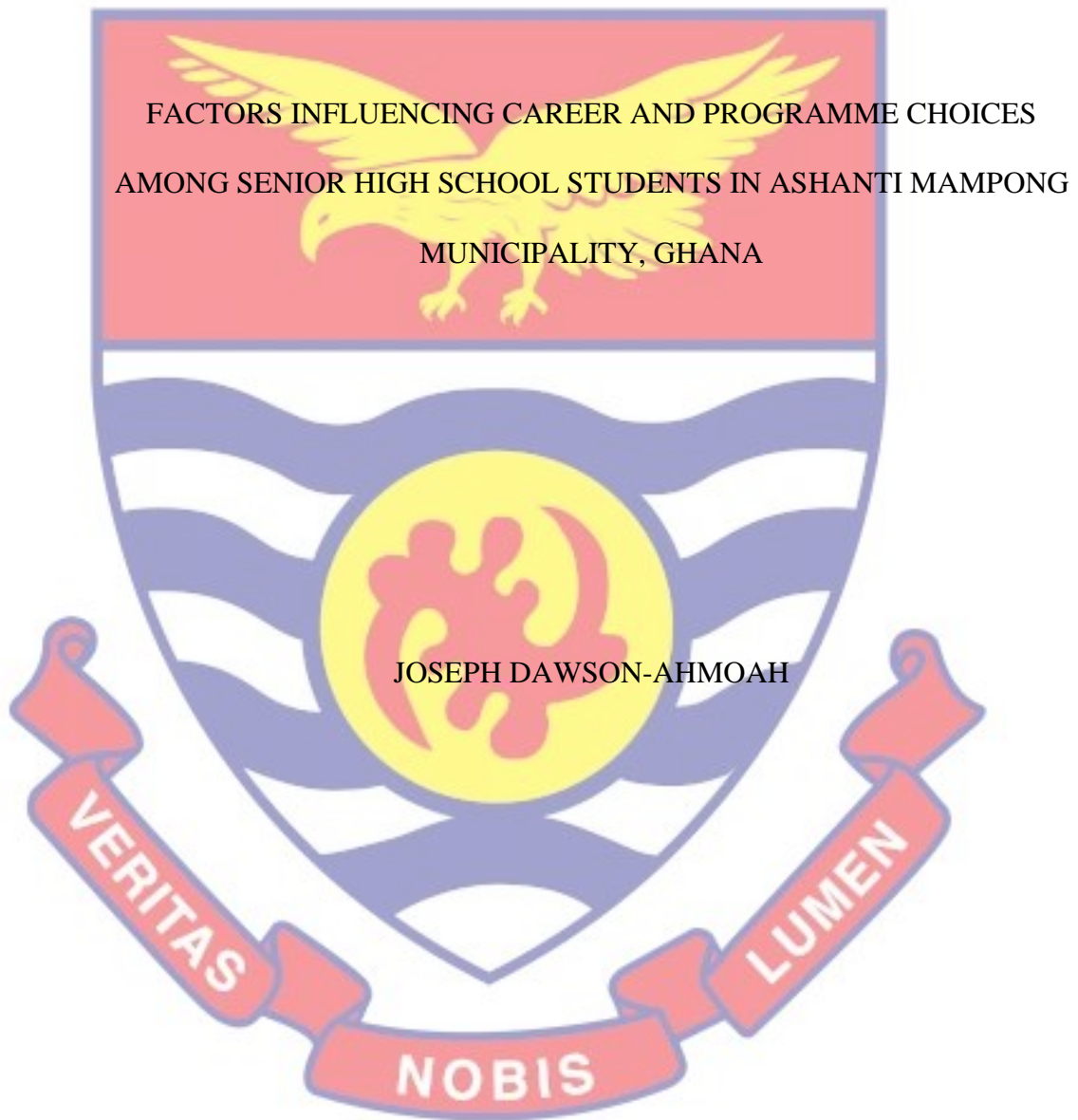


UNIVERSITY OF CAPE COAST



2022

UNIVERSITY OF CAPE COAST

FACTORS INFLUENCING CAREER AND PROGRAMME CHOICES  
AMONG SENIOR HIGH SCHOOL STUDENTS IN ASHANTI MAMPONG  
MUNICIPALITY, GHANA

BY

JOSEPH DAWSON-AHMOAH

This thesis submitted to the Department of Guidance and Counselling of the  
Faculty of Educational Foundations, College of Education studies, University  
of Cape Coast, in partial fulfillment of the requirements for award of Master  
of Philosophy, degree in Guidance and Counselling

SEPTEMBER 2022

## DECLARATION

### Candidate's Declaration

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

Candidates Signature: ..... Date: .....

Name: .....

### Supervisors' Declaration

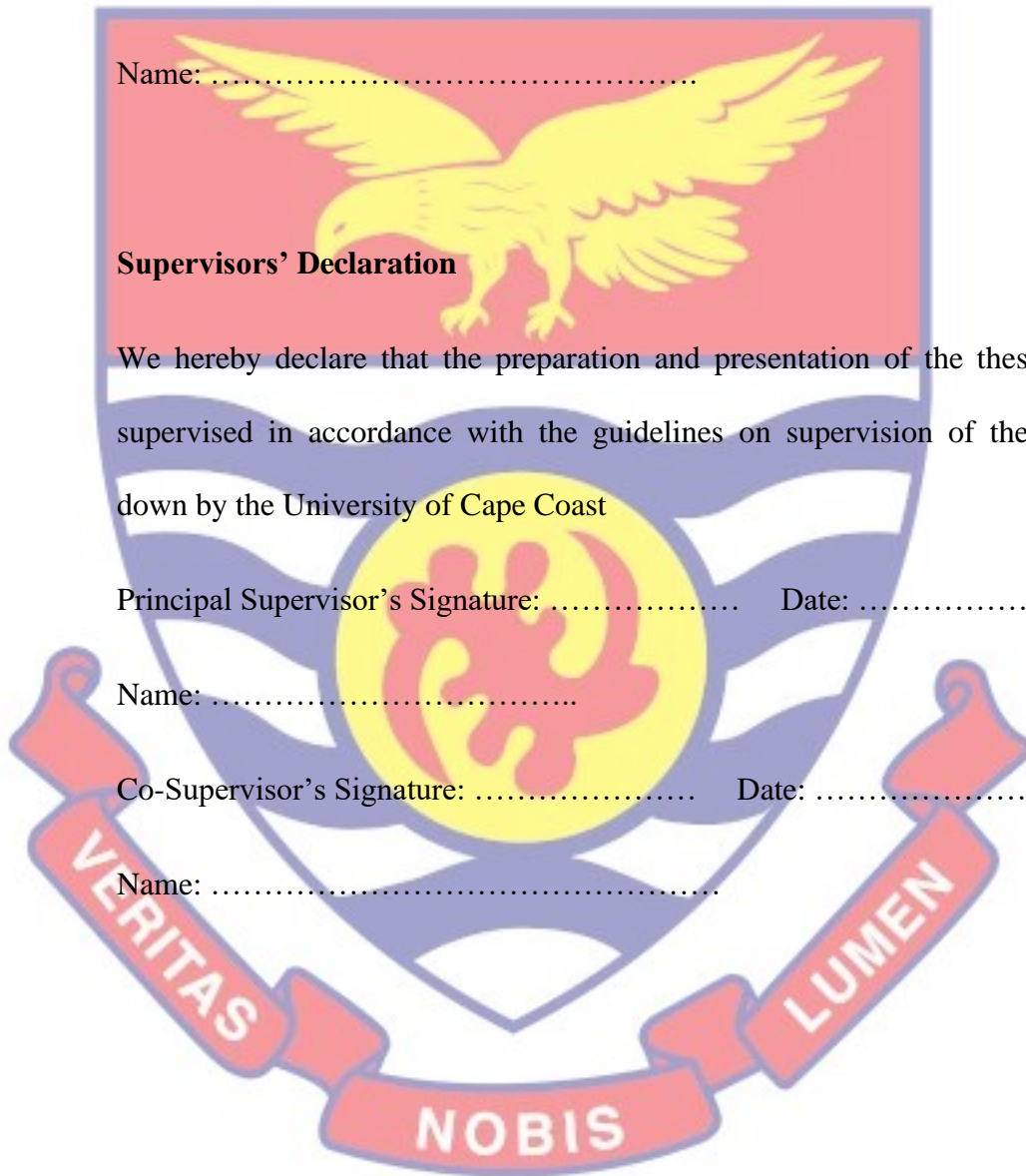
We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast

Principal Supervisor's Signature: ..... Date: .....

Name: .....

Co-Supervisor's Signature: ..... Date: .....

Name: .....



## ABSTRACT

The study examined factors that influenced career and programme choices among senior high school students in the Ashanti Mampong municipality. The population for the study was students from the public Senior High Schools in the Ashanti Mampong Municipality. A sample of 2,642 students was selected for the study. A multistage sampling procedures were used in the sampling process namely, purposive, proportional and simple random sampling. A descriptive survey was the research design adopted for the study. The instrument used to collect data was the questionnaire. The data were analysed using means and standard deviation while the hypotheses was tested using independent sample t-test. Results revealed that environmental factors, institutional factors, and personal characteristics influenced students career choice and choice of programmes at the tertiary institution. The study further revealed that male and female students considered environmental factors, institutional factors and personal characteristics when making decisions about their careers and programme to study at the tertiary institution. Based on these findings, it is recommended that educators and school counsellors should focus on parents' socio-economic status when counselling students on career choices and pursuit of higher education. Again, the school management and counsellors should ensure that students get accurate and reliable information about the tertiary institutions they are interested in, especially reliable information on the programme of which they wish to pursue.

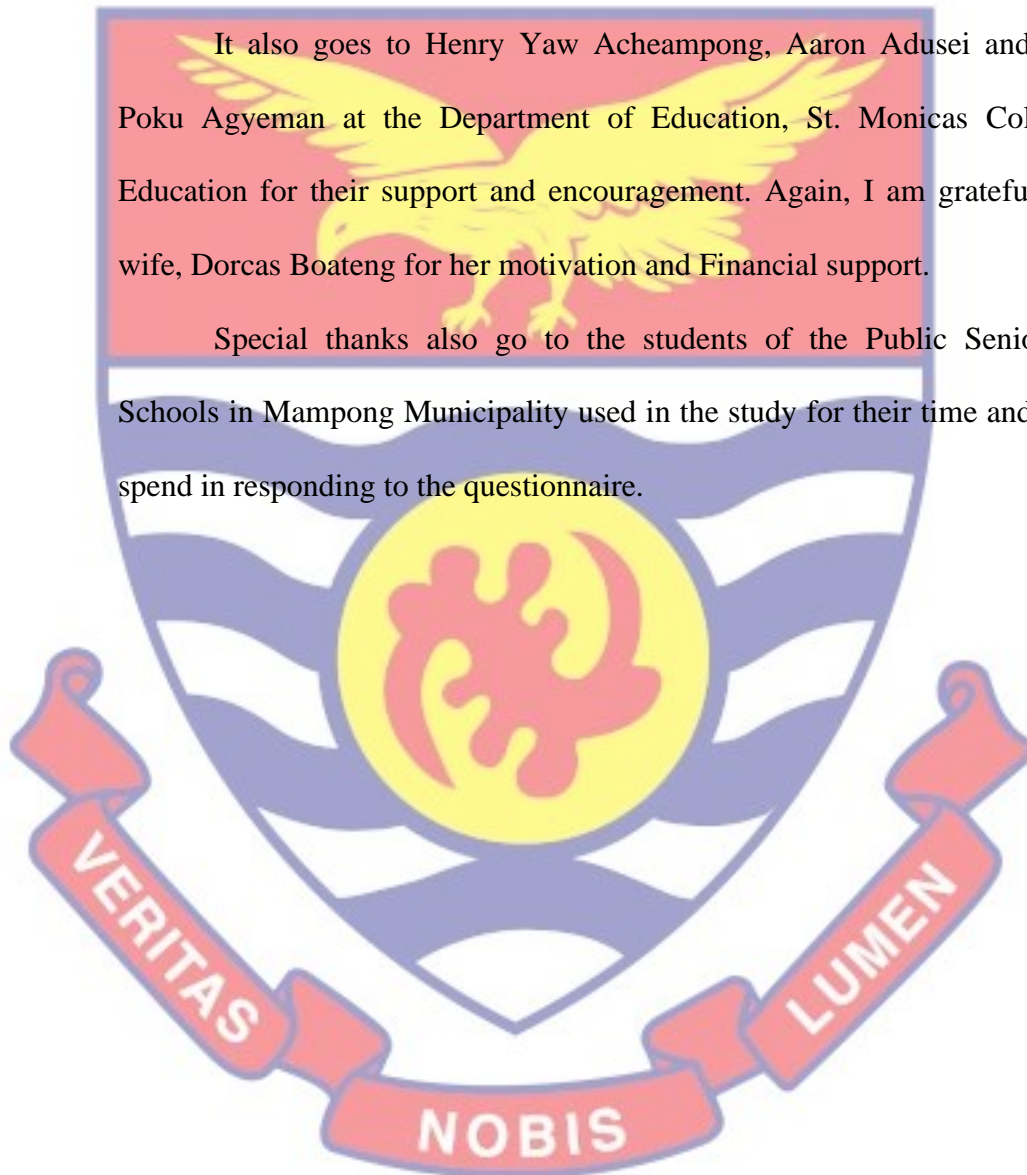


## ACKNOWLEDGMENTS

I am extremely grateful to Professor Koawo Edjah and Professor Mark Amponsah, who as my supervisors, read through the manuscript and offered useful suggestions. Their constructive comments led to the successful completion of this thesis.

It also goes to Henry Yaw Acheampong, Aaron Adusei and Emma Poku Agyeman at the Department of Education, St. Monicas College of Education for their support and encouragement. Again, I am grateful to my wife, Dorcas Boateng for her motivation and Financial support.

Special thanks also go to the students of the Public Senior High Schools in Mampong Municipality used in the study for their time and energy spend in responding to the questionnaire.



DEDICATION

To my parents



TABLE OF CONTENTS

	Page
DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGMENTS	iv
DEDICATION	v
TABLE OF CONTENTS	vi
LIST OF TABLES	xi
LIST OF FIGURE	xii
<b>CHAPTER ONE: INTRODUCTION</b>	
Background to the Study	1
Statement of the Problem	6
Purpose of the Study	10
Research Questions	10
Hypotheses	11
Significance of the Study	12
Delimitations of the Study	13
Limitations of the Study	14
Definition of the Terms	14
Organization of the Study	15
<b>CHAPTER TWO: LITERATURE REVIEW</b>	
Introduction	16
Theoretical Framework	16
Social Cognitive Theory (Bandura, 1986)	16
Ford’s Motivational Theory (Ford, 1992)	19
Theory of Planned Behaviour (TPB) (Ajzen, 2011)	22

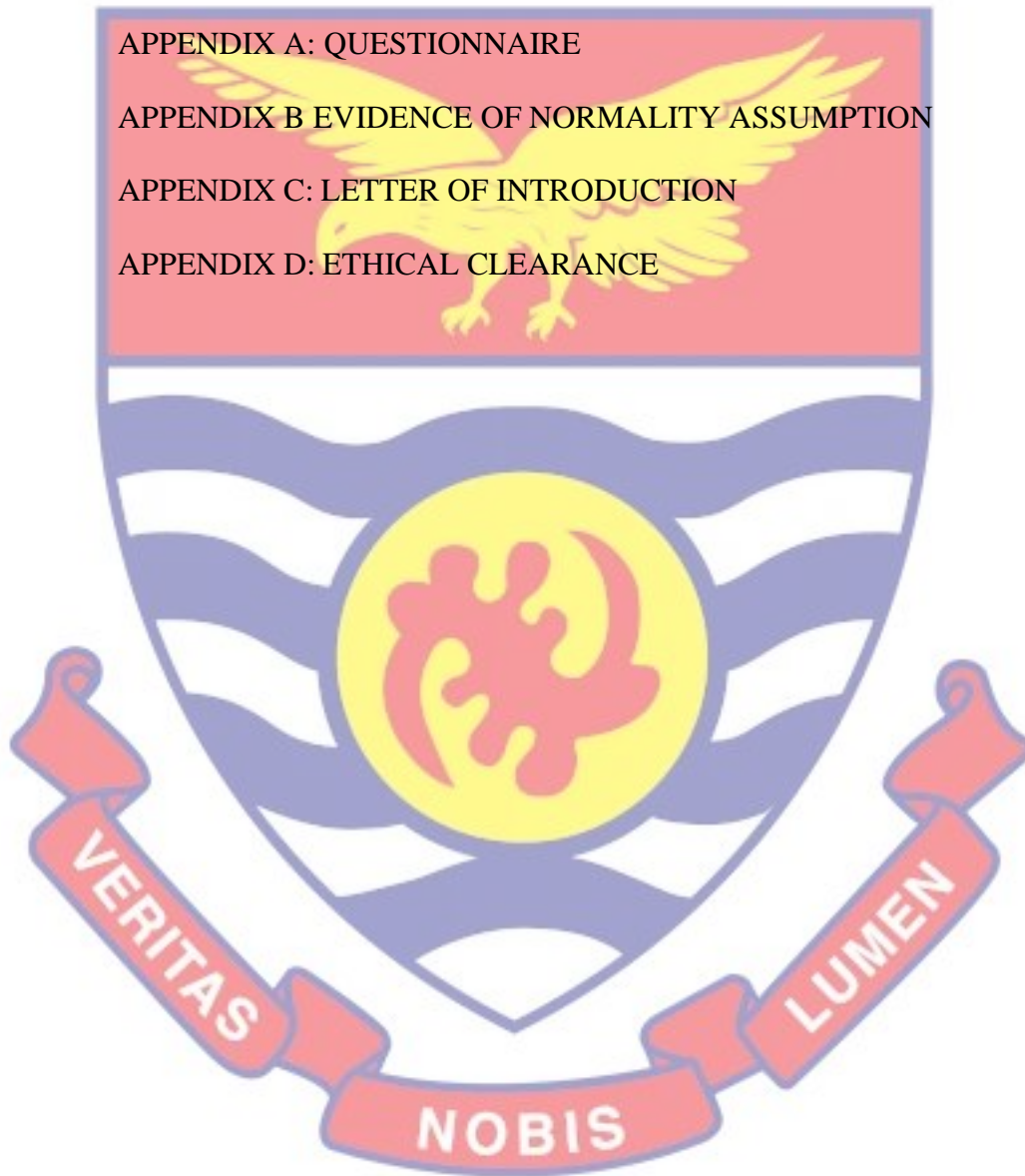
Theory of Operant Conditioning (Skinner, 1957)	29
Conceptual Review	31
Academic Programme	31
Career Choice	34
Empirical Review	38
Environmental Factors that Influence Students' Selection of Career Choice and Academic Programme	38
Parental influence	38
Socio-economic Status	47
Economic Stability	49
Family Experiences of Tertiary Education	51
Peer influences	53
Institutional Factors that Influence Students' Selection of Career Choice and Academic Programme	57
Availability of Information	57
Institutional Reputation	60
Personal Characteristics that Influence Students' Selection of Career Choice and Academic Programme	60
Academic achievement	60
Subject Area of Interest	62
Personality Influence	64
Conceptual Framework	65
Chapter Summary	66
<b>CHAPTER THREE: RESEARCH METHODS</b>	
Introduction	68



Research Design	68
Population	70
Sampling Procedures	71
Data Collection Instrument	73
Pilot Testing	74
Reliability of the Instruments	75
Validation of the Instrument	75
Data Collection Procedure	78
Ethical Consideration	79
Data Processing and Analysis	79
Research Question One	80
What are the perceived environmental factors that influence students' selection of career and academic programmes?	80
Research Question Two	80
What are the perceived institutional factors that influence students' selection of career and academic programmes?	80
Research Question Three	81
What are the perceived students' characteristics that influence their selection of career and academic programmes?	81
Hypothesis One	82
Hypothesis Two	82
Hypothesis Three	83
<b>CHAPTER FOUR: RESULTS AND DISCUSSIONS</b>	
Introduction	85
Demographic Information (Section A)	85

Section B: Research Question 1	87
What are the environmental factors that influence student’s selection of career choice and academic programme?	87
Discussions	89
Research Question 2	91
What are the perceived institutional factors that influence students’ selection of career and academic programmes?	91
Discussions	93
Research Question 3	94
What are the perceived personal characteristics that influence students’ choice of career and academic programme?	94
Discussions	96
Hypothesis Testing	97
Hypothesis One	98
Discussions	100
Hypothesis Two	101
Discussions	103
Hypothesis Three	104
Discussions	105
Chapter Summary	106
<b>CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS</b>	
Summary	108
Overview of the Study	108
Key Findings	109

Conclusions	111
Recommendations	112
Suggestions for Further Research	114
REFERENCES	115
APPENDICES	141
APPENDIX A: QUESTIONNAIRE	141
APPENDIX B EVIDENCE OF NORMALITY ASSUMPTION	146
APPENDIX C: LETTER OF INTRODUCTION	148
APPENDIX D: ETHICAL CLEARANCE	149



LIST OF TABLES

Table	Page
1 Target Population	70
2 Accessible Population	71
3 The Sample Size for selected Public Senior High schools in Mampong Municipality	73
4 Loadings, Reliability, and Average Variance Extracted	76
5 Heterotrait-Monotrait Ratio of Correlations	77
6 Demographic Characteristics of respondents	86
7 Perceived environmental factors that influence students' choice of career and academic programmes	88
8 Perceived institutional factors that influence students' selection of career and academic programmes	92
9 Perceived personal characteristics that influence students' choice of career and academic programme	95
10 Test for Normality	98
11 Gender Differences in Students' Perception of environmental factors that influence their selection of career and academic programmes.	98
12 Gender Differences in Students' Perception of institutional factors that influence their selection of career and academic programmes.	102
13 Gender difference in students' perception of personal characteristics that influence their selection of career and academic programmes	105



LIST OF FIGURE

Figure	Page
1 Factors affecting students' career anS academic programme choice	66



## CHAPTER ONE

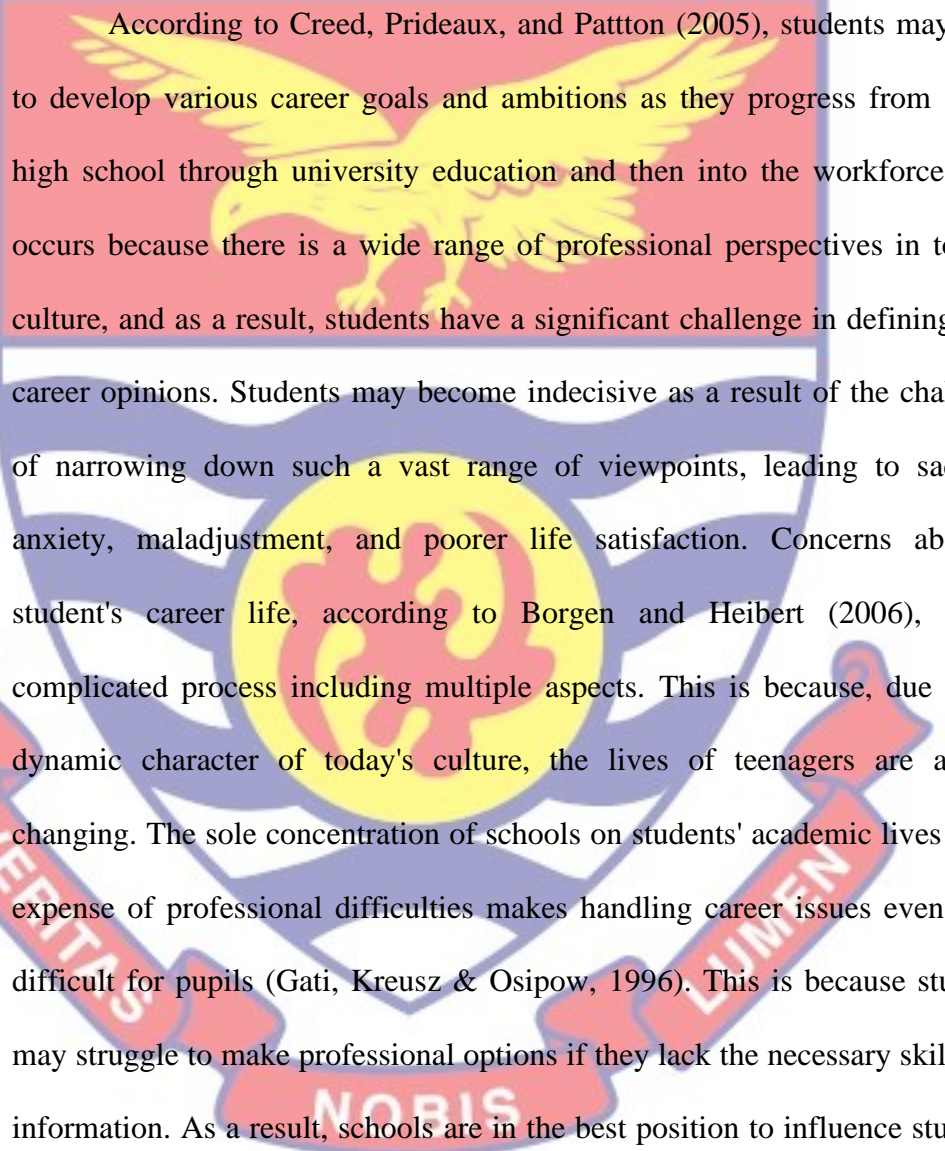
### INTRODUCTION

Choosing a career and academic programme at the senior high school is like to choosing a path while at a crossroads. A chosen career and academic programme, is one off the decision, which decides several aspects of a student's professional interests. A chosen career and academic programme can influence a wide range of educational and post-educational goals, leading to academic success, hardships or availability of job opportunities, as well as affecting study continuity, defining academic satisfaction or dissatisfaction and determining appropriate financial return and social status (Al-Rfou, 2013). But what factors influence students' career and academic programme among students are often challenging and rather elusive questions in the senior high school that academics across various streams have been facing (Al-Rfou, 2013; Bowers, 1976).

#### **Background to the Study**

Knowledge accumulation and application have become major factors in economic development. Hence, students' choice and decision making in higher education has gained greater importance because higher education has become competitive and market-driven. Higher education enables individuals to expand their knowledge and skills, express their thoughts clearly, grasp abstract concepts and theories, and increase their understanding of the world and their community (Villanueva, Vultur, Lee, Somasundaram, Fukunaga-Kalabis, Cipolla & Santiago-Walker, 2010). The decision to enroll on the courses of a higher educational institutions is extremely important in an individual's life because it is based on acquisition of knowledge and skills

from these institutions one's future career to a good extent is being built. Therefore, when making a decision regarding future university education, individuals evaluate several alternatives offered by the world of market (Villanueva et al., 2010). Choosing a university programme is one of the most important decisions people make (Doyle & Gaeth, 1990).



According to Creed, Prideaux, and Patton (2005), students may need to develop various career goals and ambitions as they progress from senior high school through university education and then into the workforce. This occurs because there is a wide range of professional perspectives in today's culture, and as a result, students have a significant challenge in defining their career opinions. Students may become indecisive as a result of the challenge of narrowing down such a vast range of viewpoints, leading to sadness, anxiety, maladjustment, and poorer life satisfaction. Concerns about a student's career life, according to Borgen and Heibert (2006), are a complicated process including multiple aspects. This is because, due to the dynamic character of today's culture, the lives of teenagers are always changing. The sole concentration of schools on students' academic lives at the expense of professional difficulties makes handling career issues even more difficult for pupils (Gati, Kreuz & Osipow, 1996). This is because students may struggle to make professional options if they lack the necessary skills and information. As a result, schools are in the best position to influence students' career and program objectives and expectations.

Schools can exert influence on the career and program choice of their students through varied ways, mostly by organizing career and program workshops (Diemer, 2007). Through such workshops, schools can impact on



career choice and decisions of the students either directly or indirectly (Kniveton, 2004). Teachers and counsellors can also engage students to find out aptitude and abilities and how these can be used to assist students in their career decisions. Dondo (2006) also suggested that the nature of the school environment and the culture within the school can determine the paths and extent of the career of the students. education therefore know that schools have significant roles to play in the careers of the students. regardless of this, career counselling and education is not given as much attention as it should be.

Career refers to “the activities and positions involved in vocations, occupation and job as well as related activities associated with an individual’s life time of work” (Zunker, 1990, p. 3). A career, in basic words, is a job or profession for which an individual has been trained and which is performed over a long period of time. Similarly, Okobiah and Okorodudu (2004) said that a career entails a wide range of job and non-job-related tasks that cover a person's whole life. Career is frequently linked to a system of choice, transition, and changes that impact an individual's position in work, education, family, social progress, and enjoyment (Okobiah & Okorodudu, 2004). It has also been stated that a career can be paid or unpaid and that it is carried out throughout one's life. A career is a series of jobs, professions, or vocations that a person holds over the course of his or her life.

