INFLUENCE OF ACADEMIC PERFORMANCE IN AGRICULTURE ON CHOICE OF VOCATIONAL AGRICULTURE AS STUDENTS' FUTURE CAREER IN COLLEGES OF EDUCATION IN NORTH-CENTRAL ZONE, NIGERIA

BY

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A THESIS SUBMITTED TO THE POSTGRADUATE SCHOOL, AHMADU BELLO UNIVERSITY, ZARIA NIGERIA

IN PARTIAL FULFILMENT FOR THE AWARD OF MASTERS OF SCIENCE DEGREE IN AGRICULTURAL EDUCATION

DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION, FACULTY OF EDUCATION, AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA

JUNE, 2015

DECLARATION

I hereby declare that this Thesis titled "**Influence of Academic Performance in Agricultural Science on the Choice of Vocational Agriculture as a Future Career by Students in Colleges of Education in North-Central Zone in Nigeria"** was written by me in the Department of Vocational and Technical Education under the Supervision of Dr D.O. Oni and Dr. B.I. Okeh. The information derived from the literature has been duly acknowledged in text and a list of references provided. There is no part of this work that has been presented for another degree or diploma at any institution.

_____ _____

Sunday ZHIRIN Date

CERTIFICATION

This thesis titled INFLUENCE OF ACADEMIC PERFORMANCE IN AGRICULTURAL SCIENCE ON THE CHOICE OF VOCATIONAL AGRICULTURE AS A FUTURE CAREER BY STUDENTS IN COLLEGES OF EDUCATION IN NORTH-CENTRAL ZONE IN NIGERIA by Sunday ZHIRIN meets the regulation governing the award of the degree of Masters of Science in Agricultural Education of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This work is dedicated to my loving, caring and understanding wife Doris Chia Zhirin. She took her time with so much zeal and commitment to type the manuscript of this work.

ACKNOWLEDGEMENTS

Unto God be all praises and honour for what He had done and is doing as touching my life. Researcher thanks Jesus, who is the inspirer, author and finisher of this work. Researcher will like to specially thank Dr D. O. Oni for his tireless, immense and very rich inputs in the course of this work. He is my teacher, father and supervisor. Researcher will not forget to express his profound gratitude to Dr B. I. Okeh a member of supervisory committee for his patience and diligence for guiding him at every stage of the work. Researcher expresses his deep appreciation to the Head of Department Prof A. A. Udoh for his useful and constructive criticisms on the work, which had refined the writing. Researcher also gives thanks to his Internal Examiners (Dr M.R Ayorinde and Dr A.R Ammor) for their valuable and indispensable contributions on this work. Researcher is grateful to research assistants: Mallam Abdufatah Alao who covered Kwara State, Mr Amos Philemon who covered Plateau State, Bro. Abraham Shuaibu who covered Nassarawa State, Mr Akumave and Gabriel Oten who covered Benue State, Mr Samuel Angulu who covered Niger State, and Miss Igonnoh Naomi who covered Kogi State. Researcher remembers Bro Justine Thomas for reading and arranging this work to be what it is today.

My appreciation goes to my wife for standing by me spiritually, emotionally, physically, and financially to see that the work is finished in good time. Researcher also thank God for Grace Mimi Zhirin, the beginning of my might who is part of the success God is bringing. Researcher also expresses his profound thanks to his mother who is always praying for me; Mr &Mrs James Yisa and family, Dr & Mrs Emmanuel Gana, Prof & Mrs F. D. Kolo, Dr & Dr (Mrs) Ahmed, Mr & Mrs Joshua Kolo, Mr & Mrs Adams Ndace and many

others for which time and space did not allow me to mention their names for their help and supports in the course of this work.

ABSTRACT

This study was carried out to investigate the influence of academic performance in agricultural science on the choice of vocational agriculture as a future career by students in colleges of education in North-Central Zone of Nigeria. The study made use of survey research design. Four hundred and sixty-two students were the target population who also served as samples for the study across the six states of North-Central Zone in Nigeria. Three research questions and three Null-Hypotheses were formulated. The instrument used for data collection was a questionnaire. The method of data analysis was by frequency counts, and percentages. Regression Analysis and Pearson product moment correlation (PPMC) statistics were used to test all the three null-hypotheses at 0.05 level of significance. Results of the null-hypotheses showed that Null hypotheses one two and three were rejected. Among the findings of the study were: choice of future career in vocational agriculture was tied to academic performance in agriculture. Low academic performance had a strong but negative influence on choice of vocational agriculture as future career. High academic performance had strong and positive influence on choice of career in vocational agriculture. It was concluded that academic performance in agriculture was major predictor for choosing vocational agriculture as a future career. Low academic performance in agriculture was a hindrance to the choice of vocational agriculture as a future career. Students that chose vocational agriculture were less in number than those students who did not choose vocational agriculture as future career. The following recommendations were made: Career guidance enlightenment campaign should be inaugurated by the college and run by agricultural education department to organise orientation, seminars, symposium, career week and others; college authority in conjunction with lecturers should encourage hard work by rewarding students having CGPA above minimum yearly with automatic accommodation in the college, laptops and many other tangible items.

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OPERATIONAL DEFINITION OF TERMS

Vocational Agriculture: This word is used synonymously with Agricultural Education. . Agricultural education is instruction about crop production, livestock management, soil and water conservation, and various other aspects of agriculture (Olamie, 2012).

North-Central: Is one of Northern geographical zones, comprising of Niger, Kwara, Kogi, Nassarawa, Plateau, and Benue states.

Careerist in Agriculture: This is someone who considers his/her career in agriculture to be more important than anything else.

Low Academic Performance: Is a CGPA of less than 2.5, which is from 1.00 – 2.44.

High Academic Performance: Is a CGPA of 2.5 and above, that is from 2.50 -5.00

LIST OF ABBREVIATIONS

C.O.E: College Of Education

C.G.P.A: Cumulative Grade Point Average

NCE: Nigeria Certificate in Education.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Vocational and technical education is a practical based and job career skill instruction. It is any kind of education which has the main purpose of preparing individuals for employment in recognized occupation (Kennedy, 2011). The foundation of Vocational Technical Education (VTE) was based on philosophy which was mainly established for self-employment and self-reliance of individuals who partake in it (Kennedy, 2011).Vocational technical education has remained a subordinate discipline in terms of societal recognition, adequate funding and parental/children choice (Kennedy, 2011). As such, a variety of components fall under the vocational education discipline, such as agricultural education, business education, family and consumer sciences, health occupations education, market education, technical education, technology education and trade and industrial education (Benson, 1997). People within the sphere of VTE must embrace and be proud of what they are doing in spite of societal perspective to debunk any wrong notion.

Agricultural science is the study of the relationship between soils, plants and animals in the production and processing of food, fibre, fuel and any other agricultural commodities that have an economic, aesthetic or cultural value (South Africa Qualification Authority, 2003). It is an integrated science that combines the knowledge and skills from physical life, social, and earth sciences, engineering, mathematics and economics (South Africa Qualification Authority, 2003). Agricultural science aims at developing the following skills: investigate and analyse sustainable agricultural practices, indigenous agricultural knowledge and historical development, and interrelated issues in agriculture (South Africa Qualification

Authority, 2003). Oberle and Keeney (1990) stated that, "agricultural science is a complex and multidisciplinary field that represents the vital link between human (socioeconomic) systems and the natural environment." In a nut shell agricultural science is a science and art of plant and animal production to uplift the standard of living of people and society.

Agricultural education as a branch of VTE is therefore haunted by the same challenges of vocational education in not fulfilling the objectives it was designed to carry out. Agricultural education is instruction about crop production, livestock management, soil and water conservation, and various other aspects of agriculture (Olamie, 2012). The most important function of Agricultural education is to prepare youths and adults for careers in Agricultural education (Wright, 2012). The ever increasing population in many developing countries, Nigeria inclusive, has led to acute food shortages in spite of available rich agricultural resources. Realising the problems of food shortage government of most of the countries in Africa have embarked on agricultural education programmes (Olaitan, 1984). The essence of this is to educate Nigerians on how to maximise the rich agricultural resources.

