or garnate is the

A. ovary B. ovuls C. calyx D. pollen grains

An electric kettle rated 2KW is operated by 240V mains for 20minutes. Use

this information to answer questions 21 and 22

21. Determine the current drawn from the mains

A. 0.1 A B. 1.2A C. 4.2A D. 8.3.
----------------------------------

22. Calculate the resistance of the element of the kettle

Α. 8Ω	Β. 29Ω	C. 240Ω	D. 248Ω

23. When a glass rod is rubbed with silk, it becomes

A. magnetic B. negatively charge C. neutral D. positively charge

24. The unit for electrical charge is

A. ampere B. candela C. coulomb D. ohms

25. Semiconductors are used in the manufacture of

A. electric cable B. transformer C. transistor D. magnets

NOBIS

#### **APPENDIX F**

## **INTRODUCTORY LETTER**

UNIVERSITY OF CAPE COAST COLLEGE OF EDUCATION STUDIES FACULTY OF EDUCATIONAL FOUNDATIONS

DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Telephone: 0332091697 Email: dep@ucc.edu.gh

Our Ref:



UNIVERSITY POST OFFICE CAPE COAST, GHANA

Your Ref:

13th March, 2015

# TO WHOM IT MAY CONCERN

Dear Sir/Madam,

## THESIS WORK LETTER OF INTRODUCTION: MR. ISAAC ADJEI BOATENG

We introduce to you Mr. Adjei Boateng, a student from the University of Cape Coast, Department of Education and Psychology. He is pursuing a Master of Philosophy Degree in Sociology of Education and he is currently at the thesis stage.

Mr. Adjei Boateng is researching on the topic: "INFLUENCE OF HOUSEHOLD STRUCTURE ON ACADEMIC ACHIEVEMENT OF SENIOR HIGH SCHOOL STUDENTS IN THE BOSOME-FREHO DISTRICT- GHANA."

He has opted to collect or gather data at your institution/establishment for his Thesis work. We would be most grateful if you could provide him with the opportunity and assistance for the study. Any information provided would be treated strictly as confidential.

We sincerely appreciate your co-operation and assistance in this direction.

Thank you.

Yours faithfully,

Theophilus A. Fiadzomor (Mr.) Senior Administrative Assistant For: Head

#### **APPENDIX G**

## ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST COLLEGE OF EDUCATION STUDIES ETHICAL REVIEW BOARD

Our Ref:

OS EGE Date

UNIVERSITY POST OFFICE CAPE COAST, GHANA

Date: May 12, 2020

Your Ref: .....

Dear Sir/Madam,

# ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

Chairman, CES-ERB Prof. J. A. Omotosho jomotosho@ucc.edu.gh 0243784739

Vice-Chairman, CES-ERB Prof. K. Edjah kedjah@ucc.edu.gh 0244742357

<u>Secretary, CES-ERB</u> Prof. Linda Dzama Forde <u>Horde@ucc.edu.gh</u> 0244786680 The bearer Saac Adjei Boateng Reg. No. 50/869/3/882 is an M.Phil. / Ph.D. student in the Department of Education in the College of Education Studies, University of Cape Coast, Cape Coast, Ghana. He / She wishes to undertake a research study on the topic:

Influence of household structure on academic. achievement of Senior High School Students in the Bosome-Freho Aistrict

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed his/her proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/her study. The ERB would be grateful if you would give him/her the necessary assistance to facilitate the conduct of the said research.

Thank you. Yours faithfully,

Prof. Linda Dzama Forde (Secretary, CES-ERB)