Today, making career choices is difficult because of the many available careers, the staggering array of jobs, the continual changes in the economy and job market, fear of making mistakes, and the misery that is likely to happen when people get into the wrong work (Carrico, Matusovich &



Paretti, 2019). Assessing the factors that influence career choice of students is very imperative, because it will help in giving students in Senior High School (SHS) the skills and knowledge to realistically plan for their future in the world of work, which is the primary goal of education (Hemelt, Lenard, & Paepflow's, 2019). Many students often are faced with uncertainty and stress as they make career choices (Akpochafo, 2018). Most of them are not aware of what goes into career choice (Akpochafo, 2018).

Many young people enter inappropriate occupations owing to a lack of vocational guidance and career coaching, as well as ignorance, inexperience, peer pressure, recommendations from friends, parents, and instructors, or the prestige associated with specific jobs (Kabil, Allam & El-Geleel, 2018). Evidence from the researcher Hemelt et al., (2019) research on the effectiveness of career guidance in senior secondary schools in the Kumasi Metropolitan District revealed that the majority of students were unaware of major occupational groups in Ghana, which supports the assertion made by Kabil et al., (2018). Furthermore, students lacked awareness about the training and qualifications required for employment in various industries, as well as working conditions, pay, and other benefits. This obviously demonstrates that the bulk of them were unconcerned about their future employment prospects (Hemelt et al., 2019).

According to Domenico and Jones (2007), gender, socioeconomic status, and family support may influence a student's career goals. As a result, variables such as family background, personal abilities, and educational attainment may have an influence on professional aspirations and choices (Bandura, Barbaranelli, Caprara & Pastorelli, 2001). From infancy until

maturity, career aspirations are said to grow in stages or phases, according to career development theories. Migunde and Kocung (2011), for example, claimed that 11 to 14-year-olds make impulsive career decisions based on their interests, with little consideration for actual boundaries. However, young individuals between the ages of 14 and 24 are generally in the job exploration period, gradually restricting their employment options. Gottfredson's (1981) hypothesis also posits that from the age of 14, pupils begin to reconsider their profession choices and examine more realistic viewpoints.

Making program of study selections for incoming senior high school students can be difficult. This is because it is expected that students' education choices would influence their job pathways to a large extent (Issa & Nwalo, 2008). As a result, judgments made during the undergraduate years have a significant impact on adult work happiness. As a result, students at this level should be helped to build appropriate career plans.

In the past, schools did not place a high priority on career counseling. Career counseling was thought required just for those who were experiencing a career crisis and needed to make a shift. However, in recent years, there has been a greater emphasis on career counseling for persons who have yet to make a professional selection. The majority of professional selections are made as a result of career choices made in school. This is why addressing career problems in school is critical. The majority of the time, students' profession choices are influenced by their classmates. They take their colleagues' opinions into account while selecting programs, and as a result, their careers are carved out for them. In this context, the study investigates the

factors that impact SHS students' career and academic program choices in Ghana's public postsecondary institutions.

### **Statement of the Problem**

In my personal experience in the Mampong Municipality, placement of students in the tertiary education programme are generally based on student's choice with particular reference to their background knowledge in the area of choice. However, in selecting what programme of study to pursue in the tertiary institutions, aside from background knowledge, applicants also take into account other factors such as interest, peer influence, parental influence among others without adequate vocational guidance and counselling. Most of these students who are admitted to the universities faced problems of having to decide on the choice of programme to pursue which is critical decision they have to make due to its career implications. There seems to be a problem since by implication, there are number of factors that come into play when individuals are making decisions on what programme of study to pursue at the tertiary institutions.

According to a study carried out in Ghana by Akyina, Oduro-Okyireh and Owusu (2014) governments over the years have laid emphasis through educational reforms on the need to have programmes in schools that train the youth to occupy responsible positions in the society. Thus, this can be achieved through serious emphasis on guidance and counseling so that students can make right choices of programme of study. Furthermore, with the right guidance, Akyina et al. (2014) noted that students can make good plans and decisions which ultimately promote disciplines in schools. This implies that there is unarguably an influential nexus between the choice of programme



of study in a University and the area of discipline or subject choices in Senior High Schools so as to enable students channel their interests, aptitudes and abilities.

Research findings of Redmond, Quin and Archbold (2011) study suggest that students found themselves deviating from their academic needs, aspirations and aims in life. Similarly, Otuei (2017) asserted that Senior High School students have limited support in planning career directions. The proper educational counseling that may also guide students toward making intelligent and informed decisions are somewhat not sought after and this may lead to problems of coping with a course of study, lack of interest, lack of motivation and subsequently withdrawal (Redmond et al., 2011). Also, the problem of career choice among Senior High School students has generated a lot of questions and different answers among scholars (Onyekuru, 2015; Skaalvik & Skaalvik, 2017; Kutnick, Zhu, Chan, Chan, Lee & Lai, 2018). It has been a delicate issue that has to be approached with caution. Senior high school students should have the opportunity to explore all the choices available to them in order to make a logical educated plan when choosing a career (Kutnick et al., 2018).

Making career and programme choice compels one to ask whether Senior High School students are given the needed guidance on available careers relating to the programmes they will be pursuing at the tertiary levels. Are they aware of what goes into career choice? This therefore, is the essence of this research as it seeks to investigate the factors that influence career choice and choice of programme of study among four public senior high



school students of Ashanti Mampong Municipality seeking admission into tertiary institution.

In addressing the issues concerning career and academic programme choice among senior high school students, studies conducted have focused on university students (Wagenaar, 1987; Perna, 2000). For example, Ajobola, Emeghe, Oluwum and Ono (2017) examine students' choice of programme offered in the University. The study used 136 students in the study. The study revealed that 79.4% were in the university based on their parents' choice while 90% are responsible for the choice of course (programme) they are pursuing in the University based on personal interest.

Although, the findings showed accurate results that 79.4% were in the university based on their parents' choice. The current focused on senior high school students not university students. Again, the study used 136 students to achieve its aim. It is noted that using 136 students as a sample size is not laudable as far as inferential statistics is concerned (Amedehe, 2002), hence the results may have been compromised. This study intends to use more than 200 senior high students to achieve its aim.

Numerous studies have been conducted aiming to explore career choices and to identify related perspectives (Abbasi, & Sarwat, 2014). In this regard, researchers have investigated factors influencing career choice of the students, role of higher education institution in career development, role and influence of family, parents and teachers on career choice, gender difference in career choice, impact of culture and values on career choice, career success among others (Jones & Larke, 2001; Monica & Kate, 2005; Stone & Wang, 1990). Researchers have also explored factors influencing career choice

decisions of the graduate with reference to demanding occupations like, medical, accounting, engineering, computer science, information technology, agriculture, MBA (Kim & Cha, 2000; Bai, 1998). Majority, the focus of these studies remained on exploring factors influencing career choice of the students, possible gender difference and impact of culture on student career choice. Nevertheless, these studies are contextual and were conducted within specific sociocultural environment. Hence, it is argued that the outcome of these studies cannot be generalized.

Again, based on the prevailing literature, a number of issues arise: these are majority of the previous studies were conducted in Western and some Africa societies, accordingly, their findings are likely to be less applicable in the Ghanaian context because career and programme choice among Senior High students are likely to differ between Ghana and these countries due to diverse cultures, values, and beliefs (Agormedah, Britwum, Amoah, Acheampong, Adjei, & Nyamekye, 2021), most of the studies have been conducted in different fields and levels of education including medical, engineering, general college students, business students, school students and university students, there is uncertainty as to whether gender difference exist with regards to perceived environmental, institutional and personal characteristics and pertaining to the Ghanaian context, little is known about career and programme choice among senior high students. It is against this background the researcher seeks to investigate into factors influencing career and programme choice among senior high school students in the Ashanti Mampong municipality, Ghana.

### **Purpose of the Study**

The main purpose of the was to examine the factors that influenced career and programme choices among senior high school students in the Ashanti Mampong municipality, Ghana. The specific objectives are as follows;

1. Identify the perceived environmental factors that influenced students' selection of career and academic programmes in the Ashanti Mampong Municipality
2. Indicate the perceived institutional factors that influenced students' selection of career and academic programmes in the Ashanti Mampong Municipality
3. Identify the perceived personal characteristics that influenced students' selection of career and academic programmes in the Ashanti Mampong Municipality
4. Examine gender difference in the perceived environmental factors that influence senior high school students' in the Ashanti Mampong Municipality in the selection of career and academic programmes
5. Identify gender difference in the perceived institutional factors that influence senior high school students' in the Ashanti Mampong Municipality in the selection of career and academic programmes
6. Examine gender difference in the perceived personal characteristics that influence senior high school students' in the Ashanti Mampong Municipality in the selection of career and academic programmes

### **Research Questions**

The following research questions guided the conduct of the study:



1. What are the perceived environmental factors that influenced senior high school students' in the Ashanti Mampong Municipality in the selection of career and academic programmes?
2. What are the perceived institutional factors that influenced senior high school students' in the Ashanti Mampong Municipality in the selection of career and academic programmes?
3. What are the perceived personal characteristics that influenced senior high school students' in the Ashanti Mampong Municipality in the selection of career and academic programmes?

### **Hypotheses**

The following hypothesis were formulated to guide the conduct of the study:

*H01:* There is no statistically significant gender difference in the perceived environmental factors that influence senior high school students' in the Ashanti Mampong Municipality in the selection of career and academic programmes

*HA1:* There is a statistically significant gender difference in the perceived environmental factors that influence senior high school students' in the Ashanti Mampong Municipality in the selection of career and academic programmes

*H02:* There is no statistically significant gender difference in the perceived institutional factors that influence senior high school students' in the Ashanti Mampong Municipality in the selection of career and academic programmes

*HA2:* There is a statistically significant gender difference in the perceived institutional factors that influence senior high school students' in the Ashanti Mampong Municipality in the selection of career and academic programmes



*HA3:* There is no statistically significant gender difference in the perceived personal characteristics that influence senior high school students' in the Ashanti Mampong Municipality in the selection of career and academic programmes

*HA3:* There is a statistically significant gender difference in the perceived personal characteristics that influence senior high school students' in the Ashanti Mampong Municipality in the selection of career and academic programmes

### **Significance of the Study**

It is increasingly becoming crucial for management of Higher Education Institutions in Ghana in particular to understand the context-specific variables that strongly influence senior high school students' choice of programmes of studies in Higher Education Institutions. This study would therefore provide heads of institution with information as feedback for developing effective management strategies for attracting and retaining students. The study would also provide school guidance coordinators and counsellors with better understanding of the factors that influence students' choice of programmes in the tertiary institutions so that it would help stakeholders to invest resources to train and educate students to make the right decisions for life.

Counsellors would be in a better position to give students career counselling that would help them in making their choice of career and academic programmes. The study would help counsellors to know the type of guidance programmes to organize in schools that would help prevent

challenges students encounter in their choice of academic programmes and careers.

The findings of the study would serve as information for other researchers to investigate other aspects of factors influencing career choice and academic programmes among Senior High School students.

The results of the study would help guidance and counselling unit of Mampong municipal Education directorate to design a programme for Senior High Schools in Mampong Municipality that would address the factors that influence career choice and academic programmes in the public tertiary institutions in Ghana.

Finally, the findings would be of great importance to parents, guardians and other caregivers in that they would be equipped with the right information to enable them know the personality of their wards so that they would guide them to choose the right careers and academic programmes.

#### **Delimitations of the Study**

A study of this nature could have been carried out across the whole country; however, this study was restricted to only four public senior high schools in the Ashanti Mampong Municipality. The study did not survey all factors that influence students, selection of Academic programmes and career choice: it was confined to environmental factors, institutional factors, and students' characteristics. The study also focused on third year students who were selected from the four senior high schools in the Ashanti Mampong Municipality.

### Limitations of the Study

The study was limited because it only focused on using third year senior high school students in the Ashanti Mampong municipality without covering other levels.

The data gathered was limited because of the design adopted for the study. The findings would have been quite in-depth if a mixed methods design was employed instead.

Unfavourable weather and torrential downpours disrupted some of my scheduled appointments with respondents, and absenteeism on the part of some of the target group members hampered the administration of the questionnaire.

### Definition of the Terms

*Programme of Study:* It consist of courses required to complete a specific degree, diploma or certificate.

*Career* - Career refers to the job or work one does to earn a living.

*Career Choice* - The decision to pursue a particular career path or vocation.

Parental advice, vocational counseling, and training possibilities are frequent factors.

*School Guidance Counsellor* - A professional trained in school guidance and counselling who assists students in choosing their career and solving educational problem in schools.

*Tertiary Institution* – This refers to the educational level following the completion of a school providing a secondary education. It includes Universities, Polytechnics, Colleges of Education, Nursing training colleges and Institute of Journalism.



*Environmental factors* - In this study, environmental factors include parents' influence, socioeconomic status, economic stability, family experience of tertiary education and peer influence which guides in decision making on career choice and academic programmes.

*Institutional factors*- In this study, institutional factors include information availability and institutional reputation which guide in decision concerning career choice and academic programmes.

*Students' characteristics factors*- In this study, students' characteristics factors include academic achievement, subject area of interest and personality which guide decision with respect to career choice and academic programmes.

### **Organization of the Study**

The study was organized into five chapters. The first chapter dealt with the introduction and background to the study, the statement of problem, purpose of the study, research questions, and significance of the study, delimitation, limitation of the study, operational definition of terms and organization of the study. The second chapter covered literature review in three perspectives, namely, theoretical, conceptual and empirical perspectives. Chapter three focused on the methodology employed in undertaking the study of area of study. It focused on the research design, population, sample and sampling procedures, research instrumentation, pilot testing, data collection procedure and data analysis procedure. The fourth chapter dealt with results and discussion of the findings and the final chapter also dealt with summary, conclusions and recommendations.



## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

This chapter presents a review of relevant literature regarding students career choices and their choice of programme of study in tertiary institutions.

Relevant theories that underpin the concepts in the topic were discussed. The second aspect of the literature review was the conceptual review which discussed key concepts developed from the theoretical review. Furthermore, empirical studies were reviewed to compare the assessment of research findings in a way that revealed the gaps that were used to justify the essence of the study. Finally, a well-designed conceptual framework was discussed to throw more light on the research objectives of the study.

#### Theoretical Framework

The theoretical framework is a conceptual model that establishes a sense of structure that guides the research (Osuala, 2005). For the purpose of this research, the following theories were reviewed: Social Cognitive theory, Fords Motivational theory, Theory of planned behaviour, and B.F Skinners theory of Operant Conditioning.

#### Social Cognitive Theory (Bandura, 1986)

Bandura's Social Cognitive Theory (SCT) emphasizes the bidirectional interactions between three elements, namely person, environment and behaviour (Bandura, 1986). All the three elements operate interactively as determinants of one another. Bandura's SCT theorized that a person's confidence that he/she can successfully perform a task, has a mutual relation with the outcome expectations, or the consequences people anticipate resulting

from a particular behaviour. These two constructs (self-efficiency and outcome expectations) then influence a person's level and type of interests. Many different activities are attempted through a person's educational career, but generally a persistent interest is only developed in activities in which the person expects that he/she will be successful and in which a positive outcome is anticipated (Lent et al., 2015).

Consequently, individuals do not solely react to environmental events; they construct their own environments and do well to alter them. Cognitive events define which environmental measures will be observed and how they will be inferred, structured, and acted on. Cattell and Dual (2018) asserted that either positive or negative feedback from behaviour, impacts people's thinking and the ways in which they act to change the environment. However, one of the main criticisms of the social-cognitive theory is that it is not a unified theory. This means that the different aspects of the theory may not be connected. The theory is so broad that not all of its component parts are fully understood and integrated into a single explanation of learning and personality (Halder, Roy & Chakraborty, 2010).

Although Social Cognitive Theory (SCT) can explain some quite complex behaviour, it cannot adequately account for how individuals develop a whole range of behaviour including thoughts and feelings. There are a number of cognitive controls over our behaviour and just because we have had experiences of violence does not mean we have to reproduce such behaviour. It is for this reason that Bandura modified his social learning theory in 1986 and renamed it Social Cognitive Theory (SCT), as a better description of how we learn from our social experiences.

Some criticisms of Social Cognitive theory arise from their commitment to the environment as the chief influence on behaviour (McLeod, 2016). It is limiting to describe behaviour solely in terms of either nature or nurture and attempts to do this underestimate the complexity of human behaviour. It is more likely that behaviour is due to an interaction between nature (biology) and nurture (environment) (Thurston, Smith, McLeod & Eva, 2015).

Irrespective of this criticism the theory however, is very relevant to this study because it posits that the bidirectional interactions between three elements, namely person, environment and behaviour determines individual decisions. Again, social cognitive theory has a significant role to play in this study in that it helps students to make the right choice of their career and academic programmes because as they take many courses at the Senior High school level, the students are able to examine his or her own interest and make the right selection of programme he or she thinks would help him or her to be successful so that a positive outcome of getting a good job is achieved.

Social cognitive theory is relevant to this study because individuals choose a programme of study at the tertiary level and career which they have the full efficacy or confidence to pursue. Students critically consider their personality, environment and behaviour since these are the key to achieving success in any academic programme and career path. In the context of social cognitive theory, the personality of the individual in a particular subject area enable him or her to remain focused since he or she expects a positive outcome such as getting good grades and securing a job. For success to be achieved it behooves on the individual students to adopt a behaviour which



would foster his or her academic and career choice. Once thought of feelings, beliefs about a programme, personal motivation have an impact on student's outcome and expectation can help foster positive adjustment to their respective learning environments which would eliminate behaviours such as withdrawal, low motivation and loss of interest in a particular academic programme and career. This is in line with Bandura statement which states that personality, behaviour and the environment interact to determines one's personality choice

### **Ford's Motivational Theory (Ford, 1992)**

The theory focuses on the individual as the unit of analysis, but embeds the individual in the biological, social, and environmental contexts that are crucial to development. Martin Ford's Motivational Theory (FMT) attempts to describe the development of the whole person-in-context (Pintrich & Schunk, 1996). Ford proposed a simple mathematical formula that attempts to represent all the factors in one model. The formula for effective person-in-context functioning is: *Achievement = (Motivation x Skill x Responsive Environment)*. The explanation of each construct in the theory are as follow

**Achievement:** is the process or fact of achieving something

**Motivation:** Motivation needed to initiate and maintain the activity until the goal directing the episode is attained.

**Skill:** The person must have the skill necessary to construct and execute a pattern of activity that will produce the desired result.

**Responsive Environment:** The person must have the cooperation of a responsive environment that will facilitate progress towards the goal (Ford, 1992).



In the motivational systems theory, motivation is defined as the organized patterning of three psychological functions that serve to direct, energize, and regulate goal-directed activity. These are personal goals, emotional arousal processes, and personal agency beliefs” (Ford, 1992, p. 3). Symbolically this definition of motivation can be represented as a formula of

three interacting components:

$$\text{Motivation} = \text{Goals} \times \text{Emotions} \times \text{Personal Agency Beliefs}$$

Therefore, motivation is an interactive construct representing the direction a person is going, the emotional energy and affective experience supporting or inhibiting movement in that direction, and the expectancies that a person has about reaching his or her destination or achieving his or her goals. FMT does not prefer or rank, any one of the three components but it views all three components as functioning in an interdependent triumvirate process. If any one of the components is absent in a particular episode, then the subject will not be motivated to initiate activity even though the other two components are firmly in place (Ford, 1992).

There has been a great deal of disagreement among researchers about the nature of motivation and the operation of motivational processes (Pintrich, 1999). However, most researchers agree that the presence of motivation was inferred from the behavioural indicators, choice of tasks, effort, persistence, and achievement. Although the index choice of task may sound appealing, it is usually not a useful index in the academic setting as students typically have few choices in that environment. In the academic setting, students who are motivated to learn usually expend effort, the second index, to succeed. Students motivated to learn usually expend greater mental effort during

instruction, organizing, and rehearsing information, monitoring level of understanding, and relating new material to prior knowledge (Pinrich, 1999).

Self-efficacy, on the other hand, correlated positively with effort and achievement (Schunk, 1991). In the academic environment, students who are motivated to learn should persist at tasks when they encounter obstacles.

Persistence is important as learning does not always result in instant gratification. Persistence relates to the sustained component of motivation and the greater the persistence, the greater the accomplishments and rewards. Researchers frequently utilize persistence as a valid and measurable component of motivation. Brown and Inouye (1978) had college students solve anagrams and on completion they were informed that they had performed as well as the model. The students were then made to observe another model which failed, and were made to attempt the same anagrams as the failed model. The students outperformed that model, showing that the students were more competent than the model, which led to higher self-efficacy and persistence. Student achievement may be viewed as an indirect index or measure of motivation.

Research has shown that students who chose to engage in a task, expended effort, and persisted, were more likely to achieve at a higher level than those who gave up (Pintrich & Schrauben, 1992; Schunk, 1991) and researchers have obtained positive relationships between achievement and motivational indices of choice of task, effort and persistence. In a simple but effective experiment, Schunk (1991) found that the more practice students obtained while in training (effort and persistence), the more successful they were in solving similar problems on an examination (measure of

achievement). Student interacting with a responsive environment is being motivated to choose a particular academic programme in the university (Pintrich, Roeser, & De Groot, 1994).

The theory is relevant to this study because achievement in any career activity and academic programme of study depends on motivation which comes from friends, parent, teachers, family members and achievement of other relatives. Achievement is also determined by the skill a student possess. With regards to learning, cognitive skills would help students to assimilate, and accommodate any given information needed to function on the job and at school. Practical skill which calls for coordination of motor abilities help students to plan for their future in a particular job.

#### **Theory of Planned Behaviour (TPB) (Ajzen, 2011)**

The theory of Planned Behaviour is one of the models most frequently used in the literature to explore factors influencing perception and subsequent behaviour of people (Ajzen, 2011). It focuses on pro-environmental behaviour characteristics including recycling, travel mode choice, energy consumption, water conservation, food choice, and ethical investment (Conner & Sparks, 2015; Armitage & Conner, 2001; Armitage & Conner, 2001). The Theory of Planned Behaviour (Ajzen, 1988) argues that the best way of determining people's perceptions is to predict their behaviour. Ajzen (1988) observed that people's intention will not express itself in behaviour if it is physically impossible to perform the behaviour.

The Theory of Planned Behaviour started as the Theory of Reasoned Action in 1980 to predict an individual's intention to engage in a behaviour at a specific time and place. The theory was intended to explain all behaviour



over which people have the ability to exert self-control. The key component in this model is behavioural intent; behavioural intentions are influenced by the attitude about the likelihood that the behaviour will have the expected outcome and the subjective evaluation of the risks and benefits of that outcome. The TPB has been used successfully to predict and explain a wide range of health issues including smoking, drinking, health services utilization, breastfeeding and substance use (Yan & Sin, 2014). Similarly, (Sharma, Achuth, Deb, Puthankattil, & Acharya, 2018; Stampoltzis, Tsitsou & Papachristopoulos, 2018) have used it to predict consumer behaviour and purchasing intentions. In the academic setting, Wilson, Marks and Durkin, (2018) have adopted it to explain maladaptive behaviour in students, career choices and career paths of students.

The TPB states that behavioural achievement depends on both motivation (intention) and ability (behavioural control). It distinguishes between three types of beliefs namely behavioural which are opinions of oneself about the behaviour, normative which are opinions of others about the behaviour and control which is self-efficacy towards the behaviour. The TPB is comprised of six constructs that collectively represent a person's actual control over the behaviour. These are attitudes, behavioural intention, subjective norms, social norms, perceived power, and perceived behavioural control

1. *Attitudes* - This is the degree to which a person has a favourable or unfavorable evaluation of the behaviour of interest. It entails a consideration of the outcomes of performing the behaviour.



2. *Behavioural Intention*: This refers to the motivational factors that influence a given behaviour where the stronger the intention to perform the behaviour, the more likely the behaviour would be performed.

3. *Subjective Norms*: This refers to the belief about whether most people approve or disapprove of a behaviour. It relates to a person's beliefs about whether peers and people of importance to the person think he or she should engage in a particular behaviour.

4. *Social Norms*: This refers to the social and cultural norms that govern a group of individuals or a larger cultural setting. In a group of people, social norms are regarded normative or standard.

5. *Perceived Power*: This refers to the perceived presence of factors that may facilitate or impede performance of a behaviour. Perceived power contributes to a person's perceived behavioural control over each of those factors.

6. *Perceived Behavioural Control*: This refers to a person's perception of the ease or difficulty of performing the behaviour of interest. Perceived behavioural control varies across situations and actions, which results in a person having varying perceptions of behavioural control depending on the situation. This construct of the theory was added later, and created the shift from the Theory of Reasoned Action to the Theory of Planned Behaviour

According to Ajzen (1988) though the core objective of TPB is to explain behaviour, the question that arises is that if intention can explain behaviour, then how can intention be explained? The answer to this dilemma in

Ajzen's opinion is that among the six constructs that collectively represent a person's actual control over behaviour, three determinants can actually explain behavioural intention. These are

1. The attitude (opinions of oneself about the behaviour)
2. The subjective norm (opinions of others about the behaviour);
3. The perceived behavioural control (self-efficacy towards the behaviour).

According to Ajzen (1988), attitudes, subjective norms and perceived behavioural control predict the intention, which in turn predicts the behaviour. Background variables, as demographic factors, are supposed to influence the behaviour through the three determinants and the intention. Attitudes, subjective norms and the perceived behavioural control, explain the behavioural intention before the behaviour takes place. This model gives a clearer explanation of the processes and factors that influence student's selection of career choice and academic programme in into public tertiary institutions. The student's attitude gives an illustration of his or her settled way of thinking or feeling about his or her career as such determined the programme he or she chooses to study at the university.

It can be further observed that by exhibiting such behaviour, the intention of the students can become known. This assertion is in line with the notion of Seacat and Boileau (2018) that subjective norms are determined by the perceived social pressure from others for an individual to behave in a certain manner and their motivation to comply with those people's views. Furthermore, the TPB also perceived behavioural control as an estimate of the skills needed for expressing the behaviour and the possibility to overcome barriers.

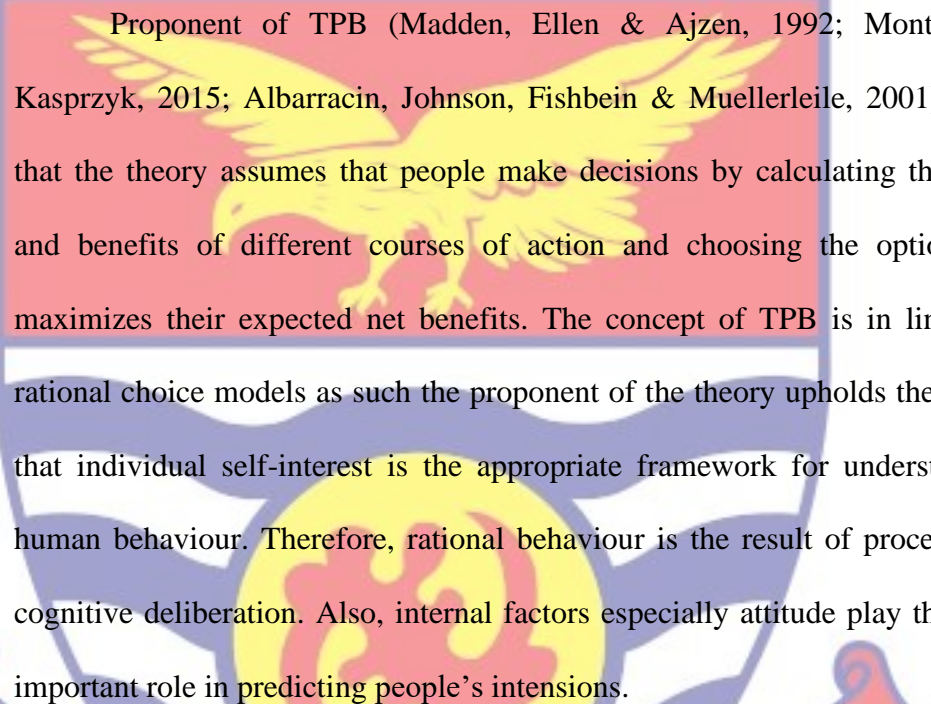
This means that perceived behavioural control has a direct influence on behaviour. Ajzen states that for a good and predictive value of the model, it is important for the model variables to be defined on the same level of specificity. Similarly, Uhlaner (2018) and Herfeld (2018), argued that by adopting the TPB, prediction of students' selection of programme of study in the tertiary institutions will not be found in the attitude toward the environment, but in the attitude toward their career choices.