The rapid growth of agricultural education began during the late 19th` century. In 1862, the United States Congress created the Department of Agriculture to gather and distribute agricultural information. The Morrill Act, which provided the land-grant schools, became law that same year (1862). The Hatch Act of 1887 gave federal funds to establish agricultural experiment stations. The first dairy school in the United States was created at the University of Wisconsin, Madison in 1890. Government support for agricultural education increased during the 20th century. For example, the Smith-Lever Act of 1914 created what is now the Cooperative Extension System (1988). The Smith-Hughes Act of 1917 and the George-Barden Act of 1946 financed high-school instruction in farming. Woodlawn High School (Woodlawn, Virginia) was the first public high school in the United States of America to

offer Agricultural Education classes under the Smith-Hughes Act of 1917. The Vocational Education Act of 1963 funded training in other fields of agriculture. Agricultural science and education expanded after 1900 in response to a need for more technical knowledge and skill. This development led to the use of modern farming methods that require fewer farm workers. Another major result of this change was the creation of larger farms and ranches. This development increased the need for more agriculture science and education (an excerpt from Olamie, 2012). In early 20th century the British Colonial Government got committed to the task of improving agricultural resources in Nigeria by carrying out a range of research studies on crops, training of agricultural staff needed for research and extension. This commitment led to the establishment of the then five schools of agriculture in Nigeria between 1920 and 1960.

The academic performance is active rather than passive acquisition. Olamie (2012) defines academic performance as how students deal with their studies and how they cope with or accomplish different tasks given to them by teachers. Academic performance is the ability to study and remember facts and being able to communicate the knowledge verbally or in writing down on papers (http://www.google.jan2012). A sound education can give students greater career opportunities and prepare them to make significant contribution in the chosen field (Ning-Kuang et al., 2009) Academic performance is a critical determining factor for student to exploit career choices in their fields of endeavour. Academic performance is also applicable to determine students' ability in exploiting career choices in agricultural education in the North- Central and Nigeria as a whole.

Esters and Bowen (2005) show that parents or guardians and friends are the primary individuals who influence students choice of a career in agricultural education, although mother or female guardian are the most influential. From the findings of Esters and Bowen

(2008), on student academic performance, parents and friends can influence their choice in what decision to make of career options available either within or outside agricultural education. Therefore, low or high academic performance can inform or influence the choice of a career directly or even indirectly by second parties (parents, friends and siblings etc) Low or high academic performance can be proven by the work of Adewumi in 2011, who stated that "Reports of WAEC and NECO in 2010 showed that of the over 1.2 million candidates that sat for the SSCE and NECO examinations, the percentage of candidates who obtained a minimum of credit pass (C6) in at least five subjects including English language and Mathematics over the past few years in SSCE had been below 30% average nationwide." As such, choice of agricultural education as career whose requirements include English and Mathematics would be affected. So also students who had got in to studying vocational agriculture are faced with challenge of mathematics, physics and chemistry related courses in their course of study.

Career can be defined as jobs and actions taken by a person throughout a lifetime, especially those related to that person's occupations. A career is often composed of the jobs held, titles earned and work accomplished (http://www.Dictionary.Com, 2012; http://www.google). Career is seen as the sum total of paid and unpaid work, learning and life roles an individual undertakes throughout life. The term 'career' was traditionally associated with paid employment and referred to a single occupation. In today's world of work the term 'career' is seen as a continuous process of learning and development (http://www.google.Myfuture, 2012). Patton and Mcmahon (2001) views career as the sequence and variety of occupations (paid and unpaid) which one undertakes throughout a lifetime. More broadly, 'career ' includes life roles, leisure activities, learning and work.

Patton and Mcmahon (2001) also report that when developing and presenting career education programs it is important to be aware of the context in which career development and career decision-making occur. Career decision-making is not simply matching a person to an occupation. There are many influences that impact on a person's career decisions. Career in life is only possible through preparation and training. Future career in vocational agriculture is provided through agricultural education training, a body responsible for producing future careerists. Agricultural educational training is to play a main role by providing a strong background to produce efficient farmers, researchers, educators, extension staff, agri-business professionals and others needed to achieve sustainable agricultural development (Kidane and Worth, 2012). Choosing a career therefore, is a function of training, exposure, information and interest of the students.

Colleges of agriculture and schools of agricultural education prepare students for careers in all aspects of food and agricultural systems. Some career choices include food science, veterinary science, farming, ranching, teaching, marketing, agricultural communication, management, and services. The Association for Career and Technical Education (ACTE) South Africa, the largest National Education Association dedicated to the advancement of education that prepares youths and adults for careers, provides resources for agricultural education (Olamie, 2012). Choosing a career is challenging especially in vocational agriculture when student has a faint knowledge of what career is, available career options and deficient training resulting in poor academic performance. Therefore, training is the backbone to choosing career in agricultural education which is measured by performance.

Education is the most valuable legacy a nation can give to her citizens especially youths. The major purpose of any educational system is to prepare people to lead personal fulfilling and responsible lives and contribute meaningfully to the development of their society (Uzochi,

2011). People can only lead personal fulfilling and responsible lives by making appropriate career choices to make the training feasible in their various fields of endeavour. Career in agricultural education is the only riches one can call his/her own (Wright, 2012). Goecker, Whatley, Gilmore (1999) find that career in agriculture and related fields is expected to increase through 2010 in America. Jones (1999) reported, "The number of students pursuing agricultural careers had been declining since 1970s." Likewise Zoldoske (1996) asserted, "There is an overall decline in the number of students pursuing agricultural careers through a college education." Olaitan (1984) opines that Nigeria youths prefer white collar jobs to a career in agriculture, which is considered a dirty job. Zoldoske (1996) further states that, "nearly one-third of all agricultural job opportunities will be filled by individuals trained outside of agriculture." Not only are problems of initial entry into agricultural careers an issue, but problems related to individuals who exit agricultural-related occupations has been the focus of recent research (Ester and Bowen, 2005).

1.2 Statement of the Problem

The researcher through observations and interaction with graduates from study area discovered that, many students could not pursue a career in vocational agriculture. Some of these students ended up in Library and information Science, guidance and counselling and other education related subjects. Students in the study area have a general idea that, vocational agriculture is all about producing vocational agricultural teachers. This is not so as seen in the work of Ferrum College, Virginia in 2012; which gave career paths in vocational agriculture to include: soil conservationist, vocational agricultural teacher, extension agent, farmer/manager, agricultural scientists, sale representative, commercial loan officer and others.

The students found it difficult to pursue vocational agriculture in the study area. The underlying reason for this awkward situation is the reason behind desperate search for answer on this stated problem of students' unwilling attitude to pursue vocational agriculture beyond NCE level. . Jones (1999) reports that, "The number of students pursuing agricultural careers had been declining since 1970s." Likewise Zoldoske (1996) asserts that, "There is an overall decline in the number of students pursuing agricultural careers through a college education."

It is in the light of these observations; interaction and reviewed literature that this study was initiated to examine the influence of academic performance in agricultural science on the choice of vocational agriculture as future career of students in colleges of education in North-Central States in Nigeria.

1.3 Objectives of the Study

The objectives were to:

1. Determine the influence of academic performance of final year students in agricultural science on choice of vocational agriculture as a future career of colleges of education in North-Central in Nigeria.
2. Determine the influence of low academic performance on choice of vocational agriculture as a future career.
3. Compare the students who chose career in vocational agriculture and those who did not choose vocational agriculture as a future career.

1.4 Research Questions

Research Questions were put forward to answer the following questions:

1. What is the influence of academic performance of final year students in Agricultural Science on choice of vocational agriculture as a future career in North- Central Zones in Nigeria?
2. What is the influence of low academic performance of students on their choice of vocational Agriculture as future career?
3. What are the students who chose vocational agriculture and those who did not choose vocational agriculture as future career?

1.5 Research Hypotheses

The following Null-Hypotheses were formulated or stated and tested.

1. There is no significant influence between Academic performance of students in Agricultural Science and choice of Vocational Agriculture as a future career at NCE level in Colleges of Education in North- Central Zone in Nigeria.
2. There is no significant influence between the students with low academic performance in Agricultural Science and choice of vocational agriculture as future career.
3. There is no significant relationship between students who chose vocational agriculture and those who did not choose vocational agriculture as future careers.

1.6 Significance of the Study

The result of this research will be of importance to curriculum planners and programme planners of Vocational Agriculture in making suitable and appropriate decision on careers in

agricultural education. This study will help the teachers of Agriculture towards effective handling of the students for better Academic performance to enhance their choice of career. The study will assist the students to see and exploit available career options in Vocational Agriculture. The study will help to prepare the students to see Agricultural Education beyond classroom activities. The outcome of the research will help the students to discover themselves and their environments, and their roles to make their world a better place. The study will be of immense help to the students to see why they fail and how to handle the academic challenges around them. The research will create awareness and enlightenment on appropriating various career options to choose for life in Agricultural science. The study, through discovery and awareness that will be created by the researcher during the data collection procedure shall bring about sense of fulfilment in the students in what they are doing right now, which is a stepping stone for their future vocation. The research also will train, equip and develop the researcher for the further future research studies.

1.7 Basic Assumptions of the Study

For the purpose of this study, it was assumed that:

1. Academic performance in agricultural education is a major predictor for choice of vocational agriculture as a future career.
2. low academic performance is the reason why choice of career in Agricultural education is difficult among the students of Colleges of Education in North- Central zones in Nigeria
3. Students who chose vocational agriculture are less in number than those who did not choose vocational agriculture as future career.

1.8 Delimitation of the study

This research work was delimited to the six states namely Niger, Nassarawa, Kwara, Plateau, Kogi and Benue states of North- Central Zone in Nigeria, because these are the six states that make up the North-Central Zone. The research study was further delimited to NCE III Agricultural students of 2013/2014 Academic session, because only NCE III can have a steady cumulative grade point average from their courses of study. The study was delimited to six Colleges of Education out of twelve colleges available in the six states North-Central of Nigeria. The researcher chose six colleges using purposive sampling, because of the large population of all NCE III in all twelve Colleges of Education in North-Central Zones.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This research work reviewed relevant materials under the following sub-headings

2.1 Theoretical Framework

2.2 Concept of Academic performance

2.3 Concept and Historical Background of Agricultural Education

2.4 Factors affecting student's performance in Vocational Agricultural training

2.5 Career Concepts and options in Vocational Agriculture

2.6 Empirical Studies

2.7 Summary of Reviewed Literature

2.1 Theoretical Framework

The research looked at Theories of Academic performance and Theories of career choice.

Academic Performance Theories

Performance, as the adage goes, is a "journey not a destination." The location in the journey is labelled as "level of performance' (Elger, 2010). Thelma (2014) reports Pre-study theory, in his study "variables associated with Academic achievement of African males in four-year undergraduate educational institutions". Thelma used the idea of Astin (1982) to develop, the pre-study theory "Thelma argued that retention and academic achievement are dependent on

a combination of variables such as personal institutional and demographic variables". Thelma said that these three categories of variables are the intellectual bins of pre-study theory.

Another theory is that formulated by Covington (2012) in his book *Goal Theory, Motivation and School Achievement*, called "Achievement Goal Theory." According to Covington the basic contention of achievement goal theory is that depending on their subjective purposes, achievement goals differently influence school achievement. Covington put forward specific hypothesis as achievement goal theorist which is in twofold: first, that learning goals favour deep-level, strategic-processing of information, which in turn leads to increased school achievement; and second, that performance goals trigger superficial, rote-level processing that extends a stultifying influence on achievement.

The researcher for the sake of this work used Covington theory of academic achievement or performance. The theory deals with cognitive self-regulation which allows students to express themselves while being actively involved in learning. This theory is ideal for this study, because poor academic performance in agricultural education is largely based on classroom learning rather than practical. For students to perform academically they must be actively engaged in learning inside and outside the classroom. The researcher also did not completely discard pre-study theory of academic performance which says that "academic performance can be successful when personal variable institutional variable and demographic variables are positive."

Theories of Career Choices:

a) John Holland**:** Theory is a dynamic company with an entrepreneurial spirit. WoodCock (2014) mentioned John Holland's theory of career choice as one of the career theories. He is

an American scientist and a psychology professor at university of Michigan. The theory is summarized in six statements:

1. In our culture, most people are of six personality types: realistic (the Doers) investigative (the thinkers), Enterprising (the persuaders), and conventional (the organizer).
2. People with the same personality types work well together and reward behaviour that supports that personality type.
3. There are six types of work environment realistic, investigative, artistic, social, enterprising and conventional.
4. People seek environment that match their skills and abilities and express their values and attitudes.
5. People who work in environments that match their personality type are likely to be successful and satisfied.
6. Your work place (or school) has an effect on how you act or work and how comfortable you are in that environment.

b) Parson' Theory: The Frank Parson's theory was documented by Wood Cock in 2014 in the book titled "Theories of career choice". According to Him Parson's Theory is the most common advocated theory by career advisers. Wood Cock said that the Parson theory is a theory in which you analyse your skills, values, interests, and personality and then match them up to jobs which use them. The theory speculates that every skill acquired is never a waste; there are careers in dire need of such skill to break out on a lime light. So long the required skill has not met with ideal career, there would not be results nor performance.

c) Happenstance Theory: The happenstance theory says that luck plays a major part; unpredicted social factors, chance events and environmental factors are important influences on graduates' lives. In recession, graduate often start in a routine job which suites then better using the skills they have gained (an excerpt from Wood Cock, 2004).

d) Bandura' theory: Durie (1982), he made mention of Albert Bandura as one who is well regarded for his social cognitive theory. A learning theory based on the ideas that people learn by watching what others do, and that human thought processes are central to understand personality. This theory provides a framework for understanding, predicting and changing human behaviour.

e) Krumboltz' Theory: John Krumboltz is an established career theorist. The theory is known as theory of indecision in career world. His most recent developed idea about supporting indecision in clients is that, indecision is desirable and sensible, as it follows the opportunity for clients to benefit from unplanned events (an excerpt from Durie, 1982).

f) Super's Story**:** One of Donald super's greatest contribution to career development has been his emphasis on the importance of the development of self- concept. According to Super, self-concept changes over time and develops as a result of experience. As such, career development is lifelong (Durie, 1982).

The researcher strongly agrees with theory of John Holland. The theory shall be used in this study the reasons are: everyone belongs to one of the personality traits Holland gave; people can only be successful and satisfied when they are allowed to express themselves and that everyone is influenced by his /her work place on how he or she works, acts, and how comfortable one is. In addition if the right environment is not there to express skills, abilities

values and many others, no single individual can last in that career even with excellent performance.

2.2 Concept of Academic Performance

The Oxford Advanced Learners Dictionary defines performance as how well or how badly one does something. Also, it has been defined thus: "Academic performance refers to how students cope with their studies and how they cope with or accomplish different tasks given to them by their teachers" (http://www.google.olamie, 2012). Academic Performance is the ability to study and remember facts and being able to communicate the knowledge verbally or down on paper (http://www.googole.jam, 2012). A nation's strength largely depends on the quantity and quality of her human resources, and education is the pivot upon which development rotates (Eyo, 2012). Eyo's observation is true because, quality and quantity of human resources are possible via excellent academic performance. In realizing the Nigerian vision of becoming one of the top twenty (20) economically developed countries of the world by 2020, Nigeria must produce world class manpower, possible only through world class tertiary institutions (Federal Ministry of Education Position Paper, 2008). This assertion is accepted by the researcher reviewing this work because input in education determines the obtainable output. As such quality education of high academic performance is realisable through quality educational investment. This is in line with the view of Jega (2010) reports that "good funding is a very important requirement in human capital development." Kolo (2012) advances the following Academic challenging factors resulting to poor performance:

i. Poor preparation of students from lower levels of the education system. Kolo opined that "both our private and public secondary schools these days are teaching and

students are learning only for examination purposes. Course contents of subjects are no longer taught for the basic aim of wide knowledge and understanding.