Most critics of TPB (Steinmetz, Knappstein, Ajzen, Schmidt & Kabst, 2016; Paul, Modi & Patel, 2016) point out that the theory is limited in terms of environmental and economic influences. However, over the past several years, researchers (Schaller, Patil & Malhotra, 2015; Hagger, Polet & Lintunen, 2018; Wang, Lin & Li, 2018) have used some constructs of the TPB and added other components from behavioural theory such as classical conditioning and operant conditioning to make it a more integrated model. This has been in response to some of the limitations of the TPB in addressing public problems. There are several limitations of the TPB, which include:

1. It does not account for other variables that factor into behavioural intention and motivation, such as fear, threat, mood or past experience.
2. It does not consider normative influences; it still does not take into account environmental or economic factors that may influence a person's intention to perform a behaviour.
3. It assumes that behaviour is the result of a linear decision-making process, and does not consider that it can change over time.



4. While the added construct of perceived behavioural control was an important addition to the theory, it doesn't say anything about actual control over behaviour.
5. The time frame between "intent" and "behavioural action" is not addressed by the theory.



Proponent of TPB (Madden, Ellen & Ajzen, 1992; Montano & Kasprzyk, 2015; Albarracin, Johnson, Fishbein & Muellerleile, 2001) argue that the theory assumes that people make decisions by calculating the costs and benefits of different courses of action and choosing the option that maximizes their expected net benefits. The concept of TPB is in line with rational choice models as such the proponent of the theory upholds the notion that individual self-interest is the appropriate framework for understanding human behaviour. Therefore, rational behaviour is the result of processes of cognitive deliberation. Also, internal factors especially attitude play the most important role in predicting people's intentions.

From a policy perspective, advocates of TPB (Raab, Baloglu & Chen, 2018; Passafaro, Livi & Kosic, 2019; Sussman & Gifford, 2019) are of the view that policy interventions that flow from this model are relatively straightforward and seek to ensure that consumers have access to sufficient information to make informed choices. Since TPB is subset of rational choice models (Uhlener, 2018 & Herfeld, 2018), it shares some of the critiques that the model has been subjected to. The prominent critiques are based on the following important claims and arguments:

1. It is well known that human behaviour is extremely complex and consists of social, moral and altruistic behaviour as well as simply self-



interested ones. More often, behaviour is embedded in collective and social decision-making contexts and other contextual factors. These factors continually shape and constrain individual preference.

2. Habits and routines - which Simon (1972) referred to as procedural rationality - bypass cognitive deliberation and undermine a key assumption of the model.

3. Emotional or affective responses appear to confound cognitive deliberation. It is well known in marketing theory, for example, that consumers build affective relationships with consumer goods.

With regards to TPB, it can be attributed to the fact that students may make certain career choices and pursue particular programme of study in the university if they believe that an important person or group of people will approve and support their decisions. Hence, they will form a particular behaviour and act on it.

The TPB is relevant to student's choice and academic programme because achievement of students in any field of endeavour is influenced by their personal evaluation they conduct as a way of predicting the outcome of their programme of interest. When a student anticipates a favourable outcome from what he or she intends studying at the university or college, he or she is personally motivated to take that programme since the interest of the learner is developed. The intention of students about certain career and academic programme covered at the tertiary institution is influenced by opinions of others such as teacher, friends and relatives before they make their decisions about the programme of study and the career pursuits. This is because intentions of students in the senior high schools are been influenced by the

environment. Students' intentions are also regulated by their self-efficacy which direct them to make a final decision with regards to selection of career and academic programme.

### **Theory of Operant Conditioning (Skinner, 1957)**

Skinner based his theory on the idea that learning is a function of change in behaviour whilst changes in behaviour are the result of an individual's response to events that occur in the environment (Skinner, 2019). Available theoretical studies have significantly explained the role of reinforcement in career choice and selection of academic programmes.

Skinner defined environment as factors like society, family, peers and other institutions that an individual may be exposed to. Based on the extent of influence of these environmental factors, an individual's response produces a consequence action required to solve a dilemma (Rutherford, 2017). In this regard, the theory argues that when a particular Stimulus-Response (S-R) pattern is reinforced (rewarded), the individual is conditioned to respond accordingly (Skinner, 2017). This means that the distinctive characteristic of operant conditioning relative to previous forms of behaviourism is that an individual can emit responses instead of only eliciting response due to an external stimulus (Skinner, 2017).

Skinner is noted as stating that reinforcement is the key element in his theory (Belisle, Stanley, Alholail, Galliford & Dixon, 2019). Skinner went on to define reinforcement as anything that strengthens the desired response. It could be verbal praise, a good grade or a feeling of increased accomplishment or satisfaction. The theory of operant condition, according to Ghiselin (2018) also defines negative reinforcement as any stimulus that results in the

increased frequency of a response when it is withdrawn. A great deal of attention was given to schedules of reinforcement and their effects on establishing and maintaining behaviour (Skinner, 2017). One of the distinctive aspects of Skinner's theory in Michael's (1982) opinion is that it attempted to provide behavioural explanations for a broad range of cognitive phenomena.

Reinforcement theory (Skinner, 1963) asserts that an individual's behaviour is a function of its consequence. Reinforcement theory is built on operant conditioning suggests that environmental factors (eg reward) contribute to the shaping of behaviour in the human organisation. Positive reinforcement is a desirable consequence that follows a response and increases the probability that a response would be repeated while negative reinforcement is the removal of an unpleasant stimulus when a desired response occurs (Management Study Guide, 2013).

A question Skinner had to deal with was how people get to more complex behaviour (Fruhen, Rossen & Griffin 2019). He responded with the idea of shaping or the method of successive approximations. Basically, it involves first re-enforcing a behaviour only vaguely similar to the one desired. Once that is established, according to Fruhen et al (2019), a person looks out for variations that come a little closer to what they want until they are able to perform the behaviour that would never show up in ordinary life. Champagne (2020) argued that Skinner and his students have been quite successful in teaching simple animals to do some quite extraordinary things based on this concept. Beyond fairly simple, Champagne noted that, Skinner explained that shaping also accounts for the most complex of behaviour and avers that people gently shape their environment to enjoy certain things.



With regards to Skinner's theory, when a student is positively reinforced for performing well in a particular subject of study, he or she is highly influenced by the reward to pursue that programme of interest at the tertiary level since that reward operates as a consequence to shape the learning attitude of students.

Skinner's theory is relevant to this study because environmental factors such as reward contributes to shaping the behaviour to master a particular skill or academic discipline in a particular institution. This is appeared to increase the frequency of a person liking a particular programme so that it becomes permanent. So, when a learner is rewarded for performing well in a programme, it will positively reinforce him or her to keep learning that course to the tertiary institution which would indirectly form the basis of his interest.

### **Conceptual Review**

The conceptual review would be discussed under the following sub-headings;

1. Academic programme.
2. Career choice.

### **Academic Programme**

According to Ministry of Education, and Youth and Sports in Ghana White Paper on the Report of the Education Reform Review Committee (2004), the system of Senior High School education should eventually embrace the under listed five programmes, but with a great deal of common content and flexibility for the adaptability of its development of individual aptitudes and the adaptability of its products to changing job opportunities and technological development:



- 1) General education with electives in either arts or science
- 2) Vocational education with electives in either home economics or visual arts
- 3) Technical education
- 4) Agricultural education and
- 5) Business education

The report further states that the following core subjects should be offered in the first 2 years of the 4year Senior High School programme. They are: mathematics, computer studies, general science, social studies and English. As soon as enough teachers can be trained, French will be added to the list of compulsory subjects.

In each of the programmes, students are required to select 3 or 4 elective subjects in the second year to pursue alongside the above-mentioned core subjects. The elective subjects for the arts programme are Literature, Christian Religious Studies, Government, History, Economics, Geography, Twi and Elective Mathematics. Those for science programme are Physics, Chemistry, Biology and Elective Mathematics. General Agriculture, Chemistry, Physics, Animal Husbandry and Elective Mathematics are the elective subjects for agriculture programme. In the business programme, students are to pursue Accounting, Typing, Introduction to Business Management, Economics and Business Mathematics and Costing as their elective subjects. The elective subjects for home economics programme are Foods and Nutrition, Clothing and Textiles, General Knowledge in Art, Economics and Chemistry. Finally, students who pursue visual arts

programme do General knowledge in Art, Textiles, Graphic Design, Picture Making, Economics and Chemistry as their elective subjects.

According to the Ghana Education Service (2004) on the Computerized School Selection and Placement System (CSSPS), prior to 1987, placement of students into Senior High Schools and programmes offered by the schools were through Common Entrance Examination (Aptitude Test) and the process was school-based where admission letters were issued to successful candidates. With the view of increasing access to Senior High School education, the Basic Education Certificate Examination (BECE) was introduced. The Basic Education Certificate Examination results are used to select and place candidates into Senior High Schools and programmes run in the schools.

At the introduction of the Basic Education Certificate Examination, according to Ghana Education Service (2004) Technical Working Committee Report on the Computerized School Selection and Placement System (CSSPS), selection of students to high schools and programmes in them were done manually. The manual system, according to the report, was beset with several problems resulting in slow and laborious system of students' selection. As a result of this, in 2004, the Computerized School Selection and Placement System (CSSPS) was introduced to replace the manual system (GES report on CSSPS, 2004).

According to the report, selection of students to programmes in Senior High Schools is done through the use of raw scores of six subjects in the Basic Education Certificate Examination instead of grades in those subjects. For entry into programmes in Senior High Schools, scores in 4 subjects in the

Basic Education Certificate Examination namely English, Mathematics, Integrated Science and Social Studies plus candidates scores in two other subjects are used in the selection. For the technical and vocational programmes or institutions, English, Mathematics, Integrated Science and Pre-technical/Vocational skills plus candidates scores in 2 other best subjects in the Basic Education Certificate Examination are used. Previously, students were to select 4 schools and 4 programmes they wished to pursue at Senior High School. However, there has been some modification of the number of schools and programmes to be selected recently. In a report titled “Computer Selection Reviewed” which appeared in the Ghanaian Times, written by Akpalu (2009) prospective Senior High School students now have opportunity to select 6 schools and 6 programmes they prefer to pursue at the Senior High School. They are made to pursue only one of these 6 selected programmes at the Senior High School level.

### **Career Choice**

Recent studies show that every one in three college graduates could not find employment requiring a college degree (National Commission’s website, 1989). It is also stated that relevant work experience has given students an upper hand in building a career.

Experience rather than education seemed to carry more value in some career choices. A statement from the National Commission (2012) on Cooperative Education indicated that cooperative education combined educational, financial, and career building opportunities. High school students (and parents of those students) should be aware of opportunities such as cooperative education. The commission stated that cooperative education,



which has existed for over 90 years, should be an important criterion for selecting the right college (Mberia & Midigo 2018).

Many times, the career that the student may have finally settled on, after much anguish, many no longer exist when the student is ready. Olsten Corporation, a temporary hiring agency, stated that as a result of the downsizing and reorganization of the past decade, many organizations have pared down to “core group of full-time employees complemented by part-timers and networks for flexible staffing” (Kerka, 1997, p.27). Kerka (1997), stated that training to be portfolio workers, managing our skills as if we were our own job entity, may be the opportunities students will be faced with in the future. He stated that individuals should consider themselves as a collection of attributes and skills, not a job. The key skills of the portfolio workers are versatility, flexibility, creativity, self-direction, interpersonal and communication skills, a facility with computer and information technology, the ability to learn continuously, and the ability to manage work, time and money (Kerka, 1997). This can be quite different from the traditional view as in known today. Lemke, Ren, Alley, Allison, Carrasco, Flato, and Zhang (2007) states that fundamental changes of attitude and identity will have to be made. Ideal job is the next variable that influences the type of career choice that a student makes.

According to Super, Savicks and Super (1996), the career choice that students take is entrenched in the way they perceive a job to be, most take careers which conform to what they perceive to be an “ideal job” and their career decision-making maturity. Professional choice is not ordinary corresponding process; rather, it is a choice made in a situation of many

persuading factors (Omari, 2014). The insight of the perfect job turns as a screen for job suitability and inspires the choice process. One has to have an idea of what a perfect job is in his or her head, precisely what one desires to get up and go to do every day (Mberia & Midigo 2018).

Early career choice has been a cultural and developmental duty that students are required to achieved by the end of their high school from surveyed high schools; varied difference existed in career choice maturity (Hewitt, 2012). According to Mberia and Midigo (2018) the most prosperous schools, career choices were made, and students entering college or advanced training knew what they needed and what they were going to do. They explained that in the lower income schools, the lack of career decision-making was the norm of the day.

According to Olayinkya (2009), in a study found that most teenagers picked careers without relating them to their interest and ability to handle the nature of job. Adeyinka (2001) states that students don't just choose a career just for sake but they need to link the career they are taking to the ideal job.

According to Newton, Grayson and Whitley (1998), education plays a key part in how people make a career choice. Whereas some professions require formal education, one's opportunities are limited without the proper education. If one wishes to know which professions best fit your education, try and look at some of the job adverts and it will show all the education background one needs to have to meet the requirement (Hewitt, 2010).

Education falls under opportunities for students because education differs in terms of the system of education, the quality of education and even the level of education (Hooley, 2013). There are those students who are

privileged to have access to the best and quality education and even to the highest level of education whereas others do not. Those who have access to quality education are most likely going to make their career choices early (Mberia & Midigo 2018).

According to Mberia and Midigo (2018) the level of parent, guardance and role models education have an influence in the student's career choice. They believe that the level of education for instance of ones parents would definitely affect the type of career choice he or she makes.

In 1998, a study was conducted at the University of Maine (as cited by Moro, 2000) to find out the extent to which school personnel influenced student's career plan. Thirty-nine percent (39%) Of respondents indicated their high school teachers and the programmes read at the senior high school had been most influential in their decision, while 20% indicated that their university influenced their career choice.

Johnson (2004), studied determinants of career choice of students using a sample of 300. He concluded from his studies that school personnel influences were more pronounced on students in the boarding school. This was because the boarders had a much closer personal contact with teachers than day students. He found that as many as 41% of freshmen had known one or two teachers well enough to be very friends with them and were able to talk over such matters as future careers with them. Twenty-six percent (26%) knew three or four teachers and 24% knew five or more teachers on this basis.

A study on education and its influence on students' career choice by Arudo (2008) in Northern Nigeria, found that students believed that their certificate could greatly influence the type of career they found themselves in.



so even though they had their choice of career made already, they believed their certificate had the potential of changing their choice of career. With 300 respondents, 75% shared this view while only 25% thought that certificate could change their choice of career.

### **Empirical Review**

This section presents review of prior studies concerning the topic under study. The empirical review will fall under the three major factors influencing career choice and academic programmes which are environmental factors, institutional factors and personal characteristics. Under these factors, the review will cover parental influence, personality influence, socio-economic status, economic stability, information available on the programme, academic achievement, subject area interest and peer influence.

### **Environmental Factors that Influence Students' Selection of Career**

#### **Choice and Academic Programme**

##### **Parental influence**

Parental influence includes parents' disposition, preferences, expectations, support and encouragement, and has a range of powerful effects. Some studies report that parents' encouragement and support are the primary factors in the college choice process at the 'predisposition' and 'search' stages but are less important at the 'choice' stage (Cabrera & La Nasa, 2000; Harker et al., 2001). Stage and Hossler (1989) claim that parental expectation was the best predictor of the predisposition to attend college for their 9th grade sample. Perhaps reflecting this shift across the phases is the finding that parental influence impacts more on school leavers than age-mature students (Maxwell, Cooper, & Biggs., 2000; Harker et al., 2001).

Payne (2003) reported that parents' role was probably the most important factor in post school choices. Walck and Hensby (2003), and Kern (2000) postulates that family have a significant support in decision-making. Brooks (2004) showed that 90% of respondents claimed that they had consulted their parents about career and programme choices. The Institute for Employment Studies (1999) also showed that 73% of parents were keen for them to go to university. Boyd, Chalmers and Kumekawa (2001) also revealed that parents were the major influences on decision-making. Choy et al. (2000, p.60) argued that "for parental involvement was convincingly linked to an increased likelihood of attending college". However, parents' preference ranked very low as a factor in both Martin's (1996) and Lilly, Armitage and Thomas (2000) studies of senior school students.

Kallio (1995) examined the relative influence of factors affecting the college choice decisions of graduate students at a major research university. Through factor analysis and regression approaches, the author found several important factors that influence college choice decisions such as residency status, quality and other academic environment characteristics, work-related concerns, spouse considerations, financial aid, and the campus social environment. Zimmerman et al. (2000) has identified "push and pull" factors which operate along the students' decision-making process in the global market. Various works had been carried out, in other fields, on the factors considered in choosing a programme of study and vocation.

For instance, the work of Clutter (2010) explored parents' critical role in their children's career choices and aspirations. The work had, subsumed in it, a brief history of past career counseling techniques, which begins in the

formative years through assessing the student's personality to determine proper occupational fit. The researcher also stated that there has been a progression to the post-modernist view that bases vocational interest and aspirations on constantly changing life roles. Also included were previous empirical researches that have examined parental influence on adolescent's career choices, as well as researches that border on the effects of socioeconomic status, gender, and race. In Nigeria the factors affecting students' choice of programme include socio-economic parent, teacher, gender, environmental and employment opportunities.

Similarly, Demi, Coleman-Jensen and Synder (2010) observed that tuition, financial aid policies and students' socioeconomic status significantly influence the ability of student to determine which career to choose when applying to tertiary institutions. Students who are more economically advantaged possess "tuition elasticity close to unity" meaning that, "a one percent increase in tuition will lead to about a one percent decrease in enrollment yield. Socio-economic background of students has positive effects on students' choice of programme as students tend to take into cognizance the cost of education before embarking on a particular programme of study. Higher levels of parental income are strongly associated with young adult post-secondary school attainment, and higher levels of parental education are also related to youth college attendance (Demi, et al 2010).

Chalmers (2001) showed that mothers were the most important factor. In James' (2000) study, 80% of mothers' influence was significant compared with 72% for fathers' influence. Looker and Lowe (2001), and Brooks (2004) showed that mothers were more likely to play an active role in a child's



education but Brooks' study also suggests that fathers play a key role, indeed at times a more important role, in decision-making about post-school study, particularly when they have access to the necessary social and cultural capital to support decision-making. Parental involvement may result in a 'push' or 'pull' effect.

Reay, Davies, David, and Ball (2001) reported that students in private schools experienced congruence between familial and institutional habitudes. Consequently, parents and the school pushed them in the same direction – towards higher education. Yorke (1999) identified a negative aspect to parental involvement, finding that many students went to university as a result of parental pressure and often made wrong choices of study. Parental involvement may also vary with gender, class and ethnicity and act as an inhibitor on choices for non-traditional students (James, 1999; Payne, 2003). It is worth noting however, that Payne's study showed that students in the main minority ethnic groups were more likely than whites to stay in full time education after age 16 and that some of the stereotypes of Muslim families were inaccurate.

Gostein (2000) in a study indicated that parents influenced their children's choice of career in a number of ways which include, direct inheritance, the provision of apprenticeship and role models. Sometimes the "influence" is an order to enroll in particular courses or predetermined actions.

The first of the influences identified by Gostein (2000) is "direct inheritance". By this Gostein meant that the adolescent is brought up on the idea that the family business is his or her inheritance. When this happens, the child finds it easier and even wiser to continue the family business than to go

off on his or her own. Gostein used the findings of Gofflich and Moses (2003) as the basis of his statement that 95 percent of boys who chose farming as a career were sons of farmers (Gostein, 2000).

Secondly, he asserted that parents' influence comes through apprenticeship training". That is, a parent who is a plumber takes his child with him on careers or actually apprentices the child to a friend. This however occurs more in low socio-economic circles where the child may not have any other choice.

A third influence from parents is the "development of interest." From the time they are young parents cultivate certain career interests in their children. This is done through the play materials they provide, the encouragement or discouragement of hobbies and interest, by the activities they encourage their children to participate in and by the total experiences they provide in the family (Gostein 2000). For example, a musician mother encourages her child to take music lessons. In the U.S.A, an estimated 44% of physicians' sons take to medicine, 28% of lawyers' sons choose law (Yao, 1999). A fourth type of parental influence on the choice of careers by the youth is "role model". This, Gostein (2003) says, works well where the child identifies closely with the parent (Bell, as cited in Gostein, 2000).

Mortimer (2015) is reported to have found a confirmation of parental influence when he said that a combination of prestigious paternal role model and a close father-son relationship fostered a very effective parent's "transfer" of career values and influence on children's career choice. Gostein (2003) opined that parents of low socio-economic status were not able to influence their children's choice of careers that much. Gostein gives reasons for this.

That is: (a) they are not close to their children who are young adults nor are they very actively involved in their care, (b) their careers are less prestigious and because of the lack of career prestige there is also a lack of admiration from their children and therefore no encouragement to emulate. A study by King (1993) in Kenya, specifically linked parental behaviour to the career choice of teaching.

In King's study, 53% of the participants identified mothers as very encouraging in their choice of teaching. Additionally, mothers in the study created a desire in their children to work with individuals of diverse family backgrounds, to be creative, and to feel that their abilities were well suited for teaching. In a study by Natalie (2006) in North Africa young adults through interaction with the context of family, school and community learn about and explore careers which ultimately lead to their career choice. One consistent finding in research suggests that adolescents' own aspirations are influenced by their parent's aspirations or expectations. Parental support and encouragement are important factors that have been found to influence career choice. Children may choose what their parents desire simply to please them (Taylor, Harris, & Taylor, 2004).

According to Amoth and Oyamo (2007), studies in Kenya showed that rural students tended to seek help from parents more than urban students and that parents more than teachers played a major role in the career choice of students. That is parents insist on the choice of school and even the courses they concentrate on. This is in itself a setting off on a predetermined career. Most often this happens regardless of the child's talents, interests and desires. Where the youth have no strong objection to the choice being made for them,



they get condemned to a life's work to which they are not suited. One of the motives of parent's action is to get the child to take up the career, that the parents were always interested in but never got to do (Gostein, 2000).

Children accede to the parental wishes or order most often not only from a desire not to offend them but from not knowing what else to do with themselves (Gostein, 2000). Gregory (1998) has the opinion that sometimes the choice made by parents for their children are on the same status category or one above theirs. For example, while a parent who was a physician would encourage the child to choose the same career or one of comparable status, a skilled worker may encourage the child to follow him or urge him to seek a higher grade – managerial work. Gostein (2000) reports that an estimated 67% of all boys choose a career in either their father's career category or the next higher one.

According to Holland (1997) the influential factor in career behaviour or choice is that of parental influence. Using a national sample of 1959 in Virginia, Holland administered his Parental Attitude Research Instrument (PARI) to mothers of respondents. The findings indicated that the student personal orientations were related to some of the attitudes held by their mothers. An example was given where through parental upbringing, children took to the values of the parents and almost moved in the same direction as their parents (Osipow, 2003). Holland's approach to the influence of fathers was a bit different. Each of the fathers was asked to rank nine goals he had for his child. He also ranked his hopes for his child's eventual income. The results indicated that fathers of sons in the realistic category valued ambition in their sons and hope their income would be considerable. Peng and Jaffe (1979)

suggested that women who entered male-dominated fields such as science often came from families where mothers were working, both parents were highly educated, and success was considered critical. Mothers with four-year degrees are more likely to influence career choices than mothers without such qualifications (Smith, 2000).

Although college educated mothers influenced both traditional and non-traditional career choices, women choosing non-traditional careers indicated that their fathers had a stronger, more direct bearing on careers choices in non-traditional environments (Gates, 2002; Trauth, 2002; Dryler, 1998; Scandura & Ragins, 1993). One of the subjects interviewed in Trauth (2002) reflects on the role of her father: 'If I didn't have my father who sat down, and you know, helped me choose the subjects, then I might have chosen the wrong subjects. I might have chosen the ones that I could get good grades in or that wouldn't have led to anything (Trauth, 2002). Turner (2002) in Liberia found that 73 percent of working women indicated their fathers strongly influenced their career choice.

Osipow (2003) after considering the literature on parental influences on career choice of their children, concluded that parents' behaviour created environments which exerted a powerful influence on the personal characteristics of their offspring. He went on to state that, the consequence of the influence was the particular career environment the child selected. Gensinde (1993) in a study in Kenya wanted to know why students chose their careers. After studying 400 students in teacher training colleges and in technical colleges, he reported that 66% of students in teacher training colleges and 56% of those in technical colleges were influenced by parents

and significant others to enter the career programmes. Okeke (2000) and Aghamehi (1998) in East Africa studied the relationship between parental careers and their children's career choice. Okeke in his study found 60% of the children were willing to take their fathers' career and that 25% were willing to follow their mothers' career.

Olando (2010) used 320 respondents in Liberia to study the factors that influenced the career choice of undergraduate students. After the research, it was found that, 65% of the students chose careers because their parents wanted them to be in that career and nothing else. Family is one of the most influential contexts of socialization in childhood and adolescence (Dryler, 1998). While the impact of parental guidance is felt unequivocally in the choice of traditional and non-traditional careers, it is most strongly observed in the choice of non-traditional careers. Direct forms of parental influence, such as the degree to which students see their parents choosing IT careers or having contact with technology, are strong motivators to train for technical jobs (Breakwell., 1988; Dryler, 1998).

Family members can also motivate career choices indirectly equally persuasively. For instance, a parent may not be an IT professional but may encourage girls to pursue or actively compete in careers perceived to be "masculine". These parents may still be acting as role models of perseverance and achievement without being IT professionals.

Literature is unequivocal regarding the positive influence of parents, particularly fathers, on career choices. Siblings can have some influence on career choices. In particular, for girls, older brothers can influence the entry of girls into traditionally "masculine" careers (Bank, 1995). On the other hand,



girls who have only sisters tend to choose careers that are more traditionally “feminine”. Similar sibling influence is found for boys with male sibling (Brown, 2002).

### **Socio-economic Status**

Socio-economic status (SES) is the strongest predictor of tertiary study (Stage & Hossler, 1989; Choat, 1998; Chalmers, 2001; Looker & Lowe, 2001). A causal relationship between SES and post-school choices was established by Wagenaar (1987). Studies also report that SES effects are important at all three stages of the decision-making process (Cabrera & La Nasa, 2000). Family size and family structure composition may add to the effects of SES (Lillard & Gerner, 1999; Maani, 2000; Nguyen & Taylor, 2003). Three forms of SES are identified - parental education, parental occupation and parental income (Looker & Lowe, 2001). These produce social capital (resources available because of connections to others) and cultural capital (non-economic assets that come from high levels of education and exposure to middle- and upper-class values and attitudes). Studies report the effects for both high SES and low SES students.

Students from high status homes are more likely to pursue post-secondary education, attend university and pursue postgraduate degrees (James, 2000; Looker & Lowe, 2001). They also placed more significance on institutional rankings (Howard, 2002). Choy et al. (2000) identified low SES as a risk factor and found that 44% of high school graduates with any risk factors never entered the pipeline to college. James (1999) supports this, showing that lower SES students were under-represented in higher education. They also choose institutions on the basis of cost (Connor Dewson, Tyers,

Eccles, Regan, & Aston, 2001). Choat's (1998) study shows the effects of SES in the New Zealand context. A student from Decile 9 & 10 schools is five times as likely to go to university as someone from Deciles 1 & 2; students from Decile 6-8 are twice as likely to go to polytechnic than university; 63% of those attending private schools went on to tertiary education compared with 47% from Decile 9 & 10 schools. Maani (2000) found similar effects, the estimated probability of attending university increases significantly with parental income decile, even when keeping IQ and academic performance constant at their mean values.

In contrast the probability of attending the polytechnic decreases significantly as income decile increases. This is consistent with the effect of income and socio-economic background on the level of information available to the young person or the tastes developed for the type of training and occupations pursued. Reay et al. (2001) used the notion of habitus to explore the ways that institutions impacted on students' choices. Where there is similar view between family and institutional habit, students are likely to be channeled into higher education. The social or personal fit (James, 2000; 2001) is not comfortable so students are less likely to continue onto higher education. James' (1999) study on the effects of SES applies beyond the studies in Australia: "Overall, the findings of our first study emphasize that Australia still have a higher educational system by social class.

According to Bolles and Bolles (2011), student inherit their parents certain financial and other resources which may influence their career choices. Your family financial status determines where you live and which school you

attended. In turn, these can affect a person values, occupational expectations, opportunities, and gender role expectations.

### **Economic Stability**

Many students believe that to live a comfortable lifestyle they need to be economically stable. When these students look into a major or a career path, they seek out the higher salary jobs or they look for majors that involve the most job security (Wildman & Torres, 2002). The financial aspects that students consider include high earning potential, benefits, and opportunities for advancement (Beggs et al., 2008). Given the current economy, and American culture, many students think they need a high paying job to make it in society these days. Along with stability during their career, some students may even look ahead to retirement. Students want to make sure they are secure for the rest of their lives, and may look into careers that have benefits to help them in the long run (Wildman & Torres, 2002).