ii. Fear of the future outside the institutional system: Kolo (2012) says, "Poor performance is increasing because there is an increasing fear in the students that graduating and going out exposes them the more to dangers such as lack of employment that is taking over the life of the graduates. They feel the security against the unemployment syndrome is to remain within the Academic system. This means the students are unwilling to graduate and keeps incurring loads of carry overs.

iii. Lack of effective guidance services in the system: According to Kolo (2012) Academic institutions do not give adequate attention to the counselling needs of the students. This agrees with Lawal (2010) who identified the counselling needs of university students to include: (1) general problems (2) personal finances, (3) relating with others, and (4) health and living conditions. If these needs are not met the performance becomes hampered.

iv. The current educational policy. Kolo (2012) explained, "In our bid to develop rapidly, the nation decided to delete from the system the step gap of two years after secondary education to acquire a level paper to enter university. Now the qualification for university admission is just five (5) credits and a stipulated score from University Matriculation Exams (UME). For years, these two criteria for admission have been abused and manipulated by parents, teachers, students and even examination bodies. The question then, is, should we continue with a policy that is not working for our good as a nation?

Kolo (2012) points out other challenges that contribute to students poor performances to include:

i. Parental neglect or over pampering of their children, wards in the tertiary institutions
ii. Population explosion
iii. Inadequacy of lecturers in terms of quantity and quality
iv. Outdated curricula content and programmes.

Kolo (2012) provides the way forward to the identified challenges which include:

a. Returning to the previous structure of 6-5-2- to which was before 6-3-3-4
b. Adequate investment is the issue government needs to address seriously.
c. Establishment of functional psychological services which must be intensive and effective. To crown it all, if proficient academic performance must be realised we need an educational system that:
d. Provides access to quality education for all regardless of gender, ethnic social background and geographical location.
e. Develops the individual into a sound and effective citizen.
f. Identifies, develops and responds to individual needs, talents and aspirations
g. Is relevant to the 21st century and the needs of the Nigerian economy
h. Benefits from, and inculcates the value of technology while being efficient and effective in its delivery (Eyo, 2012). Researcher agrees with the fact that every nation depends on the quality of human resources than that of natural resources, and quality of human resource comes through academic performance in teaching and learning situation.

2.3 Historical Background of Agricultural Education

Agricultural Education is any form of formal training and education in agriculture (Olaitan, 1984). Agricultural education encompasses the study of applied sciences for example

biology, chemistry, physics, and business management principles (Barrick, 1989). Agricultural education goes beyond knowledge and skills development in that students are able to develop an understanding of : (1) significance of agriculture in a global society, and the United States society in particular, through the application of scientific and business principles and problem solving strategies; and (2) the interdependency and relationships between the agricultural industry and other significant business interwoven with the entire economic and social structure of the community, state, nation and world (McCraken, 1983)

The study of agricultural education focuses on the needs of individuals and groups and in developing individually satisfying and socially responsible knowledge, skills, and occupation values. It focuses but not limited to study in horticulture, forestry, soil conservation, natural resources, agricultural products and processing, production of food and fibre, aquaculture and other agricultural products, mechanics, sales and services, economics marketing and leadership development (Williams, 1991). History of agricultural education in United States of America began during the late 19th century in 1862, the United States Congress created the Department of Agriculture to gather and distribute agricultural information. The Morrill Act of 1862, which provided the Land Grant Schools, became law that same year. The Hatch Act of 1987 gave federal funds to establish agricultural experiment stations.

The first dairy school in the United States of America was established at the University of Wisconsin - Madison in 1890; Government support for agricultural education has increased during the 20th century. For example, the Smith – Level Act of 1914 created what is now the Corporative Extension System (1988). The Smith-Hughes Act of 1917 and the George-Barden Act of 1946 financed high-school instructions in farming. Woodlawn High schools, Virginia was the first public high school in the United States of America to offer agricultural education Act of 1963 funded training in other fields of agriculture. Agricultural science and

education expanded after 1900 in response to a need for more technical knowledge and skill. This development led to the use of modern farming methods that required fewer workers. Another major result of this change was the creation of larger farms and ranches. This development increased the need for more agricultural science and education (Olamie, 2012).

The history of agricultural education in Nigeria can be traced back to those olden days of traditional farming. Starting from childhood, children were trained through apprenticeship experience by their parents or relations Apart from the acquisition of relevant traditional skills in tilling the soil, weeding and harvesting; farming apprenticeship also inculcated the spirit of discipline and endurance. Hence in many parts of Nigeria, the cultural heritage in agriculture is being passed from one generation to another through the informal apprenticeship system (Olaitan, 1984). In early 20th century the British Colonial Government got committed to the task of improving agricultural resources in Nigeria by carrying out a range of research studies on crops, training of agricultural staff needed for research and extension. This commitment led to the establishment of the then five schools of agriculture in Nigeria between 1920 and 1960.

According to National Open University Manual (2009), the British colonial government schools were located at Moor plantation in Ibadan, while others were located at Akure (Ondo State), Umudike (Imo State), Zaria (Kaduna State) and Kabba (Kogi State). Later on, a rural training centre was established at Asaba. The major objectives of these schools included the preparation of technical component extension workers to help Nigeria farmers improve their production techniques. It was recognized that the youths needed to be initiated to improve farming rather than to continue under the traditional apprenticeship system. This awareness led to the introduction of gardening and nature study into primary school curriculum as a way of improving technical agricultural education in Nigeria. According to the National Open

University Manual, (2009) the inclusion of gardening and nature study in primary school curriculum resulted into adequate supply of qualified teachers to teach the subjects at the primary schools and teachers training colleges. With Nigeria independence 1960 and people's awareness of the rapid improvement in Nigeria's agricultural resources, various regional and later state governments introduced the teaching and learning of Agricultural science in the secondary schools in Nigeria (National Open University Manual, 2009).

2.4 Factors Affecting Students' Performance in Vocational Agriculture

It is reported in literature that five principal factors influence the agricultural education training (Kidane and Worth, 2012). These principles were individual, family, socio-cultural, socio-economic and situational factors.

1. Individual: In the school environment, the individual factors such as student competence in the medium of instructional language, study effort, the number of lectures missed, and age are the most determining factor in students' educational successes and performance, and, which if addressed can have a positive effect on students achievement (Harb and Ahmed, 2006; Clabaugh and Rozycki, 1990). Similarly, Teddie and Reynold (2000) explained that student capacity and effort have a positive effect on student's performance in the school. These confirmed that individual factors have a positive intervention on student's performance and achievement identifying and controlling of these factors have a positive effect on students success in school.
2. Family: Parents are the major role players in academic achievement (Alam *et al.*, 2011). In the teaching and learning process, family factors influence student's success and school achievement. Parental expectation and aspiration, home

environment and parental involvement in their child's education, such as creating conducive home environment and the consistent provision of assistance in their studies, are the main factors that could affect the student's academic achievement (Christenson *et al*., 1992). Kloosterman (1999) studied the effects of home environment on learner's socio-emotional and cognitive development. The author clearly shows that the family and school environments play important roles in learners' socio-emotional and cognitive development. Emotional support, family values such as respect, strong maternal role, legacy and maintenance of the home language were identified as the most essential family factors (Kloosterman, 1999).

Marks (2006) reports that both family size and family type have effect on student's academic achievement. Students from large, single parent and re-constituted families were found to be grouped in the academically weaker categories in the school. The study also clearly showed that family types such as single parent and reconstituted family had negative effects on student performance. These empirical studies shows that family factors can and do affect students achievement. Agricultural education training neede to be conscious of this reality and be designed to help students overcome any negatively influencing factors (Kidane and Worth, 2012).

3. Socio-cultural: Socio-cultural factors have major implications in the school and student achievement. Socio-cultural factors that contribute to quality agricultural education implementation are student mobility and racial background (Cooper and Center, 1998) and social class, discriminatory language and ethnicity (Emmitt *et al*, 2003). Furthermore, Otsuka (2004) confirmed that students achievement varies based on their different ethnic background. Jegede and Okebukola (1989) reports that socio-cultural factors such as goal structure, and the American world-view and

societal expectation have significant effects on student achievement in science subjects.

4. Socio-economic: Socio-economic factors are related indirectly to children's academic achievement through parental belief, income and behaviour (Davis, 2008). Socio-economic status is estimated as an arrangement of factors including income, level of education and occupation (Boskey, 2009). Based on Davis' (2005a) findings, there were three indicators that characterized family socio-economic status and structures. These indicators were parental education, parental income and family size. Furthermore, much empirical evidence shows that parental education, children's education and earning were strongly related to each other (Arias *et al*., 2004). Vansteensel (2006) showed that learner's family socio-economic status and home learning environment have noticeable effect on learner's performance. Similarly, Davis (2005a) identifies that parental education and family income as factors can explain differences in grades or performance of the students in school (Harb and Ahmed, 2006).In addition, parent education and family income determine the living condition of students.
5. Situational factors in teaching and learning process: The school environment, such as safe school environment, flexible grouping and provision of language support for learners, was found to affect academic achievement. A positive school culture including a shared vision, an orderly climate and positive reinforcement each play a crucial role in academic achievement in the teaching and process (Teddie and Reynolds 2000,). Killian and Baker (2006) suggested that an improvement in situational conditions in the school, namely; increased support from school administration and the reduction would improve student achievement. Moreover Kidane and Worth (2012) results show that lack of enforced policies and weak

administration are the main sources of students stress in the school environment. Similarly, lack of connection between administration support and students discipline also create stress in the school. Higher stress leads to poorer performance (Killian and Baker, 2006). Another factor that contributes to differences in grades and academic performance of students is how crowded a classroom or lecture hall is, the more frustrating the learning and the poorer students will perform (Harb and Ahmed, 2006; Omar *et al*., 2002; Rahuman and Uddin, 2009).

2.5 Career Concepts and Options in Vocational Agriculture

Career is the progress and action taken by a person throughout life-time, especially those related to that person's occupations. A career is often composed of the jobs held, titles earned and work accomplished over a long period of time, rather than just referring to one position (http://google.businessDictionary.com, 2010). Patton and McMahon (2001) define career as the sequence and variety of occupations (paid and unpaid) which one undertakes throughout a life time. More broadly 'career' includes life roles, leisure activities, learning and work. The term 'career' was traditionally associated with paid employment and referred to a single occupation. In today's world of work the term 'career' is seen as a continuous process of learning and development (http://www.google.Myfuture, 2012).

Career and VTE are a programme of articulated sequential experiences that prepare students for successful participation in the community, family, postsecondary education and careers. Through careers and vocational technical education students are empowered to be successful in today's world. Every career that is available to people has the potential to change, become obsolete, or create new opportunities. Careers are dynamic and our livelihood is now dependent on how well we can adjust, create and learn new things (Bruhn, 2008). Esters and

Bowen (2008) assert from their study that "parent or guardians and friends are the individuals most influencing in career choice; lack of interest in agriculture; and lack of career opportunities influence career choice." Furthermore, they indicate that other career interest, personal factors, and other events and experiences are the leading reasons why choosing a career in agriculture is influenced. In their work few minorities indicated poor grades in school and tiredness of school and work made choice of career in agricultural education impossible.

Mitchell and Krumbottz (1990) advanced a theory called social learning theory career decision making which explains how educational and occupational preferences and skills are acquired and how selection of courses, occupations and fields of work are made. The theory identifies the interaction of genetic factors such as race, environmental conditions, social and economic forces, learning experiences, associative and instrumental, and performance (task) skills as in work habits. It is posited that each of these influencers plays a part in all career decisions that are made, but different combinations of interactions of the influencers produce a multitude of different career choices that individuals make (Mitchell and Krumbottz, 1990).

The objective of agricultural education is to prepare and support individuals for careers, build awareness, and develop leadership for the food, fibre, and natural resources systems (Case and Whitaker, 1998). Therefore, if people are not supported and prepared for career, the agricultural education mission is not achieved or met. Career is a job or occupation regarded as a long- term or life-long activity, or is the general path or progress taken by someone or something to earn a living (Encarta Dictionaries). According to Binkley (1970) career is your work, occupation. In it you produce economic goods or services beyond your own needs and exchange items for goods and services produced by others. Career according to Oxford

Advance Learner's dictionary is the period of time that you spend in your life working or doing a particular thing.

Wright (2012) says "Agriculture crosses overall disciplines so career choices are endless. Marketing, engineering, communications and even psychology fall under careers that pertain to agriculture. Phipps and Osborne (1988) state, "The most important function of agricultural education is to prepare youth and adults for careers in agricultural education." More importantly, all schools need to prepare for agricultural careers so that predicted shortage of trained professional in agriculture may be alleviated (Phipps and Osborne, 1988). Olaitan (1984) outlines opportunities for career development in agriculture, which are as many as the area of specializations: These include;

Crop Production

i. Agronomy
ii. Crop protection
iii. Horticulture
iv. Crop breeding

Soil and Surveying

i. Soil science
ii. Farming planning
iii. Soil conservation
iv. Fertilizer programming
v. Soil testing
vi. Pedology

Animal Production /Fishery

i. Fish farming
ii. Animal nutrition
iii. Animal husbandry
iv. Animal pathology
v. Animal health

Agricultural Engineering/Mechanisation

i. Tractor driving

ii. Tractor maintenance
iii. Spraying and tillage
iv. Farm mechanization
v. Building of farm structures processing
vi. Food chemistry
vii. Food engineering
viii. Confectionary and preservation
ix. Food administration
x. Catering and home management research
xi. Soils; crop production
xii. Food manufacturing and marketing
xiii. Livestock; fisheries
xiv. Rural sociology and extension

Alternative career options for agricultural education major are a reason that many current agriculture teachers have left the field, if you choose not to engage in these available options:

i. Extension educator
ii. International projects
iii. Agricultural lending and finance
iv. Agricultural sales
v. Training and development
vi. Farming/ranching
vii. Livestock or agronomic consulting and nutrition (agricultural science and technology education, 2012).

Williams (1991) opines that agricultural education is not limited to the following career options:

a Horticulture
b Conservation
c Natural resources
d Agricultural products and processing
e Production of food and fibre
f Aquaculture
g Agricultural products, mechanics, sales and services, economics, marketing and leadership development.

Binkley (1970) was of opinion that “there are eight areas in agriculture:

a. Agricultural Production
   i. Animal science
   ii. Plant science

b. Farm Business Management
   i. Farm accounts
   ii. Buying and marketing
   iii. Financial and legal management
   iv. Farm organizations
   v. Governmental programs

c. Agricultural Supplies
   i. Agricultural chemicals
   ii. Livestock feeds
   iii. Seeds
   iv. Fertilizers etc

d. Agricultural Mechanics
   i. Agricultural power and machinery
   ii. Agricultural structures and conveniences
   iii. Soil and water management
   iv. Agricultural mechanics skills

e. Agricultural Products
   v. construction and maintenance
   vi. Agricultural electrification
   i. Food products
   ii. Non-food products

f. Ornamental Horticulture
   i. Arboriculture
   ii. Floriculture
   iii. Green house operation and management
   iv. Land Scaping
   v. Nursery operation and management
   vi. Turf management etc

g. Agricultural Resources
   i. Soil
   ii. Wild life
   iii. Water
   iv. Air
   v. Fish

h. Forestry
   i. Forest
   ii. Forest protection
   iii. Wood utilization
   iv. Recreation

v. Special products etc

Ferrum College Virginia (2012) gave career paths, to include.

a. Soil conservationist
b. Vocational agricultural teacher
c. Extension Agent
d. Farmer/manager
e. Quality assurance supervisor
f. Peace corps
g. Sale representative
h. Agricultural scientist
i. Commercial loan officer

It is therefore obvious that Vocational Agricultural Teacher is not the only career in Agricultural education as we have limited the course of the study to be.