Monthly salary and other allowances have also been an important motivation for employees since the creation of the labour market, and this is a significant factor for prospective graduates who seek employment too (Tulgan & Martin, 2001). Most students while assessing their career options will prefer a career that pays well relative to the others. Even though money is not the only incentive for staying at a job (Chumba & Gachunga, 2016), a fair compensation package is a basic condition for employee satisfaction. As such some students expect to receive both a competitive base salary, and monetary benefits such as health insurance or college tuition reimbursement. Furnham, Eracleous, and Chamorro-Premuzic (2009) discussed salary as one of five hygiene factors. This means that, employees as well as prospective employees



expect to receive relatively good salaries. If this expectation is not met, these employees become dissatisfied and translate into poor/low productivity and shy away from the prospective career respectively.

As a result, for organizations to attract prospective talents who are recently graduating, they must offer an appealing compensation package to attract and maintain them. This package could be a combination of different rewards and can include tangible rewards, such as pay – base salary, and benefits; health care, retirement savings, paid vacation, and rewards that are intangible such as learning and development, and a satisfying work environment (Gleeson, & Carmichael, 2001; Jensen, 2007). Career development is the balancing of recognizing and meeting needs of the individual while at the same time responding to the outer forces and realities of life.

An individual in a career has to constantly balance his or her aspirations and how they fit into the reality of the workplace. Man's occupation determines the kind of person he becomes since, through his waking hours, his cognitions about himself, his wants and goals, and his interpersonal response traits are molded' (Kroll, 1970). Kroll (1970, p. 19) stated that much of the "informal and formal knowledge provided through our society and our environment has focused on the acquisition, retention, and utilization of information pertaining to the world". Socio-economic status is passed down from one generation to another generation, "you may not benefit by being exposed to many opportunities or on the other hand you may not have the opportunity to recognize all the career option open to you" (Hooley, 2012, p. 57). Even though your socio-economic status may have affected your

career decision so far, many career related decisions lie ahead. High aspiration and motivation to achieve will help you to reach your goals. Environment has a momentous role in the career choice students make and the position the student attains in various ways.

Besides socio-economic status, Mberia and Midigo (2018) believes that family members also play a role in the career students make. According to Mberia and Midigo (2018), additional aspects of an individual's family background can be influential in the career decision that individual makes. In a study for college students, researchers have found that parents are the most influential career role models for students. Mothers in particular seem to exert greater influence during their children's high school years and fathers seem influential in college aged children's decision making.

According to Okwulehie (2018), parental influence and healthy environment are essential for evolving abilities to heights close to capacity heights and if teenagers are raised in a harmonious home where parents live in harmony and are caring and helpful to their children, a child is therefore destined to take orders from his parents. Hence their career choice aspiration is influenced by their parent's occupational status.

### **Family Experiences of Tertiary Education**

When a family has some experience of tertiary education, children are more likely to consider post-school options and are better able to navigate the complex application and enrolment procedures. Parents' own education is an important factor in this process, although friends and other family members, who have current or recent higher education experience, can become 'positive influencers', particularly for low SES students (Connor Dewson, Tyers,

Eccles, Regan, & Aston, 2001). Christie et al. (2004) found that complex social networks advise people on post-school study. Where these networks are repositories of experience of tertiary institutions and courses, young people have access to reliable information and tend to be more confident about their choices. Where people do not have access to such information networks “they may be deterred because they do not have help or support in negotiating this very daunting and complex body of information (Connor Dewson, Tyers, Eccles, Regan, & Aston, 2001).

Parental level of education is especially influential at the predisposition stage, being positively associated with plans for university study (Stage & Hossler, 1989; Cabrera & La Nasa, 2000; Payne, 2003). In a study in New Zealand, Chalmers (2001) found that children from professional, managerial and highly educated parental backgrounds tended to assume they would study at university. Jackson (1986) reported that both father’s education and mother’s education were critical variables in college choice. Nguyen and Taylor (2003) showed that the probability of enrolling in a four-year college increased as parental qualifications improved. In contrast, parents who have little or no tertiary education are less likely to encourage their children to continue. They see higher education as not for the likes of us and may even ‘pull’ against schools’ efforts to persuade their children to stay on (Reay et al., 2001).

Parents with low academic qualification tend to encourage children into the labour market (Nguyen & Taylor, 2003). Choy et al. (2000) study also showed that parents’ education mattered. Choy et al. (2000) argued that students whose parents had no college education were only half as likely to



aspire to a bachelor degree at 10th Grade and only one third as likely to enroll in a four-year college. They explained that such parents were less likely to participate in planning activities that led to college enrolment. Connell (2004) found that even when working class parents were supportive of education and aware of the benefits for their children, their own lack of experience with and knowledge of post-school academic and training pathways was a key factor. McCarthy, (2016) found a similar effect with indigenous parents with no post-school education.

While wishing their children well, they were frustrated that they were insufficiently informed about options for their children. These findings have important consequences for schools. “The more complex the system gets, the more ‘choices’ are inserted, the more difficult it is for these working-class parents to understand and move competently around the education system. The implication is that working class families in the future are likely to depend more on the schools to get everything right for their children” (Connell, 2004, p.238). While Connell wrote about working class parents these comments apply to all families where parents lack experience of tertiary education. Schools have a major role in providing appropriate information on post-school options for these students.

### **Peer influences**

Peer influence is seen to be important on several other educational outcomes, including enrollment in college (Fletcher 2012), choice of college major (Lyle 2007), and whether to join a fraternity (Sacerdote 2001). Research examining the importance of peer influences has lagged behind other major educational decisions, including the choice of which college to attend. This

omission is unfortunate due to the increasing importance of these choices for life outcome. For example, Hoxby (2004) forcibly argued that the most important college decision has progressed from whether to attend college to which college to attend among the many alternatives. Data limitations and empirical difficulties in estimating the importance of peer influences on individual choices are likely two principal reasons for the limited research in this area.

Alika (2010) studied the relationship between peer group and parent influence as correlates of career choice in humanities among secondary school students in Nigeria. Survey method was adopted for the study. One hundred Senior Secondary School two (SSS2) students in Oredo and Egor local government areas of Edo State. Three research instruments, namely: the student's occupational clusters preference scale (OCPS), peer pressure assessment scale (PPAS) and the parental influence assessment inventory (PIAI) were employed. The items on the instruments were a modified to a 4-point Likert scale. Using the Pearson Product Moment Correlation Coefficient (PPMCC), a relationship was established between the independent variables (parental and peer group influence) and the dependent variable (career choice).

The result showed that there was no significant relationship between parental and peer group influence on career choice in humanities among secondary school students. As regards career development, it recommended that counselors should work directly with parents and peers, especially with a view to enhancing the positive aspects which may eventually improve the career development prospects of the future workers. The recommendation is seemingly in harmony with the study of Akyina, et al (2014) which stated that

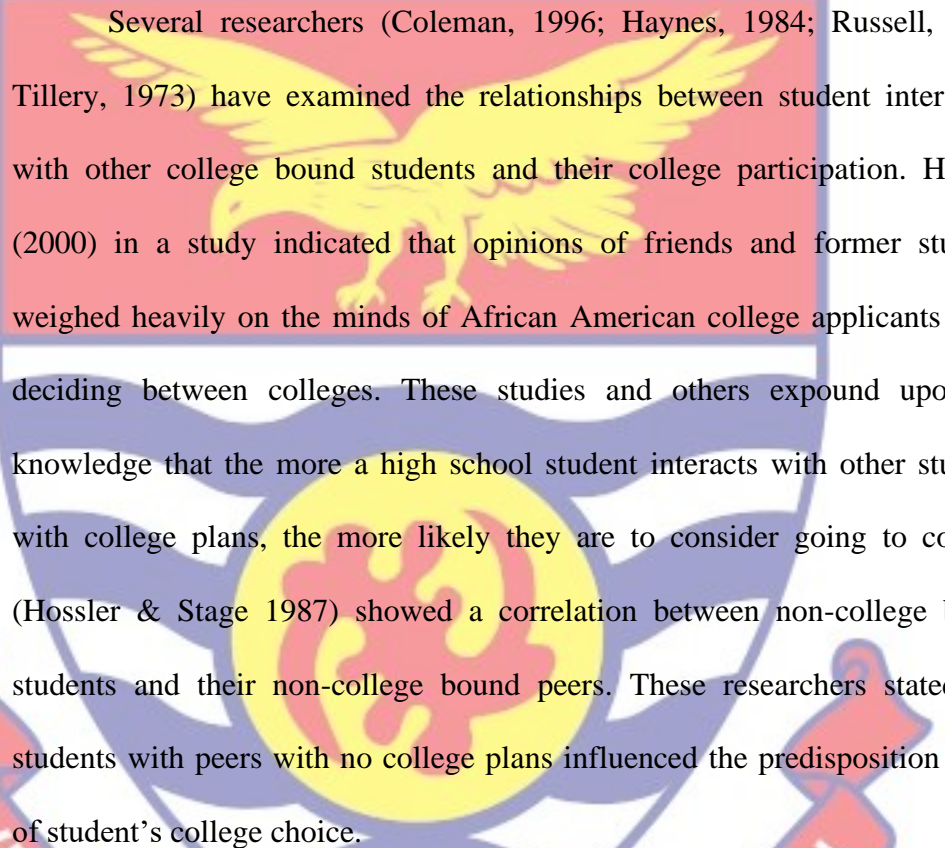
school counselors should reinforce students' rational programme choice behaviour by intensifying counseling in schools so that students will continue to make rational choices of programmes in school. Lyle (2007) examined whether "role model effects" were important in predicting choice of college major at West Point.

In particular, the author estimated whether a freshman's eventual choice of major is associated with the proportion of upper class students in his/her randomly assigned peer group (i.e., company). He found suggestive evidence of a relationship for freshman who major in engineering, social sciences, and natural sciences (although only engineering was statistically significant) but negative associations in other majors. In contrast, Sacerdote (2001) found no evidence that randomly assigned roommates at Dartmouth College influenced the choice of college major. Although the evidence showed the clear influence of family, it would be expected that peers also influence institutional choice. However, research is somewhat inconsistent in this arena. Kealy and Rockel (1987) showed that "the student's peer group of high school students was highly influential across all dimensions of perceived college quality (Kealy & Rockel, 1987).

Hossler, Braxton and Coopersmith (1989) indicated just the opposite and stated that peers had no reported effects on influencing institutional choice. Perhaps the best way to interpret these two findings is to say that peers have influence on a student's perception of college quality, but do not go as far as having a direct influence on institutional choice. In other words, peers serve as an influence to one of the many factors that influence college choice. Perhaps the most contrary finding to the influence of peers came from Kern's



(2000) study on college choice influences. She noted that “participants indicated that going to college because of friends were going was not a motivating factor (77.6% responded disagree or disagree strongly to the statement, ‘I am attending college because my friends are going to college’) (Kern, 2000).



Several researchers (Coleman, 1996; Haynes, 1984; Russell, 1980; Tillery, 1973) have examined the relationships between student interaction with other college bound students and their college participation. Hayden (2000) in a study indicated that opinions of friends and former students weighed heavily on the minds of African American college applicants when deciding between colleges. These studies and others expound upon the knowledge that the more a high school student interacts with other students with college plans, the more likely they are to consider going to college. (Hossler & Stage 1987) showed a correlation between non-college bound students and their non-college bound peers. These researchers stated that students with peers with no college plans influenced the predisposition phase of student’s college choice.

While parental encouragement still is considered the greatest influence on college attainment, the effect of student’s peers does add an additional dynamic to the overall college choice process for high school students. Friends are important sources of information consulted by students during the search and choice phases of the college choice process, as research has shown. McDonough’s (1997) review of previous studies (Hossler, Braxton, & Coopersmith, 1989; Manski & Wise, 1983; Zemsky & Oedel, 1983) identified

peers and friends among the factors “consistently influential” in the search and choice phases of students’ college choice process.

Rowe (2002), in her limited review of literature (Mathay, 1989), found friends and peers to be influential in the college choice process (pp. 46-48). Using data from the National Educational Longitudinal Study of 1988 (NELS), which started with surveying a nationally representative sample of 1988 eighth graders, with follow-up surveys in 1990, 1992, and 1994, research by Choy, Horn, Nuñez and Chen (2000) suggest that “parents, peers, and school personnel can all contribute to increasing the college enrollment rates of students at risk of dropping out of high school and of students whose parents had no college experience” (pp. 46, 51).

Their study found that peer group effects were especially strong. In fact, having friends with college plans was the strongest predictor of college enrollment. If most or all of their friends had college plans, the odds of moderate- to high-risk students enrolling in Colleges were four times higher than if none of their friends planned to go to college. (Choy et al., 2000, p. 53).

### **Institutional Factors that Influence Students’ Selection of Career Choice and Academic Programme**

#### **Availability of Information**

Mass information campaigns like advertising through newspapers, television, radio and the internet are perhaps less helpful than institutions would wish. Brennan (2001) suggests that students do not use promotional materials to a large extent when making decisions. Maxwell et al. (2000) concurs, claiming that newspapers, radio and television are not influential.

James et al. (1999) suggest that commercial information is used by less than one-third of applicants Connor Tyers, Eccles, Regan, and Aston (2001) note that, while information disseminated by institutions is plentiful, their respondents saw it as too general and overly complex.

Christie et al. (2004) picks up on the Martinez and Munday (1998) and Yorke (1999) critiques by suggesting that the most effective information recognizes that decisions are made in complex social networks that operate using interpersonal communication. They found that young people, who do not have ready access to such information networks, may be deterred because they cannot access important information. Brennan (2001) also argues that the most important source of information is interpersonal. Boyd et al. (2001), writing from a New Zealand perspective, found that students preferred personal to impersonal information. Indeed, they found that personal interest by an informant was a primary motivator for making choices. Parents, families, friends, teachers, career counsellors and tertiary staff are all involved in interpersonal information networks (Boyd & MacDowall, 2003; Brooks, 2004).

In their New Zealand study, Boyd and MacDowall (2003) showed that all members of interpersonal information networks have significant influences on decisions. At the senior secondary school level school teachers and career counsellors have the most influence, but parents are also influencers, as are tertiary educators who engage with students rather than merely trying to recruit them. In a synthesis of three major studies of career guidance, Watts and Sultana (2004) observed that many of the 36 countries studied attempts were made to provide lifelong career guidance using a variety of information



networks. The synthesis suggests that institutions that engaged with interpersonal information networks were more successful than those that didn't. In-school taster courses, two-way visits and open days, although problematic according to James (2001), enabled decision-makers an opportunity to see how well they would fit into an institution.

Peers of decision-makers are usually recognized as members of a complex web of interpersonal information networks (Brennan, 2001; Chalmers, 2001; Boyd & MacDowall, 2003; Christie et al., 2004). It is perhaps surprising that they do not feature more prominently as information sources in the research. Brennan (2001) for example, found that close friends only ranked halfway in a list of 5 personal influences. Family and career advisors ranked well above them. While Boyd and MacDowall (2003) found people to be generally very important in the decision-making process, only 35 per cent of their sample thought that peers were important compared to 73 per cent who thought teachers were important and 55 per cent who thought family was important. Martin (1996) found that friends ranked third out of 9 information influences.

Whitley and Neil (1998) distinguished 'in school' and 'out of school' information flows. They suggested that 'in-school' information provided by teachers and career guidance people was more important, but that peers played a significant role in providing 'out-of-school' information, particularly among low socioeconomic students. Both Whitley and Neil (1998) and Chalmers (2001) found that girls were more likely to seek information from friends than boys.

## **Institutional Reputation**

The reputation of an institution may influence students' choices. Reputation, however, is understood in different ways: academic reputation, prestige, desirability and ranking in league tables. Findings on reputation were somewhat mixed. In a large USA study Howard (2002) investigated the ways students used institutional rankings in their decision-making and found that 56.7% considered ranking to be a factor. In Australia, studies by Soutar and Turner (2002), Brennan (2001), and Martin (1996) identified reputation as a factor. Some studies reported that academic reputation was important to different groups of students: those that applied to research-led institutions (James et al., 1999); high-achieving students (Keller & McKeown, 1984); and age-mature students attending private colleges (Tumblin, 2002).

Jackson (1986) found that 'institution's prestige' was a non-critical factor; James (2001) found that 'research track record and international standing' are not of great interest to students; and Lilly et al. (2000) that students are not particularly interested in league table positions.

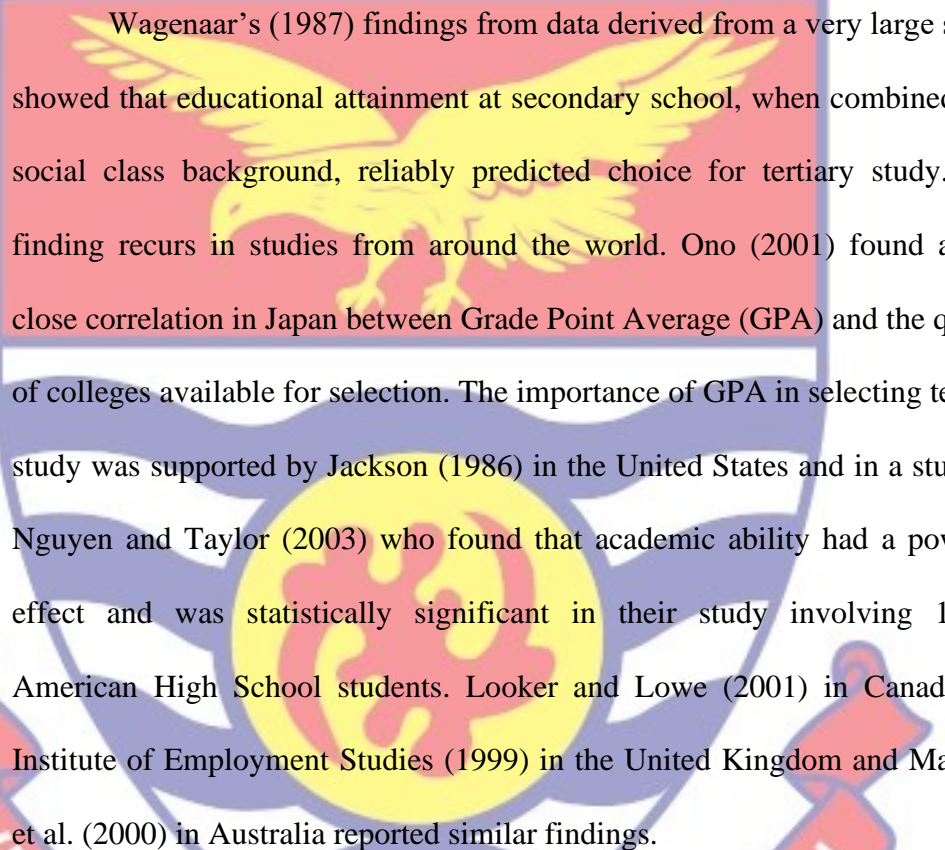
## **Personal Characteristics that Influence Students' Selection of Career**

### **Choice and Academic Programme**

#### **Academic achievement**

There are many critical factors influencing peoples' decisions about their post-school lives (Jackson, 1986; Cabrera & La Nasa, 2000; Looker & Lowe, 2001). One recurring factor is academic aptitude and achievement. Aptitude and achievement play an important role at all stages of the predisposition, search, choice model (Stage & Hossler, 1989; Cabrera & La Nasa, 2000; Brennan, 2001; Harker et al., 2001). Stage and Hossler suggest

that within the predisposition phase, student school achievement is positively associated with plans for university study. Without this, tertiary education is rejected early as an option. When the time comes to consider options at secondary school and to actually choose a post-school career, academic aptitude is a critical factor.



Wagenaar's (1987) findings from data derived from a very large study' showed that educational attainment at secondary school, when combined with social class background, reliably predicted choice for tertiary study. This finding recurs in studies from around the world. Ono (2001) found a very close correlation in Japan between Grade Point Average (GPA) and the quality of colleges available for selection. The importance of GPA in selecting tertiary study was supported by Jackson (1986) in the United States and in a study by Nguyen and Taylor (2003) who found that academic ability had a powerful effect and was statistically significant in their study involving 10,000 American High School students. Looker and Lowe (2001) in Canada, the Institute of Employment Studies (1999) in the United Kingdom and Maxwell et al. (2000) in Australia reported similar findings.

Two Australian studies support these findings by offering slightly different perspectives. James (2000) found that affirmative answers to questions about attainability factors, such as confidence that the requirements of a course could be met and they could gain entry into their chosen institution, persuaded students to have a go. McInnis et al. (2000), in their studies, found that respondents had clearer and more confident academic goals than students who scored less well. Maani (2000), in a New Zealand study, found that the choice to enroll in tertiary education was mainly influenced by



academic performance. The study reported that passing the School Certificate examination<sup>1</sup> increased the probability of attendance at the university by the age 18 by 15.6 percent.

St. John (1994) found that inadequate academic preparation creates barriers for nontraditional groups. This finding has given rise to a number of suggestions for improving academic performance (Perna, 2000). In their major longitudinal study, Choy et al. (2000) developed the metaphor of a pipeline to picture the process by which people decided to pursue tertiary education. They found that students with any risk factors tended not to enter the pipeline. Their solution: help students develop college aspirations early, encourage them to follow a rigorous academic curriculum, and support them through the application and enrolment process (Choy et al., 2000).

#### **Subject Area of Interest**

There is strong evidence, particularly from the Australian literature, that interest in a subject area strongly influences people to choose one institution or type of tertiary education over another. This particular subject area choice is often a surrogate for career aspirations (James et al., 1999; Maxwell et al., 2000; Cabrera & La Nasa, 2000; Chalmers, 2001). In major surveys, James and his colleagues found that students focused primarily on fields of study when choosing their tertiary education (James et al., 1999; James, 2000; James, 2001). In another study tracing retention patterns between 1994 and 1999, McInnis et al. (2000) found that 94 percent and 96 percent of respondents said they came to university because they wanted to study in a field that really interested them.

Other Australian researchers (Le Claire, 1988; Martin, 1996) reported that a chosen field of study was a prime reason for choosing tertiary education. While placing second in a list of factors, American researchers confirmed the importance of field of study as a key factor in decision-making (Keller & McKeown, 1984; Kern, 2000). A New Zealand study that investigated into technology education not surprisingly, perhaps, found the key decision factors to be 'ability in' and 'interest in' a technology subject (Harris Management, 2003). Another New Zealand study, by Boyd et al. (2001), also found that personal interest was a primary motivator for making choices. Confirmation about the importance of the field of study, but from a different perspective, comes from two retention studies conducted in the United Kingdom (Yorke, 1999; Christie et al., 2004).

Both found that students were withdrawing from their studies because they had chosen the wrong courses. Worth noting here is James' (2001) finding that the field of study preferences were made by 56 per cent of applicants in the year of decision while 43 per cent made their choices in years prior to that. It is important to recognize that the decision-making process is complex and other factors also influence choice, Lilly et al. (2000) researched into five clusters of factors: learning support, input from advisors, institutional performance and institutional offerings, including matters connected with subject choice. Learning support and institutional performance ranked higher for their sample of students than availability of courses in a preferred subject area. Marquez (1998) found in her sample of Latino students, that distance from home and financial factors were most important.

Tumblin (2002) found that convenience factors such as timing of classes rated above academic factors such as academic reputation. Jackson (1982) found costs, financial aid, admission requirements of institutions and student SAT scores as critical variables in students' choice whereas subject area interests did not even appear as a noncritical variable. Indeed, as James (2000b), Brennan (2001) and Harker et al. (2001) point out, students may not have a choice if they did not meet the entry standards of an institution. The decision-making process is never straight forward as entry to university has been described as a courtship in which both parties are making decisions (James, 2000).

### **Personality Influence**

Studies have shown that students will choose a major that they think will fit their personality type (Mihyeon, 2009). The confidence that a student has can determine how far that student will go with his or her education. Students who believe in themselves have more confidence and are more likely to go for what they want instead of settling for something that is comfortable. The personality of students can also play a role in choosing a programme (Mihyeon, 2009). According to studies, students who have an investigative personality are more likely to major in the science field. Students with an artistic personality are more likely to major in arts and in interdisciplinary fields. Students who are very social people are more likely to major in the social sciences (Porter & Umbach, 2006).

Programme preference, from a cognitive-behavioural perspective continues to receive a great deal of attention in psycho-educational research. Most research show that there is a correlation between personality and interest



when it comes to career preference. Holland as cited in Walsh, et al. (1992) categorized personality types into 6 groups; Realistic, Investigative, Artistic, Social, Enterprising and Conventional. Each individual is categorized under each of these groups hence has different interests and different influence relating to differences in career preference. However, a person can have two traits which overlap.

### **Conceptual Framework**

Figure 1 explains the whole idea behind the study. It deals with the various factors used in the study that is environmental, institutional factors and personal characteristics as influential factors in career and academic programmes choices made by students. The various factors have under them the various elements that make up the factors per this study. And finally, the belief that these factors would lead students to the selection of careers and academic programmes in the public tertiary institutions.

From Figure 1, it is seen that environmental factors which include parental influence, socioeconomic status, economic stability, family experience of tertiary education and peer influence have connection with students' career choice and academic programmes choice in public tertiary institutions. Institutional factors such as information availability and institutional reputation also have connection with students' career and academic programmes choice in public tertiary institutions. Moreover, personal characteristics such as academic achievements, subject area of interest and personality also have connection with students career and academic programme in public tertiary institution.

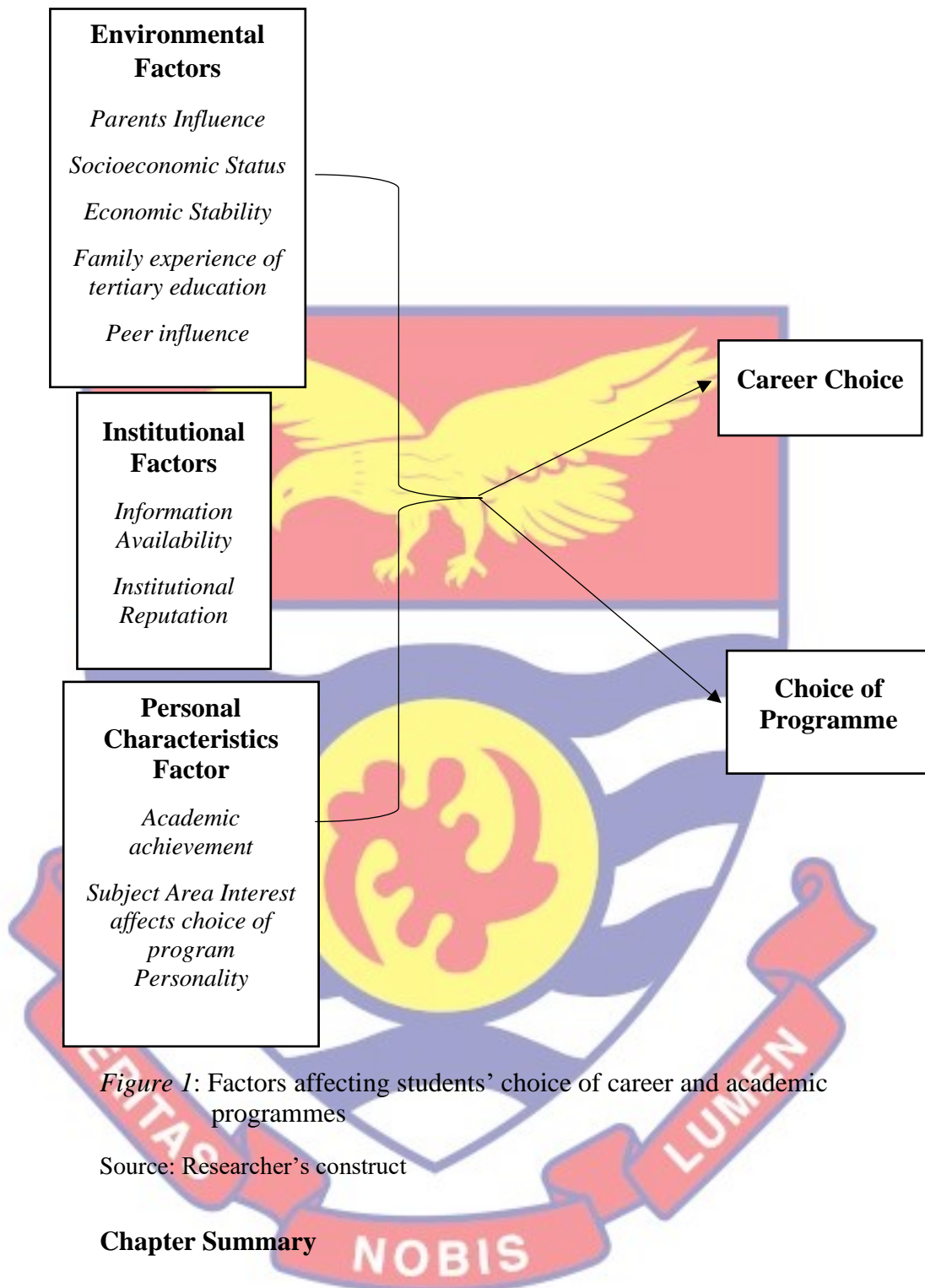


Figure 1: Factors affecting students' choice of career and academic programmes

Source: Researcher's construct

### Chapter Summary

The review was done on concept of career and programme choice of the study in the tertiary institutions. Key theories underpinning the concepts were reviewed. The theories included social cognitive theory, Martin Ford Motivational theory, the theory of planned behaviour and operant condition theory. The empirical review examined evidence from related research works

by focusing on the research method and findings. Based on the aforementioned review, a conceptual framework was developed for the study.