2.6 Empirical Studies

Zwane and Dlamini (1999) carried out a research titled "The Relationship between high school students' academic performance in science and agriculture" in Swaziland. The major purpose of the study was to determine the relationship between the performance of O-level agriculture students in basic science and agriculture. The research design for this study was descriptive correlation. The target population was form five students (1800) who sat for the 1996 O-level agricultural examination in Swaziland. A stratified cluster random sampling techniques was used. The schools were stratified by administrative region and location. A representative sample size (n=317) was obtained using a table by Krejcie and Morgan (1970) for determining sample size. The instrument for data collection was agriculture external examination question paper of 1996. Data were collected from marked scripts of the 1996 O-level agriculture examination council in Swaziland. The following statistics frequencies, means, standard deviations, correlations, t-test analysis of variance, and multiple regression analysis were used to test all the null-hypotheses at alpha level of 0.05 significance.

The researcher found out that students' performance in science was highly correlated with performance in agriculture. Students from urban, mission and single schools performed significantly higher than students from rural, government and mixed schools. The researcher concluded that a strong relationship between science and agriculture was found. The gender of the students had no major influence on their performance and was found to be a weak predictor. Performance in science was the best predictor of performance in agriculture.

This present study is similar to the past research work because academic performance is one of variables. The present study is different from past research findings in that, it used questionnaire as instrument for data collection. This is also because the study was carried out in Nigeria not Swaziland. Another reason is that, present study was not gender bias like the previous study. The present study looked into impact of academic performance, while the past study looked at relationship between academic performances of high school students in science and agriculture. Data collected might not be reliable because they were obtained from scripts marked by some individuals other than the Researcher himself.

Wingenbach (1999) carried out a study titled "agriculture students' academic achievement, attitudes, and learning styles " The purpose of this study was to determine if a statistical relationship existed between academic achievement and examination delivery method for students enrolled in a complex application in agricultural course during spring semester1999.The study took place in Mississippi University, United States of America. Descriptive survey methodology and co- relational design were used in the study. The target population was used as the sample for the study, that is, a purposive sample of College of Agricultural students (n = 45) had their computing application skills tested through traditional (paper and pencil) and electronic (e-mail) methods. The instrument for data collection in addition to teaching or instruction sections was Likert-scale questionnaires

responding to anxiety. The Spearman-Brown reliability coefficient was used for data analysis at 0.87 level of significance.

The results showed that significant, moderately positive associations resulted between academic achievement and exam delivery method for the quiz and exam scores. Agricultural students who took the quiz using paper and pencil had significantly higher scores than students who took the quiz through an electronic version. A significant moderate relationship existed between academic achievements and learning style for the quiz; field- independent students achieved significantly higher quiz scores than did field-independent learners. No significant associations were found between academic achievement and students' attitudes towards computers, computing anxiety levels, attitudes towards electronic exams, or gender. The variable of time may have a significant impact upon academic achievement for students involved in computerized testing situations. Early identification of field- dependent learners affords the instructor time to provide additional assistance for those who find learning computing skills an academic challenge.

The present study is similar with past study because both examined academic achievement and performance, also used Likert-scale questionnaire as instrument for data collection. The present study is different from the past work because it neither employed correlation design as its research design; nor did it use scores and Spearman-Brown reliability coefficient for data analysis. The population for the study, which was taken as sample size was small, as the discovery of this work cannot be generalised to conventional system of our education.

Rudd and Moore (2001) carried out a study titled "undergraduate agriculture student critical thinking abilities and anticipated career goals: Is there a relationship?" The study attempted to examine the relationship between College of Agricultural and Life Sciences students'

critical thinking disposition and career choices in Florida. The population for the study was the students in six classes in the spring semester of 2001 (a total 344 students). A total of 344 students were samples used to collect data for the study. The instrument for data collection was 75 Likert-scale questionnaires. The research design used was non-probabilistic sampling or quasi experimental design because data were not randomly selected. As such the study was limited in that the sample was not random, and the results can only be used to describe the students who participated in the study. Data collected were analysed using Pearson product moment correlation-coefficient at 0.05 level of significance.

The result of the study did not find a significant relationship between career choice and critical thinking disposition. This set of participants did not indicate any significant ties between career choice and critical thinking disposition other than the finding of significant difference in open-mindedness and self-confidence. The findings suggested the need for additional research to be conducted examining the relationship between gender and critical thinking disposition of students in colleges of Agriculture.

The present study is similar with the past research work in the use of questionnaires as instrument for data collection. The past study also investigated career choices. The past study used the total population as samples for the study, so also this work used the population as samples for data collection. The previous work took place in Florida while this study took place in Nigeria. The both studies shared different statistical tool because the former looked at relationship while the present probed at influence. The work of Rudd and Moore had a variable that is too logical and abstract, which is critical thinking disposition of students.

Bloye (2004) carried out a research study titled “Vocational interest and other non-cognitive factors as predictors of academic performance in high school in Johannesburg South Africa”.

The participants consisted of students from a government secondary school in Gauteng, South Africa with over 1500 students. The sample consisted of 285Grade 10 students, 132 of which were male and 153 of which were female. The average age of participants was 16years. The following Null Hypotheses were formulated. Firstly, academic ability has a significant influence on school students' academic performance; secondly, school students who show vocational interest patterns that correspond with specific subject content; perform academically better than school students who do not have interest that are in line with subject content; and thirdly school students with positive academic attitudes and study behaviour perform academically better than students with negative academic attitudes and study behaviour.

Data were collected through completion of the general scholastic aptitude test, the self directed search and the academic behaviour and attitudes questionnaire. The research design used in the study was non-experimental survey design. Data analysis was carried out using the statistical package for social sciences (SPSS, version 14). The significant level of the relationship was considered at $p \leq 0.05$ and $p \geq 0.01$ level of series of multiple regression analysis revealed that academic ability, vocational interest, self-efficacy, achievement motivation, self directedness in learning and avoidance of procrastination all contributed toward predicting academic performance. With regard to the role of vocational interests, the results also revealed that investigation and realistic interest had a significant effect on academic performance even when subject content did not match vocational interest patterns. An adjustment model, based on social cognitive career theory was formulated in order to conceptualize the study.

This present study is similar with past research because it used academic performance and vocational career and interest. The present study used probability of less than or equal to 0.05

level of significance in data analysis and interpretation. The present research used 462 respondents, while the past research work used 285 students as data. The present research focused on Colleges of Education, while the past made use of secondary schools, the on-going study used descriptive Survey Research, while the past research used Non-experimental survey design. The generalization of the fantastic work of Bloye is impossible because the coverage is too small, that is only a secondary school in Gauteng South Africa. The question is: Is that the only secondary school in Gauteng, South Africa?

Torres (2009) carried out a research titled "factors influencing agricultural education students' choice to teach". The purpose of this study was to determine the factors that influence senior level agricultural education students' choice to become secondary agriculture teachers. The following research objectives were developed: describe characteristics of students majoring in agricultural education (sex, perceived agriculture experience compared to their peers, years enrolled in school-based agricultural education courses, years of FFA membership, participation in SAE, and years of 4-H membership); describe students' beliefs about teaching secondary agricultural education (expert career, high demand, social status, teacher morale, salary) describe students' attitude toward teaching secondary agricultural education (ability, intrinsic career value, fallback career, job security, budging, time for family, job transferability, shape the future of adolescents, enhance social equity, make social contribution, work with adolescents, prior teaching and learning experiences, social influences);describe students' intention to teach secondary agricultural education (social dissuasion, satisfaction with choice).

The study focused on the extent to which beliefs and attitude influenced students' intent to select teaching secondary agricultural education as a career. The Agricultural Education Factors Influencing Teaching Choice instrument was distributed to senior level students

enrolled in institutions with programmes to certify secondary agriculture teachers in nine states. A total of 145 students completed the instrument. This study utilized descriptive research design method. Data collection was by using mailed questionnaires which was five Likert scale. Data were analyzed using statistical packages for social sciences, that is stepwise regression.

Overall, negligible to low relationships were found between students' beliefs and selected characteristics. Negligible to low relationships were also found between students' attitude and selected characteristics. A moderate relationship was found between students 'participation in high school agricultural education and their intent to teach. Negligible to low relationships were found with the remaining characteristics and intent to teach. Using stepwise regression, results show that 11 % of students' intent to teach can be explained by the belief sub-constructs *teacher morale* and *expert career*. Sixty-one percent of the students' intended to teach can be explained by the attitude sub-constructs *fallback career*, *working with adolescents*, *intrinsic career value*, and *job security*. Using hierarchical regression revealed that 17 % of students' intention was to teach can be accounted for by attitude when controlling for beliefs.

The present study is similar to the past study because both have academic performance and choice of career as variables for the study. The two studies were involved with tertiary institutions of Education.

The present research is different from past work because it took place in Johannesburg, South Africa. The previous study used mailed questionnaire which was Five Linkert scale, while the on-going used Four Linkert scale of questionnaire. The present used product moment correlation-coefficient and t-test to analyse the collected data whereas the past study used

Statistical Packages for Social Sciences. The present study used 462 students, while the previous study used 145 students. The sample size for Torres' work is too small, a sample 145 students cut across nine states of the country.

Ramdwar and Ganpat (2010) carried out a study titled "Likelihood of students in the formal education system in Trinidad to pursue agriculture as a profession and the implications for development." The major purpose of the study was to determine the type of students who studied agriculture, their perception of the profession and more importantly, the likelihood that they will make a career in agriculture. The sampling was conducted in three phases. In the first phase, a sample of two hundred secondary school students representing about five percent of the population in 2007. In the second phase five schools each in the North central and southern regions in Trinidad were randomly selected from all schools teaching agricultural science, then 20 students were randomly selected from all the class register and surveyed making a sample size of 300. This represented about 10% of the population of agricultural science students in 2008. In the third phase, students pursuing agricultural diploma and degree level (n=100) were surveyed to determine what influenced students to study agriculture beyond secondary school level and the likelihood that they would continue in a career in agriculture. The samples were made up of fifty diploma students out of a population of one hundred. Fifty university students at the under-graduate level out of a population of 150 were randomly selected and asked to complete a questionnaire.

Results showed that in schools where agriculture was taught, while students firmly believed that agriculture was very important, very few made it a career-choice. In secondary schools where agriculture was not taught, students were generally favourable in their overall attitudes to agriculture, but there was only moderate indication that they would pursue the field further

as a career, at the tertiary level. There was very strong indication that these students would continue in a career in Agriculture.

The present study is similar with the past research work in the use of questionnaire as instrument for data collection. In addition past and present studied career choices in agriculture. But present study is different from the past research work in the following ways: the past study was carried out in three phases in different years and location. The previous study used statistical tools like spearman's Rho, Kruskal-Wallis test to analyse the data at 0.05 level of significance, while the present work used Regression analysis for data analysis at 0.05 level of significance. The research work cannot be recommended for academic research because students are given the time frame to finish. The sampling techniques for choosing samples were not stated or clear. The question is, how did Ramdwar and Ganpat arrive at 5%, and 10% of students' samples they used?

Nyaguthii (2011) carried out a research study titled "relationship between attitudes, academic performance, gender and choice of agricultural careers among secondary school students in Thika District, Kenya". The study consisted of 240 form two students selected from secondary schools in Thika District. Attitudes towards agricultural careers were measured using an agricultural attitudes scale developed by the researcher. Agriculture scores were obtained from the school records to measure agriculture academic performance. Career choices were measured through a questionnaire which also carried students' background information. For data analysis the researcher used both descriptive and inferential statistics. All the null hypotheses were tested at alpha level of 0.05 level of significance. The statistics used included t-test, chi-square and Analysis of variance (ANOVA).

The study established that majority of the students in Thika District did not express career aspirations in agriculture. This was despite the fact that majority of the students had positive attitudes towards agricultural careers. The study established that only 33.3% of the students were low achievers in agriculture, indicating that academic performance in the subject was never to be blamed for low number of students who chose agricultural careers. Significantly more boys than girls chose agricultural careers, despite the fact that more girls than boys had positive attitudes towards agriculture, and girls performed slightly better than boys in the subject. The findings of the study led to the conclusion that failure by students to choose agriculture as a career was neither as a result of poor performance in the subject nor by attitudes towards agricultural careers.

This present study is similar with past research in the use of questionnaire as an instrument for data collection. The topic of present research is very similar to the past study. The null hypotheses of present study were tested at o<=0.05 level of significance like the previous research work. The present study is different from the past because it took place in different locations that is Nigeria for present study and in Kenya for past study. This study respectively focused on N.C.E students, and used more samples; while the past study used secondary school students using 240 students as samples. Also the present study used Regression Analysis for the analysis of data collected. The previous study was carried out 2011, while present was carried out in2014. The study's delimitation will be totally unacceptable here in Nigeria. Is that the only secondary school in Thika district in Kenya? Why is it delimited to only form two students and many other questions?

2.7 Summary of the Reviewed Literature

The Covington theory of academic performance dealt with cognitive self-regulation which allowed students to express themselves, while being actively involved in learning. This study was based on this theory, because for students to perform in whatever they are learning active involvement is essential. At present, learning is more of head knowledge than active performance. Career choice theory of John Holland was exceptional in this work. The theory dealt with human personality traits which everyone at least belongs to one of the personality traits. Also people can only be successful and satisfied when they find right environment to express their skills, abilities, values, attitudes and that is what influenced one to act, and work that way. This day money and influence are underlying factors for careers people chose and that is why outstanding success in chosen careers is hampered. Academic performance is the ability to study and remember facts and being able to communicate the knowledge physically or verbally. Challenges like poor preparation of students from lower levels, lack of effective guidance services, and population explosion among several others can result to poor academic performance. Career is the progress and action taken by a person throughout life-time, which include life roles, leisure activities, learning and work paid or unpaid. Careers in Vocational agriculture are available for one who is entering the occupation.

The empirical studies reviewed the work of Zwane and Dlamini (1999) took gender as a predictor of performance in agriculture. It was later not accepted but took performance in basic science as the only predictor of performance in agriculture. There is also gap in the distance; the work was conducted in Swaziland. The environment and way of life may be different. Wingenbach (1999) took a research and discovered that students who took quiz using paper and pencil scored higher than those who used electronics. The Researcher concluded that poor performance may be possible if the students that used electronic were

not literate. The research of Rudd and Moore (2001) indicated a serious need to examine the relationship between gender and critical thinking disposition of students in terms of choosing careers in colleges of Agriculture. Until this day no attempt has been made to that regard. Bloye (2004) formulated alternate Hypotheses for his work, while these days Null hypotheses are more preferable. Torres (2009) used mailed questionnaires for the respondents. This method may not be applicable in Nigeria especially when sample size is large. Ramdwar and Ganpat's (2010) study was conducted in three phases: secondary schools, senior secondary schools and colleges of agriculture. The study took place in different academic years, from 2007 to 2010. This kind of study may be difficult to undertake as a student of post graduate because as students there is time duration, but only as one seeking to improve and to field of knowledge. In his findings Nyaguthii (2011) said, "the failure of students to choose agriculture as a career was neither as a result of poor performance in the subject." This agreed with this study.

In all empirical studies reviewed none of the past researchers had carried out in Nigeria especially in North-Central geo-political zone "influence of academic performance in agricultural science on choices of vocational agriculture as a future career. This is, therefore the gap that was filled.

CHAPTER THREE

METHODOLOGY

This chapter on research design methodology contained the following sub-headings

3.1 Research Design

3.2 Population for the study

3.3 Sample size and Sampling Procedure

3.4 Instrument for Data Collection

3.4.1 Validation of Instrument

3.4.2 Pilot study

3.4.3 Reliability of the Instrument

3.5 Procedure for Data Collection

3.6 Procedure for Data Analysis

3.7 Regression

3.1 Research Design

The research design for this study was descriptive survey research design. This research design was chosen to collect detail factual information on the influence of academic performance on the choice of career in vocational agriculture in North -Central zone in Nigeria.