## CHAPTER THREE

### RESEARCH METHODS

#### Introduction

This section presents the various approaches that were employed in the conduct of the study. Specifically, the section explains the research design, population, sample and sampling procedure. Again, the section presents the research instrument, data analysis and the ethical protocols that were observed in the conduct of the study.

#### Research Design

Research design is a plan or blueprint which directs researchers on how to conduct a study (Creswell, 1994). Taking into account the type of variables involved in the study, the descriptive survey research design was used. Descriptive survey research design involves collecting data in order to test hypothesis or answer research questions concerning the current status of the subject of study (Creswell, 1994). According to McKenney and Reeves (2018), descriptive survey research design is a research design that seeks to find factors associated with certain occurrences, outcomes, condition or types of behaviour.

Descriptive survey design is versatile and practical to a researcher especially in identifying present needs (Tobi & Kampen, 2018). Tobi and Kampen (2018) noted that descriptive research is basic for all types of research in assessing a situation as a prerequisite for conclusion and generalization. It is a scientific tool where relationships between variables are being determined and follow up questions can be asked and items that are not clear can be explained, and since the population was so large, it enables the

researcher make generalizations based on the representative sample chosen. Descriptive survey research design is not only objective but also observes, describes and documents an aspect of a situation as it occurs naturally. The descriptive survey design makes use of randomization so that errors may be estimated when population characteristics are inferred from observation of samples (Boaz, Hanney, Borst, O'Shea & Kok, 2018).

The design was seen as appropriate for the study because, the nature of the topic requires that data is collected through self-report measures and large amounts of data can be collected within a short period of time. This design was to collect data by asking respondents questions about guidance and counselling services in the senior high schools. The main difficulty with the design however was demand characteristics, as respondents tried to give responses in ways that reflect their idea of what responses the researcher wants from them. Items on the questionnaire was well written to avoid this challenge. Also, respondents were encouraged to provide honest responses to the various items on the questionnaire. Despite the inherent challenges, it was deemed the most appropriate design for this study. This study was descriptive in nature because it was carried out to investigate the factors that influence students' choice of programme of study with particular focus on senior high school students in Ashanti Mampong Municipality. It simply specified the nature of the given phenomena with a description of the situation using a specified population.

## Population

Population in research is defined as the group of interest to the researcher (Schmidt & Rattenbury, 2018). It also describes the group over which the researcher would like the results of the study to be generalized. Etikan and Bala (2017) defined study population as that which reflects the entire aggregate of cases that meet a designated set of criteria. There are four (4) public Senior High Schools in the Ashanti Mampong Municipality. The study however targeted all the students in the four SHS in the Municipality as its target population. Records from the Mampong Municipal Education Directorate showed that the entire SHS students' population in the Municipality was 8,215 students.

Table 1: *Target Population*

S/N	Name of Schools	Number of Students
1	St. Monica's SHS	2,125
2	St. Joseph SHS	1,954
3	Amaniampong SHS	2,456
4	Kofiase SHS	1,680
Total		8,215

Source: Ashanti Mampong Municipality GES, (2019)

The accessible population for the study consisted of the third-year students in the four public senior high schools in the Ashanti Mampong Municipality totaling 2,642. The choice for this year group was because the third-year students have stayed longer at the school and thus, have gained



some level of experience at the school and also preparing for their future vocations. The accessible population is presented in Table 2 below

Table 2: *Accessible Population*

S/N	Name of Schools	Number of Students	Male	Female
1	St. Monica's SHS	724	-	724
2	St. Joseph SHS	684	461	323
3	Amaniampong SHS	768	405	363
4	Kofiase SHS	466	265	201
Total		2,642	1,131	1,611

Source: Ashanti Mampong Municipality GES, (2019)

### Sampling Procedures

Osuala (2005) defined a sample as a group of people drawn from a larger population. With the accessible population of 2,642 third year students drawn from the four public senior high schools in the Ashanti Mampong Municipality the recommended sample size was 336 according to Krejcie and Morgan (1970) sample size determination table for descriptive research. A multistage sampling procedures were used in the sampling process.

Purposive sampling procedure was used in selecting the schools for the study. Purposively sampling procedure was used because the researcher wanted to choose subjects that are relevant to the research topic. There are four (4) public Senior High Schools in the Ashanti Mampong Municipality. Purposively, the researcher selected all the schools that were within the centre of the Municipality. Hence four schools were selected in the process.

However, proportional sampling procedure was used to obtain the total number of students to be selected from each of the four senior high schools in the Ashanti Mampong Municipality. The proportional sampling procedure was used because the researcher wanted to ensure a fair representation of the various schools in terms of their class size. Also, in order to ensure a representation of the various gender groupings it was imperative to use proportional sampling. Also, in order to ensure fairness in gender representation there was the need to use proportional sampling procedures. The total population of each school was divided by the total population of the four sampled schools which were multiplied by the sample size of 336. Therefore, 93 out of 724 students, 87 out of 684 students, 97 out of 768 and 59 out of 466 students were sampled to represent each of the four schools (See Table 1)

After the proportional sampling procedure have been used to identify the total number of students to be selected from each of the four senior high schools in the Ashanti Mampong Municipality, the simple random sampling procedure was then used to select the students in the various senior high schools for the study. The simple random sampling was considered most appropriate because it gives each element in the population an equal probability of getting into the sample; and all choices are independent of one another (Kothari, 2004). It also gives each possible sample combination an equal probability of being chosen (Kothari, 2004). In the simple random sampling, the lottery technique was used in selecting the students. The names of all the students in the various schools were coded on pieces of paper. The coded pieces of paper for each student were folded and placed in a bowl. The researcher shook the bowl and

picked the folded paper one after the other until the number needed was arrived at. The sample distribution is illustrated in Table 3 below

Table 3: *The Sample Size for selected Public Senior High schools in Mampong Municipality*

Name of Schools	Population	Sample Size	Male (%)	Female (%)
St. Monica's SHS	724	93	-	93
St. Joseph SHS	684	87	52(60)	35(40)
Amaniampong SHS	768	97	68(70)	29(30)
Kofiase SHS	466	59	41(70)	18(30)
Total	2,642	336	161	175

Source: Ashanti Mampong Municipality GES, (2019)

#### Data Collection Instrument

The main instrument used for the data collection was questionnaire. Questionnaire is very strong in eliciting information because of the relative ease in responding to them and dealing with the data which are often collected from relatively large samples. Educational Career Questionnaire (ECQ) by Pisa (2018) was adapted and used to assess students' career choice and academic programmes. The original scale had 77 items. Institutional factors as a component in the scale were adapted by the researcher and used in the study. This section was adapted because the items reflected the objectives of the study. The Institutional factors had 9 items of the researcher used in the study. The reliability co-efficient for Educational Career Questionnaire was 0.85 (Pisa, 2018). The questionnaire was structured along Likert Scale Format. In the Likert Type Scale, the respondents were asked to respond to each item on



four degrees of agreement or disagreement. The score point ranged from 1-4 and are Strongly Disagree-1, Disagree-2, Agree-3, and Strongly Agree-4.

Career choice questionnaire by Eremie and Ibifari (2018) was also adapted for the study. The original instrument had 15 items which measured both personal characteristics and environmental factors. For the purpose of this study, 14 items were developed for environmental factors and 10 items were also developed for student characteristics. The reliability co-efficient for career choice questionnaire was 0.725 (Eremie & Ibifari, 2018). The questionnaire was structured along Likert Scale Format. In the Likert Type Scale, the respondents were asked to respond to each item on four degrees of agreement or disagreement. The score point ranged from 1-4 and are Strongly Disagree-1, Disagree-2, Agree-3, and Strongly Agree-4.

### **Pilot Testing**

Before the final use of the questionnaire, a confirmatory factor analysis was conducted using a sample of 50 third year students from Nsutaman Catholic Senior High School in Sekyere Central District. This was done to enhance the validity and reliability of items on the questionnaire before a final data collection. According to Cohen, Manion and Morisson (2007) using 10% of the sample size for pre-testing an instrument is laudable. Nsutaman Catholic senior high school was chosen because they have similar characteristics with the population under study. The pre-testing helped in checking appropriate wording, items which yield small number of responses. At the end of the exercise, it became necessary to refine some of the items and also add to the list of items. The pre-testing was to help update the instrument

as well as give clues as to how long the respondents in the main study will require to finish attending to all the items in the questionnaire.

### **Reliability of the Instruments**

To determine the reliability of the instrument, the questionnaire was subjected to a trial test outside the study area. The instrument was administered to 50 senior high school students at the Nsutaman Catholic senior high school in Ashanti Mampong. The Cronbach's Alpha method of determining reliability co-efficient was used to determine the internal consistency of the instrument. Reliability co-efficient for the the sub dimensions of Career Choice Questionnaire include environmental factors .709, institutional factors .791 and personal characteristics factors .828 while the overall career choice questionnaire yielded was .776. According to Roland and Idsoe (2001), this score is regarded as significant for a research purpose.

### **Validation of the Instrument**

The adopted scales were finally validated to determine whether the items on the questionnaire portray the intended meanings by the original researchers in Ghanaian context. Items with factor loadings below .30 were to be discarded. Table 4 presents the results.

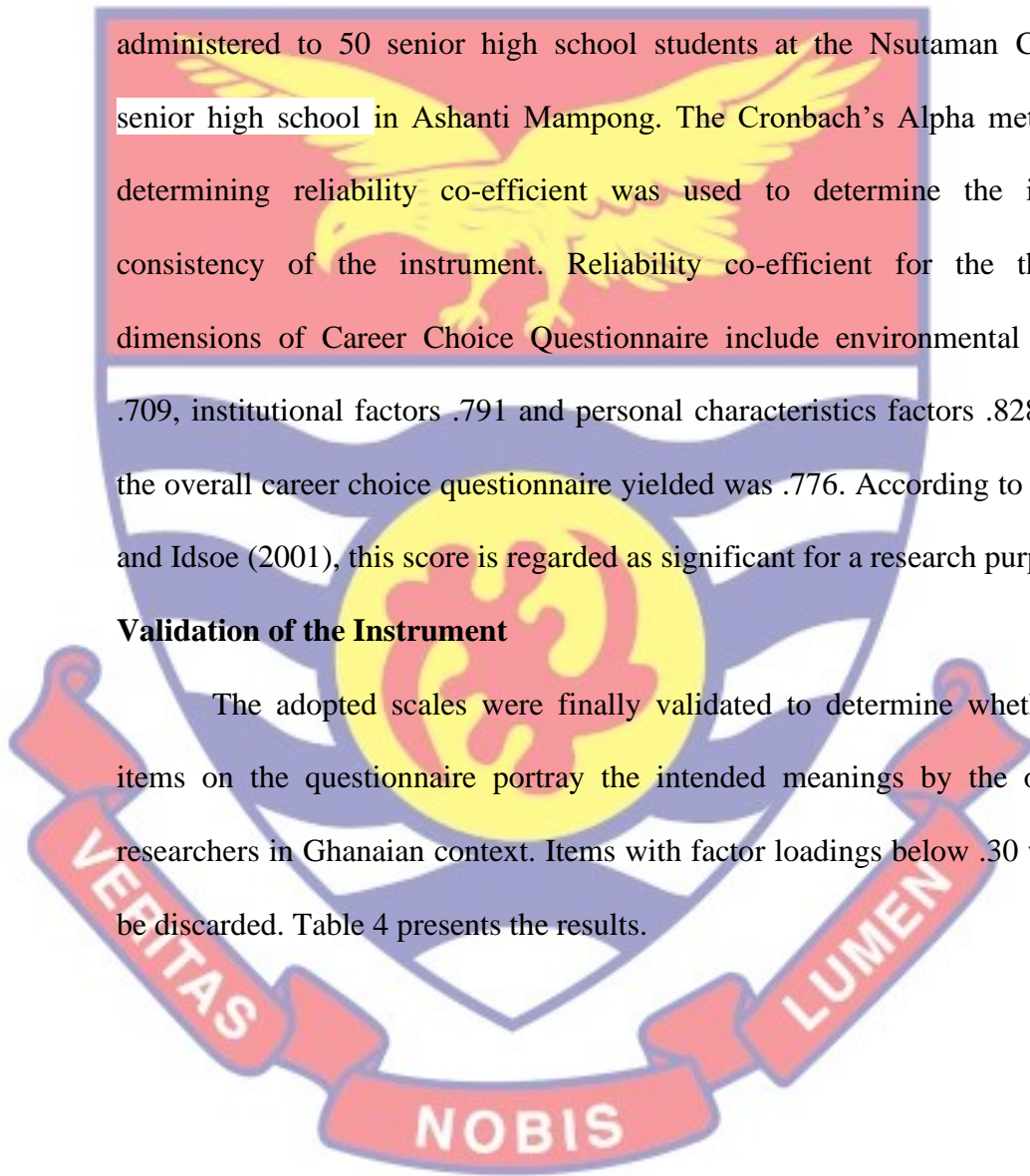


Table 4: *Loadings, Reliability, and Average Variance Extracted*

Construct	Items	Factor load	Sig.	Reliability (α)	Average Variance Extracted (AVE)
Environmental factors	q10	.710	.000	.709	.501
	q11	.628	.000		
	q12	.690	.000		
	q13	.773	.004		
	q14	.822	.000		
	q15	.671	.000		
	q16	.635	.000		
	q17	.734	.000		
	q18	.618	.000		
	q19	.594	.000		
	q20	.498	.000		
	q21	.673	.000		
	q22	.599	.000		
q23	.746	.000			
Institutional factors	q1	.621	.000	.791	.521
	q2	.723	.000		
	q3	.564	.002		
	q4	.740	.000		
	q5	.843	.000		
	q6	.664	.000		
	q7	.742	.000		
	q8	.761	.000		
	q9	.572	.000		
Personal characteristics Factors	q24	.527	.000	.828	.547
	q25	.832	.000		
	q26	.706	.000		
	q27	.815	.000		
	q28	.691	.000		
	q29	.731	.000		
	q30	.613	.000		
	q31	.511	.000		
	q32	.712	.000		
	q33	.601	.003		

Source: Field survey (2019); q1 – q33= Questionnaire items

A confirmatory factor analysis using AMOS software was performed to determine which items loaded onto the various dimensions of the scale. From Table 4, the factor loadings for all the items on the various dimension ranged from .50 to .84. These loadings indicate that the items reflecting the various dimensions as recommended by Hair, Hult, Ringle, and Sarstedt,



(2014), as well as Pallant (2020). These authors recommend a minimum factor loading of .30 as a good indicator. Based on this, all the 33 items on the various scales can be considered as measuring students' perception regarding the factors that influence their choice of career and academic programmes. In addition, the reliability coefficients of the various dimensions were assessed.

The Cronbach's alpha coefficients ranged from .71 to .83. According to Pallant, a reliability coefficient of .70 or above is appropriate, hence the coefficients obtained for this instrument were within the accepted range.

Construct validity was determined by checking for both discriminant and convergent validity. In checking for convergent validity, average variance extracted (AVE) were considered for all the three dimensions of the factors that influence students' career choice and academic programmes. An AVE value of 0.50 or higher indicates that, on average, the construct explains more than half of the variance of its indicators. Conversely, an AVE of less than 0.50 indicates that, on average, more error remains in the items than the variance explained by the construct. The AVEs in Table 4 were all above .50, which implied that the instrument did not lack convergent validity (Hair, Ringle, & Sarstedt, 2011). In determining discriminant validity, the Heterotrait-Monotrait (HTMT) Ratio of Correlations was used.

Table 5: *Heterotrait-Monotrait Ratio of Correlations*

	1	2	3
1. Institutional factors			
2. Environmental factors	.367		
3. Personal characteristics	.574	.473	

Source: Field survey (2019)

In using the Heterotrait-monotrait ratio of correlations (HTMT), if the HTMT value is greater than 0.90, then there is a problem of discriminant

validity (Gold, Malhotra, & Segars, 2001). In the case of this instrument, all the HTMT values for all the dimensions of the factors that influence students' career choice and academic programmes were below .95, hence discriminant validity was achieved (see Table 5). It can, therefore, be concluded that discriminant validity was achieved. Hence all the 33 items were retained for the final data collection.

### **Data Collection Procedure**

An ethical clearance from the Institutional Review Board was sent to the Municipal Director of Education, Mampong Ashanti to obtain permission to conduct the study in the schools. Afterwards, an introductory letter was collected from the Department of Guidance and Counselling to the Head teachers of the selected Senior High Schools in the Municipality for approval before the data collection exercise. During such visit, the purpose of the study was explained to the heads and permission was sought from them for the collection of data in the schools.

One key issue addressed during these familiarization visits was to put before the school authorities a proposed data collection schedule. This was done in order to allow for their inputs as to whether those dates earmarked for the data collection in their schools were appropriate and feasible. The questionnaire was administered to the students at the various schools and collected on the same day. Two weeks was used in gathering the data. On the days of the data collection, the students were introduced to the questionnaire about the purpose of the study and how to answer the questionnaire. They were therefore cautioned to answer the questions on the questionnaire as honestly as they could. They were also informed to read each statement and

make sure they understood it before responding to them. They were assured of anonymity and confidentiality of their participation in the study. The questionnaire was administered personally to the selected students in the Senior High schools with the dates agreed upon with the school authorities.

### **Ethical Consideration**

An ethical approval was sought from the Institutional Review Board of the University of Cape Coast. The approval from the Faculty Ethics Committee enabled the researcher to follow the universities laid down principles regarding research ethics.

Another ethical issue that was considered in this study was the consent of the participants. The consent of the participants was sought first. The researcher explained to the participants the aims, nature, duration and the possible consequences of the research. The researcher again informed the participants how the results of the study would be disseminated.

Again, the researcher ensured as far as possible that the research was not detrimental to physical, sociological and psychological wellbeing of the participants. The researcher tried to establish good relationship with the participants through mutual respect and trust.

### **Data Processing and Analysis**

The data gathered was checked one after the other to ensure its completeness. The questionnaire were then numbered from one to the last number. The data was coded and entered into the Statistical Product for Service Solution (SPSS version 23) computer software. The data was screened for entry errors and outliers. Inferential analysis was done using a confidence interval of 95% and an alpha level of .05. For inferential analysis, the



researcher checked for the normality assumptions together with other significant assumptions depending on the type of statistical tool that was used.

In testing for the normality, multiple indicators were used since only one test cannot be relied on. The normal Q-Q plot, together with mean and median were used to test for the normality of the data. After testing for statistical significance, the practical significance (effect sizes) was also computed to find out the magnitude of the differences.

### **Research Question One**

**What are the perceived environmental factors that influence students' selection of career and academic programmes?**

To find out the perception of students regarding the environmental factors that influence their choice of career and academic programmes, mean and standard deviation were used to analyse the data collected. Based on the scale used (Strongly Agree-4, Agree-3, Disagree-2, Strongly Disagree-1), a mid-point of 2.5 was used as the baseline for comparison. That is, mean value above 2.5 indicated that most of the respondents were in agreement to the statement. Conversely, a mean value less than 2.5 showed that most of the respondents were in disagreement to the statement. However, a mean of 2.5 depicted that the greater proportion of the respondents were neutral about the statement.

### **Research Question Two**

**What are the perceived institutional factors that influence students' selection of career and academic programmes?**

To examine students' perception regarding the institutional factors that influence their choice of career and academic programmes, responses were

analysed using mean and standard deviation. In using a four-point scale (Strongly Agree-4, Agree-3, Disagree-2, Strongly Disagree-1), a mid-point of 2.5 was used as the baseline for comparison. That is, mean values above 2.5 indicated that most of the respondents were in agreement to the statement. Conversely, a mean value less than 2.5 showed that most of the respondents

were in disagreement to the statement. A mean of 2.5 however depicted that, the greater proportion of the respondents were neutral about the statement.

### **Research Question Three**

**What are the perceived students' characteristics that influence their selection of career and academic programmes?**

To investigate the perception of students regarding the characteristics that influence their choice of career and academic programme, data collected was analysed by the use of mean and standard deviation. This was because the items were measured on a four-point scale (Strongly Agree-4, Agree-3, Disagree-2, Strongly Disagree-1), a mid-point of 2.5 was used as the baseline for comparison. That is, mean values above 2.5 indicated that most of the respondents are in agreement to the statement. Conversely, a mean value less than 2.5 showed that most of the respondents were in disagreement to the statement. Nevertheless, a mean of 2.5 depicted that the greater proportion of the respondents were neutral about the statement.

### **Hypothesis One**

**H01: There is no statistically significant gender difference in the perceived environmental factors that influence students' selection of career and academic programmes.**

The intent of this hypothesis was to test whether a statistically significant gender difference exist in the perceived environmental factors that influence students' selection of career and academic programmes. In order to achieve this aim, an independent t-test was used to test the data. This was necessary because, "gender", as a variable, had two levels (categorical) whereas "students' perception regarding the environmental factors that influence their choice of career and academic programmes" was on continuous measure. Since the idea was to find differences between two groups of people on a construct (Creswell, 2012), the independent t-test was deemed necessary to be used. The normality assumption was tested and was not violated using the Q-Q plot. In calculating for the practical significance, Cohen's *d* was used for the computation. In interpreting the result, Cohen (2013) indicated that values around .2 shows small effect, values around .5 indicates a moderate effect whereas values of .8 and above indicate large effect.

### **Hypothesis Two**

**H02: There is no statistically significant gender difference in the perceived institutional factors that influence students' selection of career and academic programmes.**

Hypothesis two sought to find out whether a statistically significant gender difference exist in the perceived institutional factors that influence students' selection of career and academic programmes. In order to achieve



this objective, an independent t-test was used to test this hypothesis. This was necessary because, “gender”, as a variable, had two levels (categorical) whereas “students’ perception regarding the institutional factors that influence their choice of career and academic programmes” was on continuous measure. Since the idea was to find differences between two groups of people on a construct (Creswell, 2012), the independent t-test was deemed necessary to be used. The normality assumption was tested and was not violated using the Q-Q plot. In calculating for the practical significance, Cohen’s *d* was used for the computation. In interpreting the result, Cohen (2013) indicated that values around .2 shows small effect, values around .5 indicates a moderate effect whereas values of .8 and above indicate large effect.

### **Hypothesis Three**

**H03: There is no statistically significant gender difference in the perceived students’ characteristics that influence students’ selection of career and academic programmes.**

The intent of this hypothesis was to test whether a statistically significant gender difference exist the perceived students’ characteristics that influence students’ selection of career and academic programmes. In order to achieve this aim, an independent t-test was used to test the data. This was necessary because, “gender”, as a variable, had two levels (categorical) whereas “students’ perception regarding the characteristics that influence their choice of career and academic programmes” was measured on a continuous basis. Since the idea was to find differences between two groups of people on a construct (Creswell, 2012), the independent t-test was deemed necessary to be used. The normality assumption was tested and was not violated using the Q-

Q plot. In calculating for the practical significance, Cohen's  $d$  was used for the computation. In interpreting the result, Cohen (2013) indicated that values around .2 shows small effect, values around .5 indicates a moderate effect whereas values of .8 and above indicate large effect.



## CHAPTER FOUR

### RESULTS AND DISCUSSIONS

#### Introduction

This section presents the analysis and discussion of the data gathered with regards to the research objectives. The discussion is divided into six sections per each research objective and the research hypotheses. In each segment, the discussion will indicate whether it affirms or contradicts existing literature. For each research objective, the students were asked to indicate on a four-point Likert scale the extent to which they agreed or disagreed with each statement. They were to indicate 1 as strongly agree, 2 as agree, 3 as disagree and four as strongly disagree. The mean responses dictated the direction of the responses with regards to this scale whilst the standard deviation values indicated how spread out the responses were.

If the standard deviation values are smaller than the mean response values, it implies a majority opinion. However, if the standard deviation values are larger than the mean response values, it implies majority of the respondents were far from that mean response value.

#### Demographic Information (Section A)

This study explored some demographic characteristics of the respondents. Table 6 presents details of these demographic characteristics.



Table 6: Demographic Characteristics of respondents

Variables	Frequency	(%)
<b>Gender</b>		
Male	161	34.8
Female	175	65.2
<b>Age range</b>		
19 years and above	38	11.3
16-18 years	209	62.2
Below 16 years	89	26.5
<b>Place of Residence</b>		
Semi-urban	90	26.8
Urban	186	55.4
Rural	60	17.9
<b>Occupation of Parents</b>		
Security Personnel	33	9.8
Teacher	141	42.0
Health Service	67	19.9
Financial Service	51	15.2
Vocational	44	13.1
<b>When did you decide to attend tertiary institution</b>		
Primary School	88	26.2
Junior High School	73	21.7
Senior High School	175	52.1
<b>Qualification of parents</b>		
Basic	69	20.5
Secondary	56	16.7
Tertiary	211	62.8
<b>When did you decide on your programme of study at the tertiary level</b>		
Primary School	52	15.5
Junior High School	56	16.7
Senior High School	228	67.9

Source: Field survey (2019)

It can be observed from Table 6 that majority (65.25%) of the students who participated in the study were males, most of whom (62.2%) were aged between 16 years and 18 years. Also, 55.4% of the students indicated they resided in urban areas whilst 26.8% indicated that they resided in semi-urban areas. With regards to their parent's occupation, 42.0% of the students indicated their parents were teachers and 9.8% indicated that their parents worked in the security sector. Similarly, majority (62.8%) of the students indicated that their parents had tertiary education whilst 20.5% of the students indicated their parents had only primary education. When asked to indicate when they decided to attend a tertiary institution, 52.1% said it was during secondary school whilst 26.2% said it was during primary school. For their program of study, 67.9% said they decided on it during secondary school whilst 16.7% said it was during junior high school.

### **Section B: Research Question 1**

#### **What are the environmental factors that influence student's selection of career choice and academic programme?**

This research question sought to find out students' perception of the environmental factors that influenced their choice of career and academic programmes. Descriptive statistics such as means and standard deviation were used to analyse the data collected on this research question. Based on the scale used (Strongly Agree-4, Agree-3, Disagree-2, Strongly Disagree-1), a mid-point of 2.5 was used as the baseline for comparison. That is, mean value above 2.5 indicated that most of the respondents were in agreement to the statement. Conversely, a mean value less than 2.5 showed that most of the

respondents were in disagreement to the statement. Details of the results are presented in Table 7.

Table 7: *Perceived environmental factors that influence students' choice of career and academic programmes*

<b>Influencing Factors</b>	<b>Mean</b>	<b>SD</b>
I like the prestige that comes with the profession	2.83	1.04
The programme is in line with my family's interest	2.35	0.97
Adults and relatives wished it for me.	2.66	1.15
The success of my family members in their academic pursuit influenced my career choice	2.49	0.99
My current career choice will enable to be self-employed	1.98	0.89
My career choices are in line with availability of job opportunities	2.18	0.90
My mother influenced my career decision	1.01	0.71
My friends have greater influence on my career choice.	3.11	1.52
My parent's record of economic success influenced my career decision.	1.21	0.81
I am interested in the programme because my friends are also interested in it	2.54	1.09
My parents can afford the cost of pursuing the programmes.	2.36	1.13
My father influenced my career decision and academic programme	2.92	0.98
The achievement of my friends in their various courses influenced my decision to choose my programme of study at the tertiary level	3.31	1.53
My parent's socio-economic status influenced my career decision and academic programme	2.61	1.18
<b>Overall Mean</b>	<b>2.40</b>	<b>1.06</b>

Source: Field survey (2019)

The perceived influence of environmental factors on students' career choice and academic programmes was sought. The results in Table 7



generally shows that, environmental factors did not influence respondents' choice of career and academic programmes (M= 2.40, SD=1.06). Reporting on the specifics, most of the respondents reported that, the most prominent environmental factors that influenced their choice of career and academic programme were as follows: "The achievement of my friends in their various

courses influenced my decision to choose my programme of study" (M=3.31, SD=1.53), "My friends have greater influence on my career choice" (M=3.11, SD=1.52), "My father influenced my career decision and academic programme" (M=2.92, SD=0.98), "I like the prestige that comes with the profession" (M=2.83, SD= 1.04), "Adults and relatives wished my career paths for me" (M=2.66, SD= 1.15), "My parents' socio-economic status influenced my career decision and academic programme" (M=2.61, SD= 1.18).

Similarly, most of the respondents disagreed to the following statements: "My mother influenced my career decision" (M= 1.01, SD= 0.71), "My parent's record of economic success influenced my career decision" (M = 1.21, SD= 0.81), "My current career choice will enable to be self-employed" (M = 1.98, SD= 0.89).

### Discussions

The findings of the study revealed that, although students' perception regarding environmental factors did not generally influence their career choice and academic programmes, students' perception regarding the achievement of friends in various courses, father's decisions on career and academic programmes, parental economic status, and the prestige attached to a particular profession influenced their choice of career and academic

programmes. The findings of the study further revealed that students' perception regarding their mothers influence, parents' record of economic success, as well as their current career choices did not in any way influence their choice of career and academic programmes.

The findings of this study support the findings of Payne (2003) who reported that, the roles parents play is often the most important factor in post school choices. The findings of the current study also affirm that of Walck and Hensby (2003) who indicated that the family gave significant support in decision-making as far as the academic choices of their wards are concerned. The findings of this study also agree with the findings of Mortimer (2015) and Gostein (2003) who opined that parents of low socio-economic status were not able to influence their children's choice of careers. Similarly, the findings of this study affirm the findings of Taylor et al., (2004) that parental support and encouragement were important factors that have been found to influence career choice.

It has been revealed that children may choose their career with influence of their parent (Peng & Jaffe, 1979) Smith (2000) also noted that mothers with educational background are more likely to influence career choice of their children than mothers without educational background.

The findings of this study however contradict with that of several authors (Reay et al. 2001; Yorke 1999; Gostein, 2000; Gofflich & Moses 2003) For instance, in their study, Gostein (2000), and Gofflich and Moses (2003) found that irrespective of children's interactions with their peers, ultimately, it was the parents who significantly influenced their children's career choices and programme of study.

## Research Question 2

**What are the perceived institutional factors that influence students' selection of career and academic programmes?**

The aim of this research question was to find out the perceived institutional factors that influenced students' selection of career and academic programmes. In order to achieve this objective, means and standard deviations were used to analyse the data gathered. In using a four-point scale (Strongly Agree-4, Agree-3, Disagree-2, Strongly Disagree-1), a mid-point of 2.5 was used as the baseline for comparison. That is, mean values above 2.5 indicated that most of the respondents were in agreement to the statement. Conversely, a mean value less than 2.5 showed that most of the respondents were in disagreement to the statement. A mean of 2.5 however depicts that, the greater proportion of the respondents were neutral about the statement. Details of the analysis are presented in Table 8.

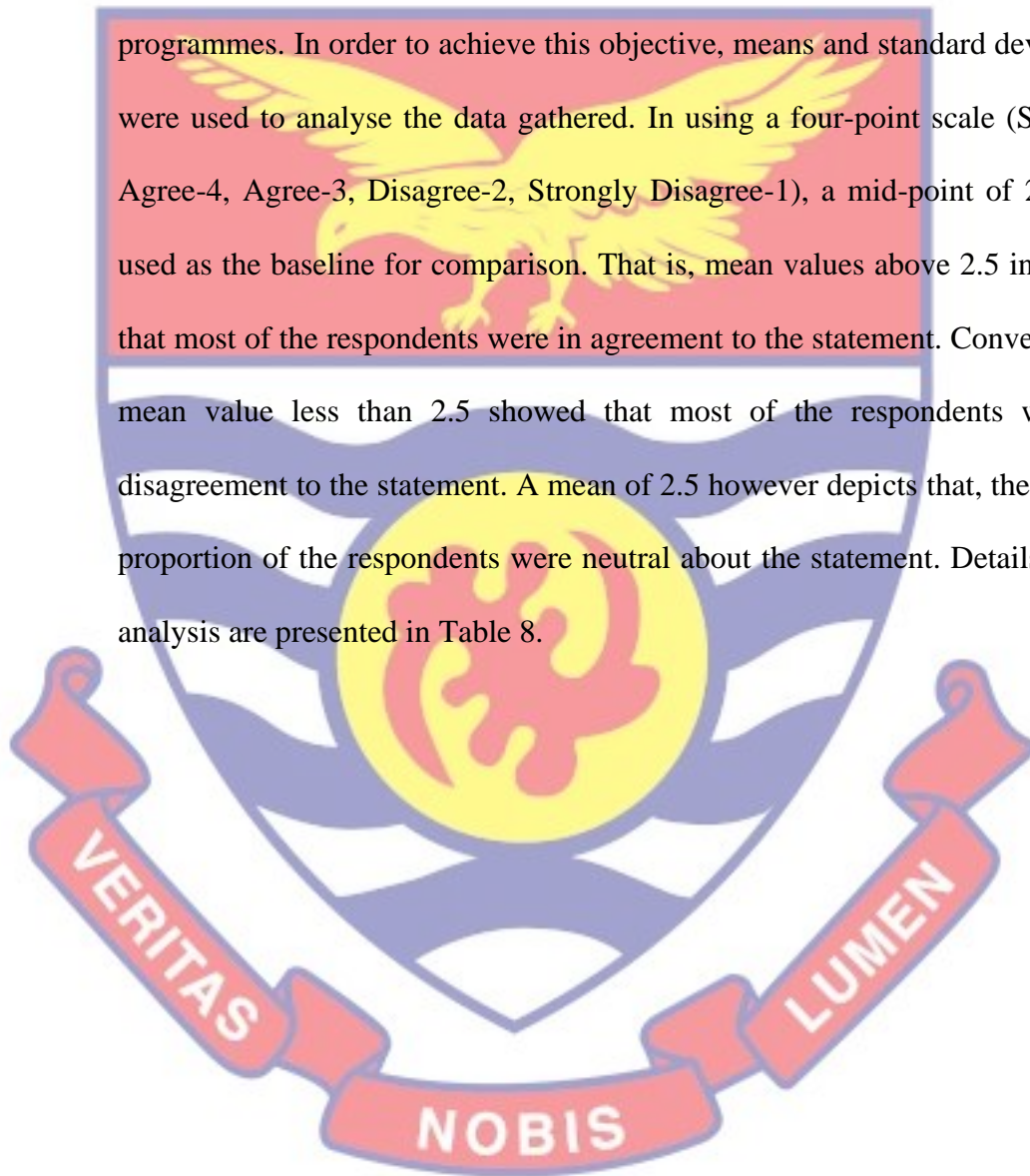




Table 8: *perceived institutional factors that influence students' selection of career and academic programmes*

<b>Institutional Factors</b>	<b>Mean</b>	<b>SD</b>
My programme of choice offers international opportunity for the future	3.57	1.03
Contact with students offering my programme of interest	1.63	0.92
Availability of good and modern facilities for teaching and learning	1.75	0.94
Confident staff are always available to help students.	2.37	0.72
The name of the institution influenced my choice	2.41	0.77
I prefer the location of the institution	2.00	0.80
The accurate information available I had about the occupational opportunities will help me make a sound career choice.	3.78	1.87
Students have good support from the institutional authorities	2.64	1.05
There are scholarship opportunities for the programme within and from outside the institution.	2.36	1.09
Overall Mean	2.50	1.02

Source: Field survey (2019);

The perceived influence of institutional factors on students' career choice and academic programmes was sought. As shown in Table 8, respondents generally indicated the institutional factors that influenced their choice of career and academic programmes ( $M = 2.50$ ,  $SD = 1.02$ ). Specifically, most of the respondents agreed to the following statements: "The accurate information available to me regarding occupational opportunities helped me make a sound career choice" ( $M = 3.78$ ,  $SD = 1.87$ ), "My programme of choice offered me international opportunity for the future" ( $M = 3.57$ ,  $SD = 1.03$ ), "Students have good support from the institutional authorities as far as their career choices and academic programmes are concerned" ( $M = 2.64$ ,  $SD = 1.05$ ).

The respondents however disagreed to the following statements regarding the perceived factors that influenced their choice of career and academic programmes: “Contact with students offering my programme of interest” (M = 1.63, SD= 0.92), “Availability of good and modern facilities for teaching and learning” (M = 1.75, SD= 0.94), “I prefer the location of the institution” (M = 2.00, SD= 0.80).

### Discussions

Generally, the findings of this study revealed that students’ perception of institutional factors influenced their choice of career and academic programmes. This was evident in the fact that, students’ perception of institutional factors such as good support from institutional authorities, accurate dissemination of occupational opportunities by school authorities, the international opportunity the programme of choice offers for the future, among others influenced students’ choice of career and academic programmes.

The finding of this study is consistent with the findings of several authors (Martinez & Munday, 1998; Yorke, 1999; While Boyd & MacDowall, 2003). For instance, Martinez and Munday (1998) discovered that institutional factors such as accurate dissemination of occupational opportunities by school authorities influenced students’ career choice and academic programmes. Similarly, Boyd and MacDowall (2003) found that good support from institutional authorities such as dissemination of career information informed students’ choice of career and academic programmes. Boyd and MacDowall (2003) explained that at the second cycle institution for instance, school teachers and career counsellors are considered to have

the most influence regarding students' knowledge on available career choices.

The finding of this study however contradicts with the findings of a number of authors (Turner, 2002; Brennan, 2001; Martin, 1996; Tumblin, 2002; Jackson, 1986; James, 2001). The aforementioned authors discovered that the reputation and prestige of an institution influenced students' choice of career and academic programmes. The authors further noted that the availability of resources for academic and professional services in terms of equipments and facilities also accounted greatly for students showing interest in enrolling in an institution. This finding contradicts the findings of this current study, in that, most of the respondents disagreed to the fact that availability of good and modern facilities for teaching and learning influenced their choice of career and academic programmes.

### **Research Question 3**

**What are the perceived personal characteristics that influence students' choice of career and academic programme?**

The intent of this research question was to examine students' perception regarding the personal characteristics that influence their choice of career and academic programmes. Data collected on the research question was analysed using means and standard deviations. This was because the items were measured on a four-point scale (Strongly Agree-4, Agree-3, Disagree-2, Strongly Disagree-1), a mid-point of 2.5 was used as the baseline for comparison. That is, mean values above 2.5 indicated that most of the respondents are in agreement to the statement. Conversely, a mean value less



than 2.5 showed that most of the respondents were in disagreement to the statement. Details of the analysis are presented in Table 9.

Table 9: *Perceived personal characteristics that influence students' choice of career and academic programme*

<b>Personal Characteristics</b>	<b>Mean</b>	<b>SD</b>
Opportunity to major in area of interest	2.76	1.18
Naturally I am very good at my programme of interest	2.86	1.12
My personal interest will influence my choice of career and programme	1.65	0.13
My values and aspirations will influence my career choice	2.56	1.03
My excellent academic performance will influence my choice of programme and career	2.04	0.99
My current career choice is in line with my personal goals	1.04	0.96
I want to feel a sense of accomplishment in my choice	2.64	0.93
My current career choices will help me to apply skills and knowledge	2.51	1.15
My career choice will be driven by my intellectual skills and ability	1.33	0.16
I prefer careers that are very flexible	2.40	1.14
<b>Overall Mean</b>	<b>2.17</b>	<b>1.60</b>

Source: Field survey (2019)

The perceived influence of personal characteristics on students' career choice and academic programmes was sought. As shown in Table 9, respondents generally disagreed that personal characteristics influenced their choice of career and academic programmes. Reporting on the specifics however, most of the respondents reported that, "being naturally good at a programme of interest" (M = 2.86, SD= 1.12), "Opportunity to major in their area of interest" (M = 2.76, SD= 1.18), "feeling a sense of accomplishment in

a particular career choice” (M = 2.64, SD= 0.93), often influenced their choice of career and academic programmes.

From Table 9, the respondents further reported that “their values and aspiration in a particular career” (M = 2.56, SD= 1.03) also influenced their choice of career and academic programmes. The respondents however disagreed to the following statements regarding the influence of personal characteristics on their career choice and academic programmes: “My career choice will be driven by my intellectual skills and ability” (M = 1.33, SD= 0.16), “I prefer careers that are very flexible” (M = 2.40, SD= 1.14).

### **Discussions**

The finding of this study revealed that, although perceived personal characteristics did not generally influence students’ choice of career and academic programmes, the opportunity to major in one’s area of interest, being naturally good at a programme of interest, feeling a sense of accomplishment in a particular career choice, as well as one’s values and aspiration in a particular career, were the most personal characteristics that influenced their choice of career and academic programmes. The study further discovered that the preference for careers that were very flexible as well as career choices that were driven by intellectual skills and ability did not in any way influence students’ career choice and academic programmes.

The finding of the current study is consistent with the findings of Nguyen and Taylor (2003) that academic ability has a powerful effect and has a statistically significant effect on students’ choice of career and academic programmes. The findings of this study also corroborate the findings of several authors (Mihyeon, 2009; Porter & Umbach, 2006; Holland, 1992). The

aforementioned authors noted that most students did not just consider their academic strength to choose their programme of study or career, however, they also considered their interest and future desires as well when deciding on a career or an academic programme.

The finding of this study is also in line with the findings of Boyd et al. (2001) and Yorke (1999) and Christie et al. (2004) that personal interest was a primary motivator for making choices on career and programme of study among students. Similarly, the findings of this study agree with Mihyeon, (2009) who noted that students who believed in themselves had more confidence and were more likely to go for what they wanted instead of settling for something that was comfortable, as a result, were more likely to select a career or programme of study based on the confidence they had in themselves.

### **Hypothesis Testing**

The study tested three hypotheses. Prior to testing these hypotheses, the normality assumption, which is fundamental of all parametric assumptions was tested. This was tested using mean, median, 5% trimmed mean, and the normal Q-Q plot. Details of the results are presented in Table 10.

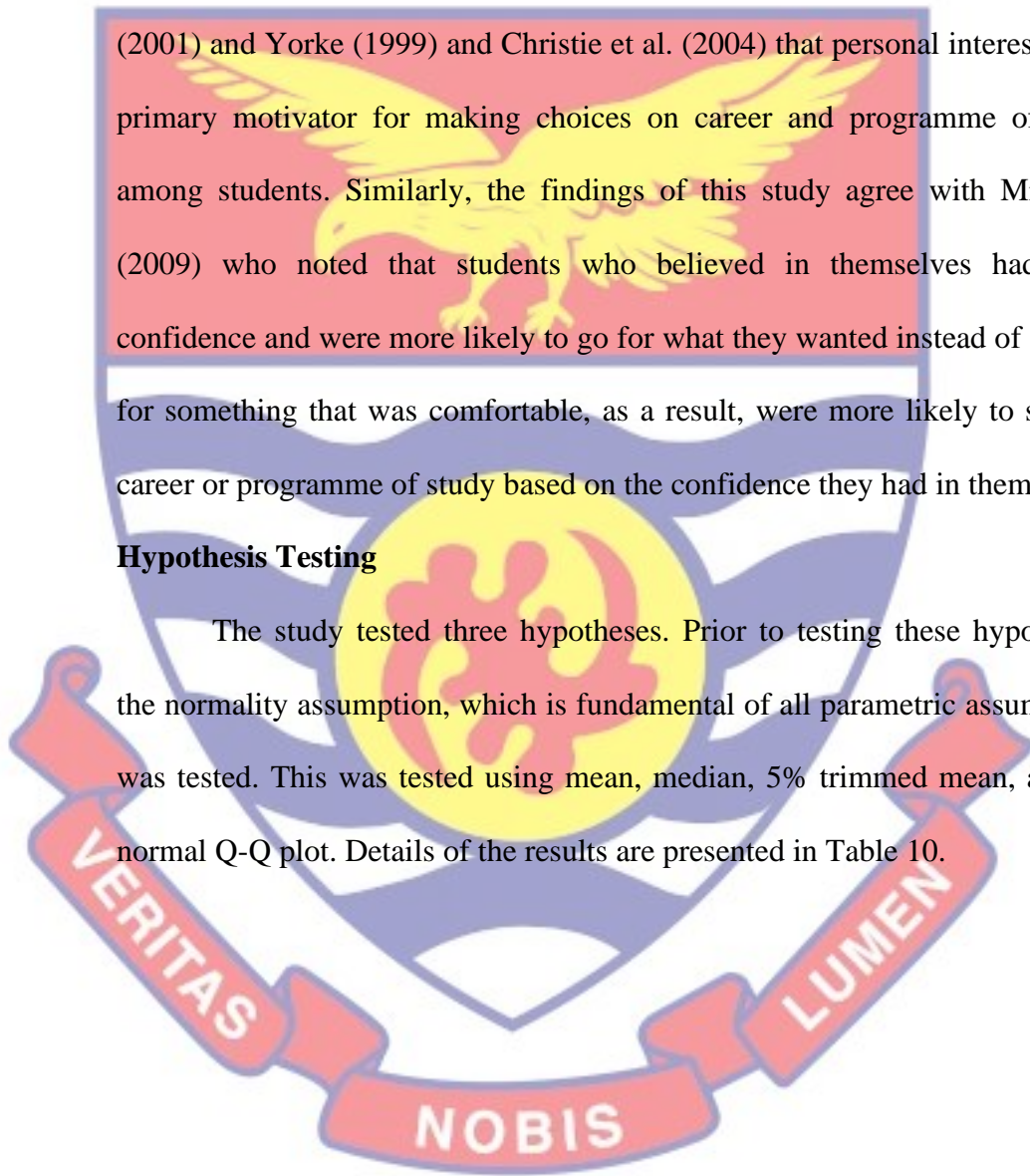




Table 10: *Test for Normality*

Parameters	Environmental Factors	Institutional Factors	Students' Characteristics
Mean	36.89	21.25	18.63
Standard deviation	5.53	4.33	3.91
5% Trimmed mean	37.12	21.10	18.55
Median	38.00	21.00	19.00

Source: Field survey (2019)

As presented in Table 10, the mean, median, and 5% trimmed mean of environmental factors, institutional factors and students' characteristics were approximately equal. This implies that the distribution of scores of the aforementioned variables were normally distributed (Pallant, 2020). Additionally, the normal Q-Q plots for all the variables were also examined (see Appendix B). From Appendix B, the normal Q-Q plots for all the variables showed that the distribution of all the scores were closer to the straight line. These evidences suggest that the normality assumption that underlies the use of independent sample t-test for has been satisfied.

### **Hypothesis One**

**H01: There is no statistically significant gender difference in the perceived environmental factors that influence students' selection of career and academic programmes.**

This hypothesis sought to examine whether a statistically significant gender difference exist in students' perception of environmental factors that influence their selection of career and academic programmes. An independent samples t-test analysis was conducted to test this hypothesis. The independent variable was the composite score for the respondents' perception of

environmental factors that influence their selection of career and academic programmes. Prior to the analysis, assumptions underlying the use of independent t-test were checked. Results from the normal Q-Q plot revealed that the data did not violate the normality assumption (see Appendix B and Table 10).

Similarly, the equal variance assumption was also tested to find out whether the variances between the groups are the same. Results from the Levene's test for equality of variances revealed that the equality of variance assumption was not violated ( $F=.825, p =.364$ ). Table 11 further presented the actual analysis testing the difference between the two groups with regards to the dependent variable.

Table 11: *Gender Differences in Students' Perception of environmental factors that influence their selection of career and academic programmes.*

Gender	N	Mean	SD	Df	t-value	p-value
Male	219	37.041	5.517	334	.699	.485
Female	117	36.598	5.557			

Source: Field survey (2019); \*significant,  $p >.05$

Results from Table 11 revealed a non-statistically significant difference in the perception of male and female students regarding the environmental factors that influenced their selection of career and programmes in public universities,  $t(334) =.699, p = .485$ . The results suggest that male and female students of public Senior High Schools in the Ashanti Mampong Municipality had the same perception as far as the environmental factors that influenced their choice of career and academic programmes were concerned. Even though the result was not statistically significant, the effect size was also

calculated to find out the magnitude of the difference. Cohen's  $d$  was used for the computation.

A value of .080 was obtained for the effect size. Based on the criteria given by Cohen (2013) which states that values of .20 or less is small, values greater than .20 or less than .80 is medium and values of .80 and above is large effect size. Based on this, the magnitude of the difference in the perception of male and female students regarding the environmental factors that influenced their selection of career and programmes was small.

### **Discussions**

The findings of this study revealed a non-significant difference in the perception of male and female students regarding the environmental factors that influenced their selection of career and programmes in public universities. This suggests that both male and female students had approximately the same level of perception regarding the environmental factors that influenced their selection of career and programmes in public universities. The result suggests that gender did not influence senior high school students' perception of the environmental factors that influenced their selection of career and programmes in public institutions.

The finding of this study contradicts that of Gates (2002) who asserted that environment factors such as counselling from teachers and parents on career choices often reflect a gender bias when directing girls towards traditional careers and boys towards non-traditional careers. Grates (2002) explained that most traditional societies have placed gender roles to the children and children often grow up knowing that some responsibilities, duties, careers are preserved for certain genders. The finding of the current



study also disagrees with Momsen (2000) who explained that in many African civilizations, there are careers that are believed to be male or female fields and society attempts to train this attitude in boys and girls during socialization.

For instance, due to the influence of environmental factors in career choices, females are less likely to be employed in engineering or science related jobs since such fields are traditionally considered to be men's occupations. In the event that females are employed in the aforementioned fields, the remuneration is often biased with women earning less than what men earn (Graham & Smith, 2005). Interestingly, Graham and Smith (2005) explained that some of the factors that narrow women into traditional roles include social and family influences, lack of education and awareness regarding non-traditional options, environmental factors, as well as discrimination within career fields.

### **Hypothesis Two**

**H02: There is no statistically significant gender difference in the perceived institutional factors that influence students' selection of career and academic programmes.**

This hypothesis was interested in finding out whether statistically significant gender difference existed in students' perception of institutional factors that influenced their selection of career and academic programmes. In order to achieve this aim, an independent samples t-test analysis was conducted to test this hypothesis. The independent variable was the composite score for the respondents' perception of institutional factors that influence their selection of career and academic programmes. Prior to the analysis, assumptions underlying the use of independent t-test were checked. Results

from the normal Q-Q plot revealed that the data did not violate the normality assumption (see Appendix B and Table 10).

Similarly, the equal variance assumption was also tested to find out whether the variances between the groups are the same. Results from the Levene’s test for equality of variances revealed that the equality of variance assumption was not violated ( $F= 2.074, p =.150$ ). Table 12 further presented the actual analysis testing the difference between the two groups with regards to the dependent variable.

Table 12: *Gender Differences in Students' Perception of institutional factors that influence their selection of career and academic programmes.*

Gender	N	Mean	SD	Df	t-value	p-value
Male	219	20.849	3.800	334	-2.338	.020
Female	117	22.000	5.105			

Source: Field survey (2019); \*significant,  $p < .05$

From Table 12, there is a statistically significance difference in male and female students’ perception regarding the institutional factors that influence their choice of career and academic programmes in Ghanaian public universities,  $t(334) = -2.338, p = .020$ .

This result indicates SHS male and female students in the Ashanti Mampong Municipality have different perceptions regarding the institutional factors that influenced their choice of career and academic programmes. Thus, results from the results in Table 12, it can be said that female students had a higher perception about the fact that, institutional factors influenced their choice of career and academic programmes in the university ( $M = 22.00, SD = 5.11$ ) compared to their male counterparts ( $M = 20.84, SD = 3.80$ ). That is to say, female students unlike male students, took into consideration a number of

factors available in an institution before deciding on their career and academic programmes as students.

In order to establish the practical significance of the results, the effect size was also computed to find out the magnitude of the difference. This computation was done using Cohen's *d*. A value of .25 was obtained for the effect size. Based on the criteria given by Cohen (2013) which states that values of .20 or less is small, values greater than .20 or less than .80 is medium and values of .80 and above is large effect size. Based on this, the magnitude of the difference between male and female students' perception of institutional factors that influenced their choice of career and academic programmes was medium.

### Discussions

The findings of this study shows that, female students had a higher perception of the institutional factors that influenced their choice of career and academic programmes compared to their male students, agrees with the findings of Hooley (2012) that the gender differences existed in the institutional factors that influenced students' choice of career and academic programmes. The finding of this study is also consistent with the findings of James (2001) that significant gender differences existed in the instructional factors that influence students' choice of career and academic programmes. James (2001) explained that female students unlike male students were more interested in the prestige and reputation of an institution when selection a programme of study in a particular institution. The finding of the current study however disagrees with the findings of Martin (1996) that no significant



gender difference existed in the institutional factors that influenced students' choice of career and academic programmes.

### **Hypothesis Three**

**H03: There is no statistically significant gender difference in the perceived personal characteristics that influence students' selection of career and academic programmes.**

This hypothesis sought to determine whether statistically significant gender difference existed in students' perception of personal characteristics that influenced their selection of career and academic programmes. An independent samples t-test analysis was conducted to test this hypothesis. The independent variable was the composite score for the respondents' perceived personal characteristics that influenced their selection of career and academic programmes. Prior to the analysis, assumptions underlying the use of independent t-test were checked. Results from the normal Q-Q plot revealed that the data did not violate the normality assumption (see Appendix B and Table 10).

In the same vein, the equal variance assumption was also tested to find out whether the variances between the groups are the same. Results from the Levene's test for equality of variances revealed that the equality of variance assumption was not violated ( $F=.259$ ,  $p=.611$ ). Table 13 further presented the actual analysis testing the difference between the two groups with regards to the dependent variable.

Table 13: *Gender difference in students' perception of personal characteristics that influence their selection of career and academic programmes*

Gender	N	Mean	SD	df	t-value	p-value
Male	219	18.406	3.939	334	-1.462	.145
Female	117	19.059	3.835			

Source: Field survey (2019); \*significant,  $p > .05$

Results from Table 13 found a non-statistically significant gender difference in students' perception regarding the personal characteristics that influenced their choice of career and academic programmes in tertiary institutions,  $t(334) = -1.462, p = .145$ . The results suggest that SHS male and female students in the Ashanti Mampong Municipality did not differ in terms of the personal characteristics that influenced their choice of career and academic programmes in Ghanaian public universities. Although the result was not statistically significant, the effect size was also calculated to find out the magnitude of the difference. Cohen's  $d$  was used for the computation.

A value of .16 was obtained for the effect size. Based on the criteria given by Cohen (2013) which states that values of .20 or less is small, values greater than .20 or less than .80 is medium and values of .80 and above is large effect size. Based on this, the magnitude of the difference in male and female students' perception regarding the personal characteristics that influenced their choice of career and academic programmes was small.

### Discussions

The finding of this study that, male and female students did not differ in terms of the personal characteristics that influenced their choice of career and academic programmes in Ghanaian university is inconsistent with the findings of Hewitt (2009) who discovered a significant gender difference in

the personal characteristics that influenced students' choice of career and academic programmes. Hewitt (2009) explained that, unlike males, females were often inclined to career paths that were foreseeable, inferior and less financially productive, with low pressure levels, and these females rarely aim to occupy leadership position and decision-making positions. Hewitt (2009) further explained that females chose occupations that had steady hours of work to allow them to accomplish some domestic duties. The preceding argument also supports the fact that career choices are usually a product of one's socialization since society's gender role socialization regulates what roles men and women should aim at (Mberia & Midigo 2018).

### **Chapter Summary**

The study examined factors that influenced SHS students' choice of career and academic programmes in public tertiary institutions in Ghana. The results of the study revealed different information on how environmental factors, institutional factors and personal characteristics of the students influenced their career choice and programme of study. Furthermore, the hypotheses tested revealed that although male and female students did not differ in their perceptions regarding the environmental factors as well as personal characteristics that influenced their choice of career and academic programmes, male and female students differed in their perceptions regarding institutional factors that influenced their selection of career and educational programmes in tertiary institutions. Female students had a higher perception about the fact that, institutional factors influenced their choice of career and academic programmes in the tertiary institutions compared to their male counterparts. That is to say, female students unlike male students, took into



consideration a number of factors available in tertiary institutions before deciding on their career and academic programmes as students.



## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

The purpose of the study was to investigate the perceived factors that influenced Senior High School (SHS) students' choice of career and academic programmes in public tertiary institutions in the Ashanti Mampong Municipality. This chapter presents a summary of the study, the conclusions drawn from the study, recommendations and suggestions for further studies were also captured in this chapter. The recommendations and suggestions for further studies were based on the findings of the study.

#### Summary

##### Overview of the Study

The study investigated the perceived factors that influenced SHS students' choice of career and academic programmes in public tertiary institutions in the Ashanti Mampong Municipality. The study was guided by six objectives which were transformed into three research questions and three hypotheses. The descriptive survey design, specifically, the cross-sectional design, with a quantitative approach was employed in the conduct of the study. The accessible population for the study consisted of the third-year students in four public senior high schools in the Ashanti Mampong Municipality, with a total number of 2,642. Multi-stage sampling technique was used to sample 336 teachers from the respective schools.

A 41-item Educational Career Questionnaire was used to gather data from the respondents. The instrument was pilot tested using thirty (50) junior high school students from Nsutaman Catholic Senior High School in Sekyere Central District of Ghana. The responses given by respondents were used to

refine the questionnaire. The pilot-testing was necessary because it enhanced the content validity and reliability of the instrument. Also, it improved the question format after a careful analysis of the items was done based on the comments by respondents concerning the weaknesses, clarity and ambiguity on all aspects of the questionnaire. The data collected, was screened to ensure completeness and analysed using the Statistical Product for Service Solution (SPSS) Version 20 software. The data on the demographic variables of the respondents were analysed using simple frequencies and percentages. Data on research questions 1, 2 and 3 were analysed using means and standard deviations. Similarly, data on hypotheses 4, 5, and 6 were tested using independent samples t-test.

### **Key Findings**

The following findings emerged from the conduct of the study:

1. It was found that although students' perception regarding environmental factors did not generally influence their choice of career and academic programmes, students' perception regarding the achievement of friends in various courses, father's decisions on career and academic programmes, parental economic status, and the prestige students attached to a particular profession influenced their choice of career and academic programmes. The study however discovered that students' perception regarding their mother's influence in career decision, parents' record of economic success, as well as their current career choices did not in any way influence their choice of career and academic programmes.



2. The study also revealed that students' perception regarding institutional factors generally influenced their choice of career and academic programmes. This was evident in the fact that, students' perception regarding institutional factors such as good support from institutional authorities, accurate dissemination of occupational opportunities by school authorities, the international opportunity the programme of choice offered for the future, among others influenced students' choice of career and academic programmes.

3. It was found that although perceived personal characteristics did not generally influence students' choice of career and academic programmes, the opportunity to major in one's area of interest, being naturally good at a programme of interest, feeling a sense of accomplishment in a particular career choice, as well as one's values and aspiration in a particular career, were the most personal characteristics that influenced students' choice of career and academic programmes. The study further discovered that the preference for careers that were very flexible as well as career choices that were driven by intellectual skills and ability did not in any way influence students' career choice and academic programmes.

4. The study further revealed a non-significant difference in the perception of male and female students regarding the environmental factors that influenced their selection of career and programmes in public universities. Thus, both male and female students had approximately the same level of perception regarding the environmental factors that influenced their selection of career and

programmes in public universities. In other words, gender did not influence senior high school students' perception of the environmental factors that influenced their selection of career and programmes in public institutions.

5. The study found a statistically significant difference between male and female students' perception regarding the institutional factors that influenced their choice of career and academic programmes in Ghanaian public institutions. Female students had a higher perception about, institutional factors influencing their choice of career and academic programmes in the university as compared to their male counterparts.

6. The study also found a non-statistically significant gender difference in students' perception regarding the personal characteristics that influenced their choice of career and academic programmes. Thus, SHS male and female students did not differ in terms of their personal characteristics that influenced their choice of career and academic programmes in Ghanaian public universities.

### **Conclusions**

Based on the findings of the current study, it can be concluded that environmental factors, influenced students' career choice and choice of academic programme. Parent and peers have a greater influence in determining the career and academic programme choice of students.

The study again revealed that institutional factors also influence students' career and academic programme choice. This is because

international and occupational opportunities offered by the institutions influenced student's career and academic programme choice.

The study showed that personal characteristics of student's influenced students' career choice and programme. The outcome of this result stem from the fact that some students are very good in specific subject area, therefore there is the possibility of such students to choose a programme to study at the tertiary level in line with their interest, accomplishment and future aspirations.

The study further revealed that there is no gender difference with regards to environmental factors. It can be concluded that both male and female students had similar environmental factors that influenced their career and academic programme choice. With respect to institutional factors there was a significant gender difference. It can be concluded that male and female students differ in terms of institutional factors where female students dominated more than the male students. The study also showed that there was no gender difference with respect to personal characteristics. Thus, both male and female students do not differ with regards to personal characteristics. This may be because of individual difference and both are from different background, therefore, their decisions about their aspirations may differ from each other.

### **Recommendations**

Based on the findings of the findings and the conclusions drawn, the following recommendations are made to guide the development of policy and practice:

1. With respect to environmental factors, it is recommended that parents should not choose career for their wards but allow them to look within



themselves and choose a career that best fits them. This can be achieved by educating parents through the mass media and other channels on the important of allowing their wards to choose their career themselves.

2. With respects to the institutional factors, the school management and

counsellors should ensure that students get accurate and reliable information about the tertiary institutions they are interested in, especially reliable information on the programme of they wish to pursue.

3. It is recommended that more career guidance seminars should be organized for senior high school students in the Mampong municipality to know the right factors to considers when choosing career and academic programme

4. Personal characteristics of students have shown to have a very significant impact on their decision regarding career choice and programme of study. Therefore, school counselors and management are encouraged to focus on specific intellectual skills and ability of students that will boost their confidence. Thus, allocating resources to improve on the environmental factors, institutional factors and personal characteristics is very important as it has shown to not only have significant effect on student's decision making but also subjective to males and female students alike.

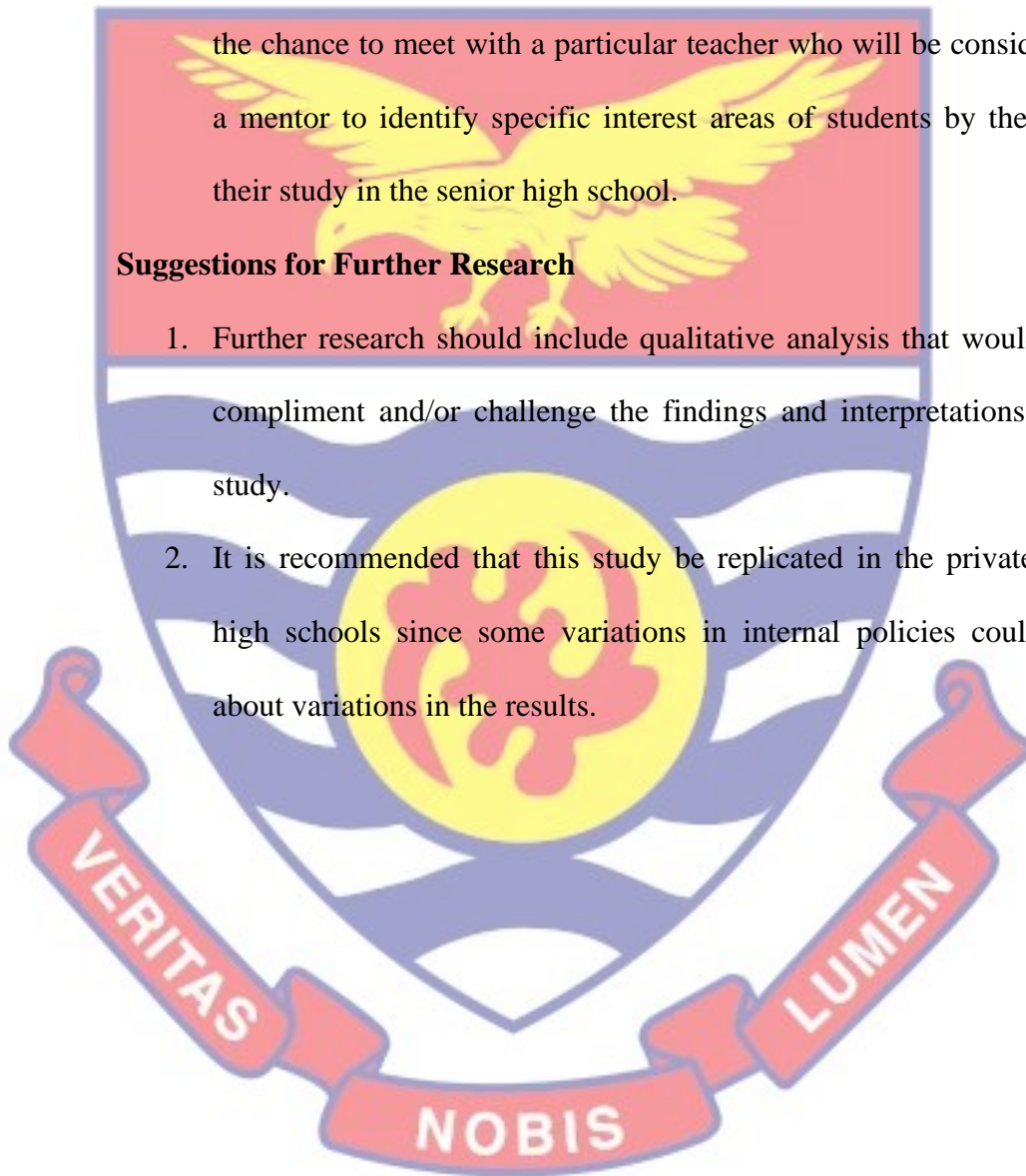
5. Again, because interest and skills play important role in determining career choice, it is recommended that individuals considering making career and academic choice decisions should opt for a career in which

they have interest. All individuals should be encouraged to make career choice decisions in areas they have or can acquire knowledge and skills easily since productivity is achieved when one is interested doing what he or she is interested in.

6. It is recommended that school authorities should give each students the chance to meet with a particular teacher who will be considered as a mentor to identify specific interest areas of students by the end of their study in the senior high school.

#### **Suggestions for Further Research**

1. Further research should include qualitative analysis that would either compliment and/or challenge the findings and interpretations of this study.
2. It is recommended that this study be replicated in the private senior high schools since some variations in internal policies could bring about variations in the results.



## REFERENCES

- Abbasi, M. N., & Sarwat, N. (2014). Factors Including Career Choice: Comparative Study of Five Leading Professions in Pakistan. *Pakistan Journal of Commerce and Social Science*, 8(3), 830-845.
- Adenyinka, A. A. (2001). Secondary schooling and career preference of Adolescence in the eastern and Lagos West Africa. *Journal of Education*, 12(2), 46-69.
- Aghamehi, K. (1998). Motives and career choices of Iranian dental students. *Medical Principles and Practice*, 11(1), 135-147.
- Agormedah, E. K., Britwum, F., Amoah, S. O., Acheampong, H. Y., Adjei, E., & Nyamekye, F. (2021). Assessment of time management practices and students' academic achievement: The Moderating Role of Gender. *International Journal of Social Sciences and Educational Studies*, 8(4), 171-188.
- Ajobola, M. O., Emeghe, I. J., Oluwumo, A. O., & Ono, A. S. (2017). A Study on Students' Choice of Programme in the University. *Journal of Educational and Social Research*, 7(1).
- Ajzen, I. (1988). *Attitudes, personality, and behaviour*. Buckingham, England: Open Press University.
- Ajzen, I. (2011). *The theory of planned behaviour: Reactions and reflections*. Homewood, IL, US: Dorsey Press.
- Akpochafo, G.O. (2018) Education in Nigeria, Career Intellectuals and Sustainable National Development: *Counselling Implication*. *Journal of Education and Learning* 7(3), 102-108



Akyina, K. O., Oduro-Okyireh, G., Owusu, B., & Gongoli, M. (2014). Factors influencing choice of agricultural science programme by female senior high school students in Mampong Municipality of Ghana. *The International Journal of Humanities and Social Studies*, 2(9), 247-251.

Albarracin, D., Johnson, B. T., Fishbein, M., & Muellerleile, P. A. (2001). Theories of reasoned action and planned behaviour as models of condom use: A meta-analysis. *Psychological Bulletin*, 127(1), 142-161.

Alika, I. H. (2010). Parental and peer group influence as correlates of career choice in humanities among secondary school students in Edo State, Nigeria. *Journal of Research in Education and Society*, 1(1), 178-185.

Al-Rfou, A. N. (2013). Factors that influence the choice of business major evidence from Jordan. *Journal of Business and Management*, 8(2), 104–108.

Amoth, D., & Oyamo, R. O. (2007). Choice of final year options by undergraduate students at the Moi University school of information sciences. *East African Journal of Information Sciences*, 1(1), 1-10.

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471-499.

Arudo, T. O. (2008). *Peer counseling experience among selected Kenyan secondary schools*. KAPA Conference, Kisumu, Kenya.

Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology*, 4(3), 359-373.

Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development, 1*, 187-206

Bank, B. J. (1995). Friendships in Australia and the United States: From feminization to a more heroic image. *Gender and Society, 9*(1), 79-98.

Belisle, J., Stanley, C. R., Alholail, A. M., Galliford, M. E., & Dixon, M. R. (2019). Abstraction of tactile properties by individuals with autism and Down syndrome using a picture-based communication system. *Journal of Applied Behaviour Analysis, 52*(2), 467-475.

Boaz, A., Hanney, S., Borst, R., O'Shea, A., & Kok, M. (2018). How to engage stakeholders in research: Design principles to support improvement. *Health Research Policy and Systems, 16*(1), 1-9.

Bolles, M. E., & Bolles, R. N. (2011). *What color is your parachute? -Guide to job-hunting online: Career sites, cover letters, gateways, getting interviews, job search engines, mobile apps, networking, niche sites, posting resumes, research sites, super sites and more*. London: Random House Digital, Inc.

Borgen, W., & Heibert, B. (2006). Career guidance and counselling for youth: what adolescents and youth people are telling us. *Journal for the Advancement of Counselling, 28*, 41-47.

Bowers, T. A. (1976). Student attitudes toward journalism as a major and a career. *Journalism Quarterly, 51*(2), 265-270.

Boyd, S., & MacDowall, S. (2003). *Innovative pathways from secondary school: Gaining a sense of direction*. A Paper Presented at NZARE/AARE Conference: 29 November-3 December 2003. Auckland New Zealand.

Boyd, S., Chalmers, A., & Kumekawa, E. (2001). *Beyond school: Final year school students' experiences of the transition to tertiary study or employment*. New Zealand: NZCER Distribution Services.

Breakwell, G. M. (1988). Strategies adopted when identity is threatened. *Revue Internationale de Psychologie Sociale*, 1(2), 189–203.

Brennan, L. (2001). Choosing a university course: First year students' expertise and information search activity. *Higher Education Research and Development*, 20(2), 217-224.

Brennan, L., & Marriott, F. (2001). *How prospective students choose universities*. A buyer behaviour perspective (Doctoral dissertation).

Brooks, R. (2004). My mum would be as pleased as punch if I actually went, but my dad seems a bit more particular about it: Paternal involvement in young people's higher education choices. *British Educational Research Journal*, 30(4), 495-514.

Brown, I., & Inouye, D. K. (1978). Learned helplessness through modeling: The role of perceived similarity in competence. *Journal of Personality and Social Psychology*, 36(8), 900–908.

Cabrera, A. F., & La Nasa, S. M. (2000). Understanding the college-choice process. *New Directions for Institutional Research*, 2000(107), 5-22.



Canes, B. J., & Rosen, H. S. (1995). Following in her footsteps? Faculty gender composition and women's choices of college majors. *ILR Review*, 48(3), 486-504.

Carnegie Foundation for the Advancement of Teaching (1986). *The autobiography of Andrew Carnegie*. Boston, MA: Northeastern University Press.

Carrico, C., Matusovich, H. M., & Paretto, M. C. (2019). A qualitative analysis of career choice pathways of college-oriented rural central Appalachian high school students. *Journal of Career Development*, 46(2), 94-111.

Cattell, R. B., & Dual, B. (2018). Inheritance to life history theory. *Journal of Abnormal and Social Psychology*, 42, 402-421

Chalmers, A. (2001). *Maximising your marketing to senior secondary school students: Analysing student decision making and the implications for marketing strategies*. HR Conference on Marketing Education. Central Hotel Auckland.

Champagne, F. A. (2020). Interplay between paternal germ line and maternal effects in shaping development: The overlooked importance of behavioural ecology. *Functional Ecology*, 34(2), 401-413.

Choat, D. (1998). *The myth of equal opportunity: Wealth of school-district as a determinant of tertiary participation*. Aotearoa: Aotearoa Polytechnic Students Union.

Choy, S. P., Horn, L. J., Nuñez, A. M., & Chen, X. (2000). Transition to college: What helps at-risk students and students whose parents did not attend College. *New Directions for Institutional Research*, 2000(107), 45-63.

Christie, H., Munro, M., & Fisher, T. (2004). Leaving university early:

Exploring the differences between continuing and non-continuing students. *Studies In Higher Education*, 29(5), 617-636.

Chumba, G. J., & Gachunga, H. (2016). Effect of organizational factors on retention of generation Y employees in parastatals: A case of Kenya revenue authority. *The Strategic Journal of Business and Change Management* 4(48), 905-923.

Clutter, C. (2010). *The effects of parental influence on their children's career choices*.

Cohen, J. (2013). *Statistical power analysis for the behavioural sciences*. New Jersey: Academic press.

Coleman, R. J. (1996). The engineering education coalitions. *ASEE Prism*, 6, 24-31.

Connell, R. W. (2004). Working-class parents' views of secondary education. *International Journal of Inclusive Education*, 8(3), 227-239.

Conner, M., & Sparks, P. (2015). The theory of planned behaviour and reasoned action approach. *Predicting and Changing Health Behaviour: Research and Practice with Social Cognition Models*, 3, 142-188.

Connor, H., Dewson, S., Tyers, C., Eccles, J., Regan, J., & Aston, J. (2001).

*Social class and higher education: Issues affecting decisions on participation by lower social class groups.* Retrieved from <https://blogs.ed.ac.uk>

Creed, P. A., Prideaux, L. A., & Patton, W. (2005). Career decision making

certainty. *Journal of Adolescence*, 30, 51-57

Cresswell, J. W. (1994). *Research design: Qualitative and quantitative approaches.* California: Sage.

Creswell, J. (2012). *Planning, conducting and evaluating quantitative and qualitative research* (4<sup>th</sup> ed.). Boston: Pearson Publication.

Demi, M. A., Coleman-Jensen, A., & Snyder, A. R. (2010). The rural context and post-secondary school enrollment: An ecological systems approach. *Journal of Research in Rural Education*, 25(7), 10-46.

Dick, T. P., & Rallis, S. F. (1991). Factors and influences on high school students' career choices. *Journal for Research in Mathematics Education*, 22(4), 281-292.

Diemer, M. A. (2007). *The liberator potential of vocational psychology: The critical role of conscientization.* (Unpublished doctoral dissertation). Boston College.

Domenico, D. M., & Jones, K. H. (2007). Adolescent pregnancy in America: Causes and responses. *Journal for Vocational Special Needs Education*, 30(1), 4-12.

Dondo, M. (2006). *Guidance and counselling for schools and colleges.* Nairobi, Kenya: Christian Education Association Press



Doyle, C. A., & Gaeth, G. J. (1990). Assessing the institutional choice process of student-athletes. *Research Quarterly for Exercise and Sport*, 61(1), 85-92.

Dryler, H. (1998). Parental role models, gender and educational choice. *British Journal of Sociology*, 375-398.

Eremie, M. D., & Ibifari, B. (2018). Factors influencing students' career choice in secondary schools in Rivers State: Implication for career counselling. *International Journal of Innovative Education Research*, 6(4), 93-100.

Etikan, I., & Bala, K. (2017). Sampling and sampling methods. *Biometrics and Biostatistics International Journal*, 5(6), 31-49.

Ferster, C. B., & Skinner, B. F. (1957). *Schedules of reinforcement*. Appleton: Century-Crofts.

Fletcher, J. M. (2012). Similarity in peer college preferences: New evidence from Texas. *Social Science Research*, 41(2), 321-330.

Ford, M. E. (1992). *Motivating humans: Goals, emotions, and personal agency beliefs*. California: Sage.

Freeman, P., & Aspray, W. (1999). *The supply of information technology workers in United States*. Washington D.C: Computing Research Association.

Fruhen, L. S., Rossen, I., & Griffin, M. A. (2019). The factors shaping car drivers' attitudes towards cyclist and their impact on behaviour. *Accident Analysis & Prevention*, 123, 235-242.

Furnham, A., Eracleous, A., & Chamorro-Premuzic, T. (2009). Personality, motivation and job satisfaction: Hertzberg meets the big five. *Journal of Managerial Psychology*, 24(8), 765-779.

Gates, J. L. (2002). *Women's career influences in traditional and nontraditional fields*. Retrieved from <https://files.eric.ed.gov/fulltext/>

Gati, I., Kreuz, M., & Osipow, S. H. (1996). A taxonomy of difficulties in career decision making. *Journal of Counselling Psychology*, 43, 510-526.

Gensinde, B. (1993). *Social psychology in the 90s*. California: Brooks Cole.

Ghiselin, M. T. (2018). BF Skinner and the metaphysics of Darwinism. *Perspectives on Behaviour Science*, 41(1), 269-281.

Gleeson, L. M. (2001). Stimulation of human extravillous trophoblast migration by IGF-II is mediated by IGF type 2 receptor involving inhibitory G protein (s) and phosphorylation of MAPK. *The Journal of Clinical Endocrinology & Metabolism*, 86(8), 3665-3674.

Gofflich, H., & Moses, W. (2003). *Access to career guidance services: Participating research with Uganda adolescents*. Final Report and Working Paper.

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal Of Management Information Systems*, 18(1), 185-214.

Goldstein, J. S. (2003). *War and gender: How gender shapes the war system and vice versa*. Cambridge: Cambridge University Press.

Gostein, T. (2000). *Person-organization fit, job, choice decision and organizational*. New York: Joseph Rowntree Foundation Policy Press.

Gottfredson, I. S. (1981). Circumscription and compromise: A developmental theory of occupational aspirations. *Journal of Counseling Psychology*, 28(6), 545-579

Graham, J. W., & Smith, S. A. (2005). Gender differences in employment and earnings in science and engineering in the US. *Economics Of Education Review*, 24(3), 341-354.

Grates, J. A. (2002). *An NMR study on the bulk cationic copolymerization of trioxane with 1, 3-dioxepane*.

Gregory, S. (1998). *Issues in deaf education*. London: Routledge.

Hagger, M. S., Polet, J., & Lintunen, T. (2018). The reasoned action approach applied to health behaviour: Role of past behaviour and tests of some key moderators using meta-analytic structural equation modeling. *Social Science & Medicine*, 2(13), 85-94.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). A primer on partial least squares structural equation modeling. *Journal of the Academy of Marketing Science*, 45(5), 616-632.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152.

Halder, S., Roy, A., & Chakraborty, P. K. (2010). The influence of personality traits on information seeking behaviour of students. *Malaysian Journal of Library and Information Science*, 15(1), 41-53.



Harker, D., Slade, P., & Harker, M. (2001). Exploring the decision process of school leavers and mature students in university choice. *Journal of Marketing for Higher Education*, 11(2), 1-20.

Harris Management Solutions Ltd (2003). *Loose connections: A survey of student entry into technology sector tertiary education*. New Zealand: Trade and Enterprise.

Haynes, M. (1984). Patterns and perils of guessing in second language reading. *TESOL*, 83, 163-176.

Hemelt, S. W., Lenard, M. A., & Paepflow, C. G. (2019). Building bridges to life after high school: Contemporary career academies and student outcomes. *Economics of Education Review*, 68, 161-178.

Herfeld, C. (2018). From theories of human behaviour to rules of rational choice: tracing a normative turn at the Cowles Commission, 1943–54. *History of Political Economy*, 50(1), 1-48.

Hewitt, J. (2010). *Factors influencing career choice*. Retrieved from [www.ehow.com](http://www.ehow.com)

Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments*. New York: Psychological Assessment Resources.

Hooley, T. (2012). How the internet changed career: framing the relationship between career development and online technologies. *Journal of the National Institute for Career Education and Counselling*, 29(1), 3-12.

Hooley, T. (2013). *Career development in Canada*. Derby: International Centre for Guidance Studies.

Hossler, D., & Scalese-Love, P. (1989). Grounded meta-analysis: A guide for research synthesis. *The Review of Higher Education*, 13(1), 1-28.

Hossler, D., Braxton, J., & Coopersmith, G. (1989). Understanding student college choice. *Higher Education: Handbook of Theory and Research*, 5, 231-288.

Howard, M. M. (2002). *Student use of rankings in national magazines in the college decision-making process*. An unpublished doctoral dissertation, The University of Tennessee Knoxville.

Hoxby, C. M. (2004). *Achievement in charter schools and regular public schools in the United States: Understanding the differences*. Harvard: University Press.

Institute for Employment Studies (2003). *The drivers of employee engagement report 408*. Institute for Employment Studies, UK

Issa, A. O., & Nwalo, K. I. N. (2008). *Influence of age, gender, subject background and predisposing factors on the admission choice of undergraduates in Nigerian Liberian schools*. Retrieved on 3<sup>rd</sup> September, 2019 from <http://www.ajol.info/index.php/ict/article/view/32030>

Jackson, G. A. (1986). *Workable, comprehensive models of college choice: Final and technical report*. Retrieved from <https://files.eric.ed.gov>

James, D. J. (2006). *Mental health problems of prison and jail inmates*.

James, R. (2000). How school-leavers chose a preferred university course and possible effects on the quality of the school-university transition. *Journal of Institutional Research*, 9(1), 78-88.

James, R. (2001). *Understanding prospective student decision making in higher education and the implications for marketing strategies*. Melbourne: University Press.

James, R., Baldwin, G., & McInnis, C. (1999). *Which university? The factors influencing the choices of prospective undergraduates*. Canberra: Department of Education, Training and Youth Affairs.

Johnson, M. (2004). An investigation of the willingness of managerial employees to accept an expatriate assignment. *Journal of Organizational Behaviour*, 17, 267-284.

Jones, W. A., & Larke, A. (2001). Factors influencing career choice of African ethnic minorities in Agriculture. *NACTA Journal*, 47(3), 11-17

Kabil, N. S., Allam, G. G., & Abd El-Geleel, O. M. (2018). Motivational reasons for choosing dentistry as a professional career and factors affecting specialty choice among final year dental students. *Future Dental Journal*, 4(2), 308-313.

Kallio, R. E. (1995). Factors influencing the college choice decisions of graduate students. *Research in Higher Education*, 36(1), 109-124.

Kazi, A. S., & Akhlaq, A. (2017). Factors affecting students' career choice. *Journal of Research and Reflections in Education*, 11(2), 187-196.

Keller, M. J., & McKeown, M. P. (1984). *Factors contributing to the postsecondary enrollment decisions of Maryland national merit and national achievement semifinalists*. ASHE 1984 Annual Meeting Paper.

Kerka, S. (1997). *Popular education: Adult education for social change*. Retrieved from <https://digitalcommons.unomaha.edu/slcepartnerships>



Kern, C. W. K. (2000). College choice influences: Urban high school students respond. *Community College Journal of Research and Practice*, 24(6), 487-494.

King, S. H. (1993). Why did we choose teaching careers and what will enable us to stay? Insights from one cohort of the African American teaching pool. *The Journal of Negro Education*, 62(4), 475-492.

Kniveton, B. H. (2004). Influence and motives on which students base their choice of career. *Journal of Research in Education*, 72, 47-59

Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2<sup>nd</sup> ed.). New Delhi: New Age International Publishers.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610.

Kroll, A. M. (1970). *Career development: Growth and crisis*. New York: John Wiley & Sons.

Kutnick, P., Zhu, Z., Chan, C., Chan, R. Y. Y., Lee, B. P. Y., & Lai, V. K. W. (2018). Attitudes and aspirations regarding engineering among Chinese secondary school students: Comparisons between industrialising and post-industrial geo-engineering regions of Mainland China and Hong Kong. *Compare: A Journal of Comparative and International Education*, 48(4), 608-629.

Le Claire, K. A. (1988). Higher education choice in Australia: Processes and impediments. *Higher Education*, 17(3), 333-349.

Lemke, P., Ren, J., Alley, R. B., Allison, I., Carrasco, J., Flato, G., & Zhang, T. (2007). *Observations: Changes in snow, ice and frozen ground*.

Retrieved from <http://www.cambridge.org>

Lent, R. W., Miller, M. J., Smith, P. E., Watford, B. A., Hui, K., & Lim, R. H. (2015). Social cognitive model of adjustment to engineering majors:

Longitudinal test across gender and race/ethnicity. *Journal of Vocational Behaviour*, 86, 77-85.

Lillard, D., & Gerner, J. (1999). Getting to the Ivy league: How family composition affects college choice. *The Journal of Higher Education*, 70(6), 706-730.

Lilly, J., Armitage, A., & Thomas, H. (2000). *Educational choice at post 16*. Brentwood, Essex: Earlybrave Publications.

Looker, E. D., & Lowe, G. S. (2001). *Post-secondary access and student financial aid in Canada: Current knowledge and research gaps*. Canada: Canadian Policy Research Networks.

Lyle, D. S. (2007). Estimating and interpreting peer and role model effects from randomly assigned social groups at west point. *The Review of Economics and Statistics*, 89(2), 289-299.

Maani, S. A. (2000). *School leaving, labour supply and tertiary education choices of young adults: An economic analysis utilising the 1977-1995 Christchurch health and development surveys*. New Zealand: Treasury Working Paper.

Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A comparison of the theory of planned behaviour and the theory of reasoned action. *Personality and Social Psychology Bulletin*, 18(1), 3-9.

Management Study Guide (2013). *Reinforcement theory of motivation*.

Retrieved from <http://managementstudyguide.com/reinforcement-theory-motivation.htm>

Manski, C. F., & Wise, D. A. (2013). *College choice in America*. Harvard: Harvard University Press.

Martin, C. (1996). *Institutional research and student recruitment or how do institutions of higher education know what attracts students to their doors? Market research can help*. AIR 1996 Annual Forum Paper.

Martin, N. K., & Dixon, P. N. (1991). Factors influencing students' college

Martinez, P., & Munday, F. (1998). 9,000 voices: Student persistence and drop-out in further education. *FEDA Report*, 2(7), 7-16.

Mathay, W. L. (1989). Use of nickel stainless steels and high-nickel alloys in flue gas desulfurization systems in the United States. *Materials Performance*, 28(7), 90-113.

Maxwell, G., Cooper, M., & Biggs, N. (2000). *How people choose vocational education and training programs: Social, educational and personal influences on aspiration*. National Centre for Vocational Education Research.

Mberia, A., & Midigo, R. (2018). Understanding career choice dilemma in Kenya: Issues of informed choices and course availability. *Journal of Education and Practice*, 9(9), 35-42.

McCarthy, M. (2016). Parental choice of school by rural and remote parents. *Issues in Educational Research*, 26(1), 29-44.

McDonough, P. M. (1997). *Choosing colleges: How social class and schools structure opportunity*. New York: Sunny Press.



McInnis, C., James, R., & Hartley, R. (2000). *Trends in the first-year experience: In Australian universities*. Retrieved from <http://hdl.voced.edu.au>

McKenney, S., & Reeves, T. C. (2018). *Conducting educational design research*. London: Routledge.

McLeod, B. D. (2016). *Social learning theory*. Retrieved from <https://www.simplypsychology.org/bandura.html>

Michael, J. (1982). Skinner's elementary verbal relations: Some new categories. *The Analysis of Verbal Behaviour*, 1(1), 1-3.

Migunde, Q., & Kocung, E. (2011). Factors influencing career choice among secondary school in Kisumu Municipality. *Journal of Emerging Trends in Educational Research and Policy Studies*, 2, 3-8

Mihyeon, K. (2009). *The relationship between thinking style differences and career choice for high-achieving high school students*. Unpublished Doctoral Dissertation, University of Virginia, United States of America.

Ministry of Education (2004). *GES report on CSSPS*, Accra, Ghana: MoE.

Momsen, J. (2000). *Gender resource book for teachers*. Harare: UNICEP.

Montano, D. E., & Kasprzyk, D. (2015). Theory of reasoned action, theory of planned behaviour, and the integrated behavioural model. *Health Behaviour: Theory, Research and Practice*, 70(4), 231.

Moro, M. (2000). A journey worth traveling: Globalisation of counseling psychology. *The Counseling Psychologist*, 3(1), 412-419.

Mortimer, J. T. (2015). Social change and entry to adulthood. *Emerging Trends in the Social and Behavioural Sciences: An Interdisciplinary, Searchable and Linkable Resource*, 1-17.

Mutekwe, E., Modiba, M., & Maphosa, C. (2011). Factors affecting female students' career choices and aspirations: A Zimbabwean example.

*Journal of Social Sciences*, 29(2), 133-141.

Natalie, M. (2006). Factors influencing career choice among high school students in Tanzania. *Journal of Dental Education*, 64(6) 423-429.

National Centre for Education Statistics (2003). *Classification of Secondary School Courses*. Digest of Education Statistics, 2002

National Commission for Colleges of Education (1989). *National standards for NCE teacher education*. Abuja: NCCE.

National Commission for Colleges of Education (2012). *Minimum standards for vocational and technical education*. Abuja: Abuja NCCE.

Newton, D. A., Grayson, M. S., & Whitley, T. W. (1998). What predicts medical student career choice? *Journal of General Internal Medicine*, 13(3), 200-203.

Nguyen, A. N., & Taylor, J. (2003). Post-high school choices: New evidence from a multinomial logit model. *Journal of Population Economics*, 16(2), 287-306.

Nworgu, B. G. (2006). *Educational research: Basic issues and methodology*. Nsukka: University Trust Publishers.

Okeke, I. N. (2000). Characterization of *Escherichia coli* strains from cases of childhood diarrhea in provincial southwestern Nigeria. *Journal of clinical microbiology*, 38(1), 7-12.

Okobiah, O. C., & Okorodudu, R. I. (2004). *Issues, concepts, theories and techniques of guidance and counselling*. Benin City, Nigeria: Ethiope Publishing Corporation.

Okwulehie, M. E. C. (2018). Factors affecting career choice among senior secondary school students in Obio/Akpor local government area of Rivers State: Implication to counselling. *International Journal of Innovative Education Research*, 6(2), 27-39.

Olando, C. (2010). *Counselling needs of adults*. Lagos: Joy Press Ltd.

Olayinka, F. (2009). Choosing librarianship as a career: A study of public secondary school students in Ekiti State. *International Journal of Africa and African-American Studies*, 7(2), 1-8.

Omari, S. G. (2014). *Strategic factors that influence students' career choice in Kenyan Universities: A study of United States International University* (Doctoral dissertation, United States International University-Africa).

Ono, H. (2001). Who goes to college? Features of institutional tracking in Japanese higher education. *American Journal of Education*, 109(2), 161-195.

Onyekuru, B. U. (2015). Field dependence-field independence cognitive style, gender, career choice and academic achievement of secondary school students in Emohua local government area of Rivers State. *Journal of Education and Practice*, 6(10), 76-85.

Osipow, S. H. (2003). *The occupational psychological strain inventory*. Odessa, FL: Psychological Assessment Resources.



Osuala, E. O. (2005). *Research and statistics in nursing and related fields: A practical approach*. Nsukka: Rex Charles and Patrick Ltd.

Otuei, C. O. (2017). *Career decision-making difficulties of senior high school students in Koforidua Municipality* (Unpublished master's thesis). University of Cape Coast press.

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. London: Routledge.

Passafaro, P., Livi, S., & Kosic, A. (2019). Local norms and the theory of planned behaviour: Understanding the effects of spatial proximity on recycling intentions and self-reported behaviour. *Frontiers In Psychology, 10*, 744-760.

Paul, C., Modi P., & Patel, F. (2021). Is obesity associated with poorer outcomes in patients undergoing minimally invasive mitral valve surgery? *European Journal of Cardio-Thoracic Surgery, 59*(1), 187-191.

Payne, J. (2003). *Choice at the end of compulsory schooling: A research review*. Department for Education and Skills, *Research Report No 414*.

Peng, S. S., & Jaffe, J. (1979). Women who enter male-dominated fields of study in higher education. *American Educational Research Journal, 16*(3), 285-293.

Perera, J. & Velummayilum, P. (2008). Women's career choice and gender roles: A South Asian experience. *The Clinical Teacher, 5*, 186-190.

Perna, L. W. (2000). Differences in the decision to attend college among African Americans, Hispanics and Whites. *The Journal of Higher Education, 71*(2), 117-141.

Pintrich, P. R. (1999). The role of motivation in promoting and sustaining self-regulated learning. *International Journal of Educational Research*, 31(6), 459-470.

Pintrich, P. R., & Schrauben, B. (1992). Students' motivational beliefs and their cognitive engagement in classroom academic tasks. *Student Perceptions in the Classroom*, 7, 149-183.

Pintrich, P. R., Roeser, R. W., & De Groot, E. A. (1994). Classroom and individual differences in early adolescents' motivation and self-regulated learning. *The Journal of Early Adolescence*, 14(2), 139-161.

Pintrich, P., & Schunk, D. (1996). *Motivation in education: Theory, research, and applications*. Englewood Cliffs, NJ: Prentice Hall.

Porter, S. R., & Umbach, P. D. (2006). College major choice: An analysis of person environment fit. *Research in Higher Education*, 47(4), 429-449.

Raab, C., Baloglu, S., & Chen, Y. S. (2018). Restaurant managers' adoption of sustainable practices: An application of institutional theory and theory of planned behaviour. *Journal of Foodservice Business Research*, 21(2), 154-171.

Reay, D., Davies, J., David, M., & Ball, S. J. (2001). Choices of degree or degrees of choice? Class, race and the higher education choice process. *Sociology*, 35(4), 855-874.

Redmond, B., Quin, S., Devitt, C., & Archbold, J. (2011). *A qualitative investigation into the reasons why students exit from the first year of their programme and UCD*. Retrieved from <http://eprints.teaching>

Rhys D. (2003). *Dropping out: A study of Early Leavers from Higher Education*. Department for education and skill. Norwich

Roland, E., & Isdoe, T. (2001). Aggression and bullying. *Aggressive Behavior, 27*, 446-462.

Russell, J. A. (1980). A circumplex model of affect. *Journal of Personality and Social Psychology, 39*(6), 1161–1178.

Rutherford, A. (2017). BF Skinner and technology's nation: Technocracy, social engineering, and the good life in 20th-century America. *History of Psychology, 20*(3), 290–312.

Sacerdote, B. (2001). Peer effects with random assignment: Results for Dartmouth roommates. *The Quarterly Journal of Economics, 116*(2), 681-704.

Scandura, T. A., & Ragins, B. R. (1993). The effects of sex and gender role orientation on mentorship in male-dominated occupations. *Journal of Vocational Behaviour, 43*(3), 251-265.

Schaller, T. K., Patil, A., & Malhotra, N. K. (2015). Alternative techniques for assessing common method variance: An analysis of the theory of planned behaviour research. *Organizational Research Methods, 18*(2), 177-206.

Schmidt, J. H., & Rattenbury, K. L. (2018). An open-population distance sampling framework for assessing population dynamics in group-dwelling species. *Methods in Ecology and Evolution, 9*(4), 936-945.

Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist, 26*(4), 207-231.

Seacat, J. D., & Boileau, N. (2018). Demographic and community-level predictors of recycling behaviour: A statewide, assessment. *Journal of Environmental Psychology, 56*, 12-19.



Sharma, U., Aiello, P., Pace, E. M., Round, P., & Subban, P. (2018). In-service teachers' attitudes, concerns, efficacy and intentions to teach in inclusive classrooms: An international comparison of Australian and Italian teachers. *European Journal of Special Needs Education, 33*(3), 437-446.

Simon, H. A. (1972). Theories of bounded rationality. *Decision and Organization, 1*(1), 161-176.

Skaalvik, E. M., & Skaalvik, S. (2017). Motivated for teaching? Associations with school goal structure, teacher self-efficacy, job satisfaction and emotional exhaustion. *Teaching and Teacher Education, 67*, 152-160.

Skinner, B. F. (1963). Operant behaviour. *American Psychologist, 18*(8), 503.

Skinner, B. F. (2017). *Freedom and the control of men*. London: Routledge.

Skinner, B. F. (2019). *The behaviour of organisms: An experimental analysis*. BF Skinner Foundation.

Smith, P. L. (2000). The role of family context in a social cognitive model for career-related choice behaviour: A math and science perspective. *Journal of Vocational Behaviour, 57*(3), 348-364.

Souter, V. L., Turner, D. A. (2002). Correlation of ultrasound findings and biochemical markers in the second trimester of pregnancy in fetuses with trisomy 21. *Prenatal diagnosis, 22*(3), 175-182.

St. John, S. T. (1991). Mechanical instability of  $\alpha$ -quartz: A molecular dynamics study. *Physical review letters, 67*(25), 3559.

Stage, F. K., & Hossler, D. (1989). Differences in family influences on college attendance plans for male and female ninth graders. *Research in Higher Education, 30*(3), 301-315.

Stampoltzis, A., Tsitsou, E., & Papachristopoulos, G. (2018). Attitudes and intentions of Greek teachers towards teaching pupils with dyslexia: An application of the theory of planned behaviour. *Dyslexia*, 24(2), 128-139.

Steinmetz, H., Knappstein, M., Ajzen, I., Schmidt, P., & Kabst, R. (2016).

How effective are behaviour change interventions based on the theory of planned behaviour?. *Zeitschrift für Psychologie*, 224(3), 216-233.

Super D. E., Savicks, M. L., & Super, C. M. (1996). The life-span tactic to careers. In Brown, D, Brooks, L., and Associates (Eds.) *Career choice and development* (p. 131-188). San Francisco: Jossey-Bass.

Sussman, R., & Gifford, R. (2019). Causality in the theory of planned behaviour. *Personality and Social Psychology Bulletin*, 45(6), 920-933.

Taylor, J., Harris, M. B., & Taylor, S. (2004). Parents have their say about their college-age children's career decisions. *Nace Journal*, 64(2), 15-21.

Thurston, M., Smith, K., McLeod, J., & Eva, P. (2015). *Research informed service development: Counselling for sight loss overview*. Paper Presented at 21st Annual Counselling and Psychotherapy Research Conference: Understanding professional practice: the role of research.

Tillery, D. (1973). *Distribution and differentiation of youth: A study of transition from school to college*. New York: Ballinger Publishing Company.

Tobi, H., & Kampen, J. K. (2018). Research design: The methodology for interdisciplinary research framework. *Quality and Quantity*, 52(3), 1209-1225.

Trauth, E. M. (2002). Odd girl out: An individual differences perspective on women in the IT profession. *Information Technology and People*, 15(2), 98-118.

Tsitsia, B., Afenu, D., Kabbah, S., Attigah, A., & Bimpeh, G. (2021). Effective time management practices among colleges of education students. *Journal of Human Resource and Leadership*, 6(1), 1-10

Tulgan, B., & Martin, C. A. (2001). *Managing generation Y: Global citizens born in the late seventies and early eighties*. London: Human Resource Development.

Tumblin, R. S. (2002). *The college choice process of non-traditional students*. Unpublished doctoral dissertation, University of Toledo.

Uhlener, C. J. (2018). Social embeddedness and rational turnout. *The Oxford Handbook of Public Choice*, 1, 361-370.

Villanueva, J., Vultur, A., Lee, J. T., Somasundaram, R., Fukunaga-Kalabis, M., Cipolla, A. K., & Herlyn, M. (2010). Acquired resistance to BRAF inhibitors mediated by a RAF kinase switch in melanoma can be overcome by co targeting MEK and IGF-1R/PI3K. *Journal of Cancer Cell*, 18(6), 683-695.

Wagenaar, T. C. (1987). *Changes in postsecondary educational choices, 1972 to 1980*. London: The Center.

Walck, D., & Hensby, S. (2003). Career and degree choice at transition to university. *Australian Journal of Career Development*, 12(3), 64-71.



Wang, S., Lin, S., & Li, J. (2018). Exploring the effects of non-cognitive and emotional factors on household electricity saving behaviour. *Energy Policy, 115*, 171-180.

Whitley, S., & Neil, C. (1998). *Queensland year 12 students' experiences about post-school options: Are there equity issues*. In AARE Conference, Adelaide.

Wildman, M. L., & Torres, R. M. (2002). Factors influencing choice of major in agriculture. *NACTA Journal*, 4-9.

Wilson, C., Woolfson, L. M., & Durkin, K. (2018). The impact of explicit and implicit teacher beliefs on reports of inclusive teaching practices in Scotland. *International Journal of Inclusive Education, 26*(4), 378-396.

Yan, Z., & Sin, K. F. (2014). Inclusive education: teachers' intentions and behaviour analysed from the viewpoint of the theory of planned behaviour. *International Journal of Inclusive Education, 18*(1), 72-85.

Yorke, M. (1999). *Leaving early: Undergraduate non-completion in higher education*. London: Psychology Press.

Zemsky, R., & Oedel, P. (1983). *The structure of college choice*. Washington, DC: George Washington University Press.

Zimmerman, K., Bauer, T., & Loftstrom, M. (2000). Immigration policy: Assimilation of immigrants, evidence from 12 OECD countries. *Swedish Economic Policy Review, 7*(2), 11-53.

Zunker, G. Z. (1990). *Career counselling: A holistic approach* (7<sup>th</sup> ed). Belmont, CA: Brooks/Cole Publishing

## APPENDICES

### APPENDIX A

#### QUESTIONNAIRE

This questionnaire is designed to examine the perceived factors that influence career choice and choice of program of senior high school students in Ashanti

Mampong Municipality seeking admission into public tertiary institutions. The information is being sought through this medium for research purpose only.

You are kindly requested to read through the items and respond to them as honest and objective as possible. Every information provided shall be treated as confidential and private. Besides, your anonymity is assured.

Thank you.

#### Section A

##### Demographic characteristics

1. Age: \_\_\_\_\_  
Below 16 [ ]  
16-18 [ ]  
19 and above [ ]
2. Sex: Male [ ]  
Female [ ]
3. Highest level of education of parents:  
Basic education [ ]  
Secondary education [ ]  
Tertiary education [ ]
4. Occupation of parents:  
Security personnel [ ]  
Teacher [ ]  
Health worker [ ]  
Banker/finance personnel [ ]  
Vocational [ ]

Trader [ ]

Others .....

5. Place of residence:

Urban residential [ ]

Semi urban residential [ ]

Rural residential [ ]

6. What is your programme of study?

---

7. When did you decide on your program of study at the tertiary level?

Primary school [ ]

Junior high school [ ]

Senior high school [ ]

8. When did you make your mind to attend a tertiary institution?

Primary school [ ]

Junior High [ ]

Senior high [ ]

### SECTION B

*Please indicate ((√) ) the extent to which the following institutional factors will influence your career choices and programme of study at the public tertiary institutions. Strongly Agree (SA), Agree (A,) Disagree(D) and Strongly Disagree (SD)*

SN	Factor	Description	SA	A	D	SD
1	Good learning facilities	Availability of good and modern facilities for teaching and learning				
2	International support for programme	My programme of choice offers international opportunity for the future				
3	Popularity of institution	The name of the institution influenced my choice				
4	Influence of students	Contact with students offering my programme of interest				
5	Location of the institution	I prefer the location of the institution				



6	Support from institution	Students have good support from the institutional authorities				
7	Scholarship opportunities	There are scholarship opportunities for the programme within and from outside the institution.				
8	Accurate information	The accurate information available I had about the occupational opportunities will help me make a sound career choice.				
9	Influence of staff	Confident staff are always available to help students.				

**SECTION C**

*Please indicate (√) the extent to which the following environmental factors will influence your career choice and programme of study in public tertiary institutions. Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD)*

SN	Factor	Description	SA	A	D	SD
1	Availability of jobs	My career choice is in line with availability of job opportunities				
2	Prestige associated with the profession	I like the prestige that comes with the profession				
3	Self-employment	My current career choice will enable to be self-employed				
4	Family influence	The programme is in line with my family's interest				
5	Parents influence	My father influenced my career decision and academic programme.				
6	Parents influence	My mother influenced my career decision.				
7	Parents influence	My parents record of economic success influenced my career decision.				

8	Peer influence	I am interested in the programme because my friends are also interested in it				
9	Affordability	My parents can afford the cost of pursuing the programmes.				
10	Socio-economic status	My parents socio-economic status influenced my career decision and academic programme.				
11	Family experience	Adults and relatives wished it for me.				
12	Peer influence	My friends have greater influence on my career choice.				
13	Family experience	The success of my family members in their academic pursuit influenced my career choice.				
14	Peer influence	The achievement of my friends in their various courses influenced my decision to choose my programme of study at the tertiary level.				



**SECTION D**

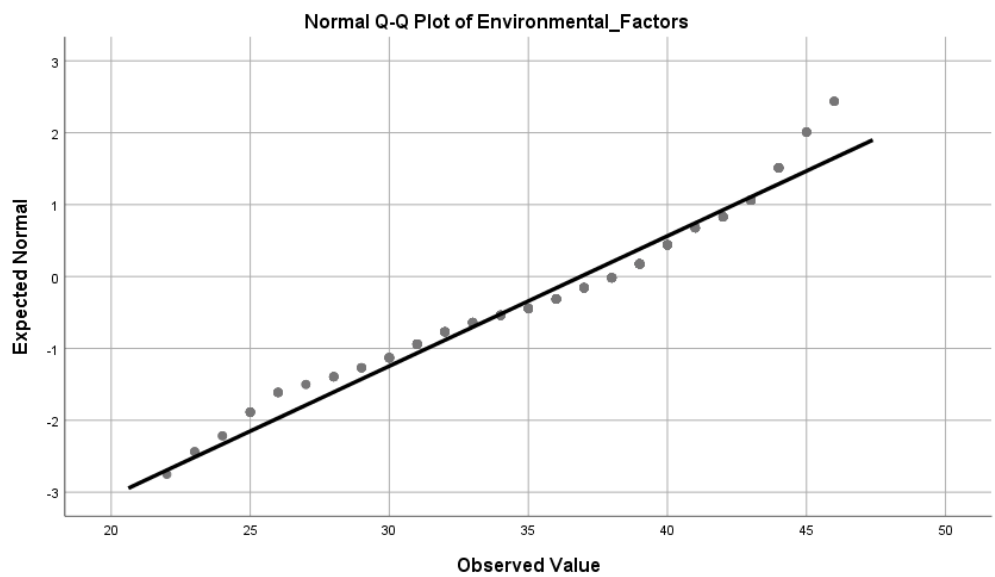
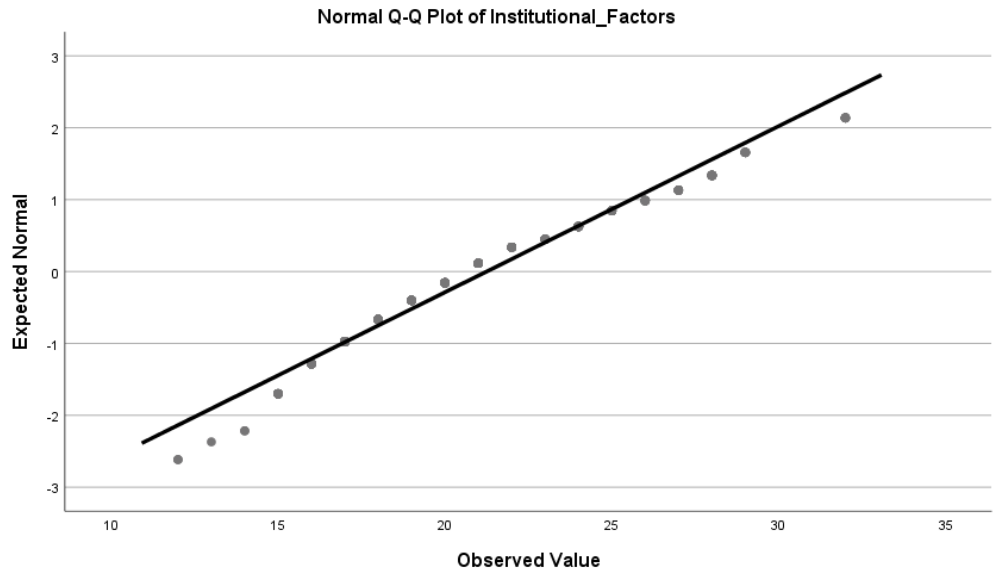
*Please indicate ((√ ) the extent to which the following personal characteristics will influence your career choice and programme of study in public tertiary institutions. Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD)*

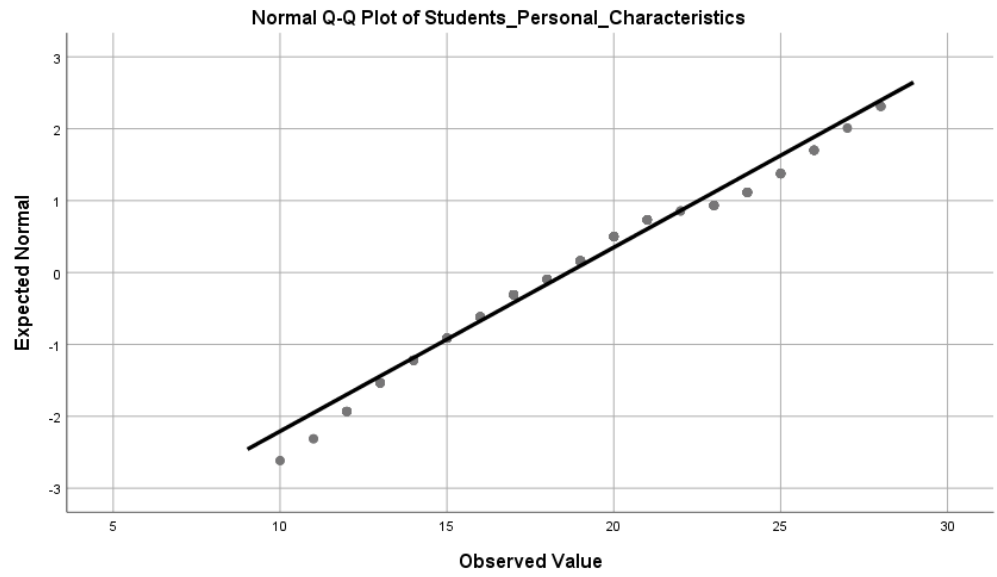
SN	Factor	Description	SA	A	D	SD
1	Career goals	Opportunity to major in area of interest				
2	Natural talents	Naturally I am very good at my programme of interest				
3	Career flexibility	I prefer careers that are very flexible				
4	Personal career goals	My current career choice is in line with my personal goals				
5	Personal values	My values and aspirations will influence my career choice				
6	Opportunity to apply skills and knowledge	My current career choices will help me to apply skills and knowledge				
7	Personal intellectual ability	My career choice will be driven by my intellectual skills and ability				
8	Personal sense of accomplishment	I want to feel a sense of accomplishment in my choice				
9	Personal interest	My personal interest will influence my choice of career and program				
10	Academic performance and influence on career choice	My excellent academic performance will influence my choice of programme and career				



## APPENDIX B

### EVIDENCE OF NORMALITY ASSUMPTION





## APPENDIX C

### LETTER OF INTRODUCTION

#### UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES

FACULTY OF EDUCATIONAL FOUNDATIONS

#### DEPARTMENT OF GUIDANCE AND COUNSELLING

Telephone: 0332091854  
Email: [dgc@ucc.edu.gh](mailto:dgc@ucc.edu.gh)



UNIVERSITY POST OFFICE  
CAPE COAST, GHANA

Our Ref: DGC/L.2/Vol.1/ 131

29<sup>th</sup> September, 2020

Your Ref:

TO WHOM IT MAY CONCERN

#### LETTER OF INTRODUCTION

We introduce to you, Joseph Dawson-Ahmoah a student pursuing an M.Phil Programme in Guidance and Counselling at the Department of Guidance and Counselling of the University of Cape Coast. As a requirement, he is to submit a Thesis on the topic: "*Factors Influencing Career and Programme Choices Among SHS Students in Ashanti Mampong Municipality, Ghana*". We are by this letter affirming that, the information he will obtain from your Institution will be solely used for academic purposes.

We would be most grateful if you could provide him the necessary assistance.

Thank you.

A handwritten signature in blue ink, appearing to read 'Stephen Doh Fia'.

Dr. Stephen Doh Fia  
HEAD OF DEPARTMENT



## APPENDIX D

### ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST  
COLLEGE OF EDUCATION STUDIES  
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE  
CAPE COAST, GHANA

Our Ref: CES-ERB/ucc.edu.gh/15/21-01      Date: 5th January, 2021

Your Ref: .....

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

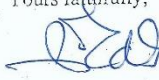
The bearer, Joseph Dawson Ahmah, Reg. No. FF 1607.118.10097 is an M.Phil. / ~~Ph.D.~~ student in the Department of Guidance and Counselling..... in the College of Education Studies, University of Cape Coast, Cape Coast, Ghana. He / ~~She~~ wishes to undertake a research study on the topic:

Factors influencing career and programme choices among Senior High School students in Asanti Mampong Municipality, Ghana.....

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)

*Chairman, CES-ERB*  
Prof. J. A. Quotosho  
[jquotosho@ucc.edu.gh](mailto:jquotosho@ucc.edu.gh)  
0243784739

*Vice-Chairman, CES-ERB*  
Prof. K. Edjah  
[kedjah@ucc.edu.gh](mailto:kedjah@ucc.edu.gh)  
0244742357

*Secretary, CES-ERB*  
Prof. Linda Dzama Forde  
[lforde@ucc.edu.gh](mailto:lforde@ucc.edu.gh)  
0244786690