3.2 Population for the study

The target population was students in colleges of education in the North-Central states of Nigeria. The North-Central is made up of Benue, Kogi, Kwara, Nassarawa, Niger, and Plateau States. Each state has two colleges of education. The population comprised of all final year students of agricultural education (NCE III) in colleges of education numbering 876 students (Table 3.1).

Table 3.1: Population for the study

S/N	Colleges of Education in the North- Central	No. of NCE III Agricultural

	Zone	Education students
1	Niger state college of education, minna	188
2	Kwara State College of Education, Ilorin	51
3	College of Education, Katsina –Ala Benue State	100
4	College of Education, Gindiri Plateau state	31
5	Ankpa college of Education, Kogi State	44
6	Nasarawa State College of Education,Akwanga	48
7	Federal college of education kontagora, Niger	25
8	Federal college of education, Kabba Kogi State	78
9	Hill college of education Akwanga, Nassarawa State	62
10	Lafiagi technical college of education Kwara State	45
11	Oju college of Education Benue State 128	128
12	Federal College of Education Panshi, Plateau State	76
	Total	876

Source: Departmental offices of various Colleges of Education in North- Central Zone, Nigeria, (2013/2014).

3.3 Sampling Procedure

The sampling technique was purposive sampling. One College of Education was chosen from each state. Colleges chosen were the older, who are offering agricultural education. A total of 462 students which constituted the population in the six colleges were selected as shown in Table 3.2

Table 3.2: Sample Size for the study

S/N	Selected Colleges of Education in the North- Central Zone	No. of NCE III Agricultural Education students
1	Niger state college of education, Minna	188
2	Kwara State College of Education, Ilorin	51
3	College of Education, Katsina-Ala Benue State	100
4	College of Education, Gindiri Plateau state	31
5	Ankpa college of Education, Kogi State	44
6	Nasarawa State College of Education, Akwanga	48
	Total	462

Source: Departmental offices of various Colleges of Education in North- Central Zone, Nigeria (2013/2014).

3.4 Instrument for Data Collection

The instrument used for data collection was influence of Academic performance on Vocational Agriculture Career choices questionnaire made up of four (4) sections. Section "A" was on bio-data of the respondents. The response was based on a four-point rating of SA=Strongly Agree (4 point), A=Agree (3 point), D=Disagree (2 point), SD=Strongly Disagree (1 point). The four point Likert-type scale were used. Section "B" with items 1-3 focused on influence of low academic performance on the choice of career in vocational agriculture. Section "C" with items 1-2 focussed on influence of high academic performance on the choice of vocational agriculture as future career. Section "D" with items 1-6 focused on the students' choice of future career. Apart from the use of questionnaire, the researcher collected students' cumulative grade point average (CGPA) from the examination office of various departments of the selected colleges of education in North-Central.

Sources of data collection: The researcher had two sources of data collection, which were primary source of data collection and secondary source of data collection. The primary data dealt with use of questionnaire to collect first hand information from the respondents, while secondary data dealt with the use of students' CGPA that was collected from various colleges' departmental offices not directly from respondents as such was a secondary data.

3.4.1 Validation of the Instrument

In order to ensure the validity of the questionnaire the researcher gave the questionnaire to experts in area of the study in the Department of Vocational and Technical Education for vetting. Based on the inputs of the experts a final copy of the questionnaire was produced.

3.4.2 Pilot Study

A pilot study was carried out at Federal College of Education Kongo, Zaria North-West Zone, Kaduna State in Nigeria. The researcher gave the copies of the questionnaire to forty-five (45) agricultural education students of the Federal College in NCE III Education, Zaria. This was because NCE III students were only forty-five in number. The reason for the choice of location for the pilot study was because the same Syllabus/Curriculum is in operation in all Colleges of Education in Nigeria, and to add the location was outside the study area. The purpose of pilot study was to develop and test adequacy of research instruments, assess the feasibility of a (full-scale) study/survey, determine the reliability and validity of the questionnaire. The filled questionnaire copies were collected and the data were subjected to statistical analysis to determine internal consistency of the instrument.

3.4.3 Reliability of the Instrument

Data from the pilot study were statistically analysed to determine the reliability co-efficient. The Guttman options of the split-half and spearman-Brown reliability were used. Consequently, reliability coefficient of alpha level of 0.75 and standard alpha level of 0.86 were obtained. The reliability coefficients were considered adequate for internal consistencies of the instrument.

3.5 Procedure for Data Collection

The researcher obtained a letter of introduction from the Head of Department of Vocational and Technical Education, Faculty of Education, Ahmadu Bello University, Zaria, for the six Colleges in North- Central Zone. The letter was to enable the Researcher to administer the copies of questionnaire. Data collection was carried out by the researcher with the help of six research assistants who were trained and given details about the procedures. Respondents were requested to complete the questionnaire by supplying needed information through ticking the options provided on the influence of Academic performance on vocational agriculture career choices questionnaire.

Four hundred and sixty-two (462) copies of questionnaire were distributed to NCE III agricultural education students in all the colleges selected. One research assistant was used for each of the colleges to distribute copies of questionnaire, and also to collect them after completion. The completed copies of questionnaire were collected immediately by the researcher, from the respondents. The researcher recorded 100% return from administered questionnaires. Concurrently, the researcher collected the students' CGPA from the examination office of each College involved in the study.

The four Likert scale options were grouped into two. ‘Strongly Agree’ (SA) and ‘Agree’ (A) were considered as AGREE, while ‘Disagree’ (D) and ‘Strongly Disagree’ (DA) were considered ‘DISAGREE’. For the score below 2.5 it was accepted as Disagree, while from 2.5 and above were considered as ‘Agree’.

3.6 Data Analysis

The responses to the items in the questionnaire were coded and transformed from ordinal scale to interval scale. Bio- data and answers to the research questions were statistically analysed using descriptive statistics such as frequency counts and percentages. The objective data were analysed using Regression Analysis at 0.05 level of significance, to test the Null-Hypotheses. The decision rule was, if p-cal (calculated regression value) is less than p-critical (the table value) the null hypothesis is rejected, while if p-cal is greater than p-critical the null hypothesis is retained or accepted. Null Hypothesis was analysed and the used of Pearson Product Moment Correlation Coefficient (PPMCC) was adopted in the research.

Regression

Regression analysis gives information on the relationship between a response (dependent) variable and one or more (predictor) independent variables to the extent that information is contained in the data. The goal of regression analysis is to express the response variable as a function of the predictor variables. Once a regression analysis relationship is obtained, it can be used to predict values of the response variable, identify variables that most affect the response, or verify hypothesized causal models of the response. The value of each predictor variable can be assessed through statistical tests on the estimated coefficients (multipliers) of the predictor variables.

An example of a regression model is the linear regression model which is a linear relationship between response variable, y and the predictor variable, $x_i, i = 1,2...,n$ of the form

$$y = \beta_0 + \beta_1 x_1 + \varepsilon \qquad (1)$$

where

β_0, β_1 are regression coefficients (unknown model parameters), and

ε is the error due to variability in the observed responses. We estimate them by the least squares method.

When we do this we get the function:

$$\beta_o = \frac{\Sigma Y_i - b_1 \Sigma X_i}{n} \qquad (2)$$

$$\beta_1 = \frac{n\Sigma X_i Y_i - \Sigma X_i \Sigma Y_i}{n\Sigma X_i^2 - (\Sigma X_i)^2} \qquad (3)$$

Alternative Formulas:

The formulas for the estimated coefficients can be manipulated and written in a variety of ways. Here are a few other alternatives. One set of alternatives are the formulas given in the text.

$$\beta_1 = \frac{\Sigma (X_i - \bar{X})(Y_i - \bar{Y})}{\Sigma (X_i - \bar{X})^2} \quad \text{or} \quad \beta_1 = \frac{\Sigma X_i Y_i - n\bar{X}\bar{Y}}{\Sigma X^2 - n\bar{X}^2} \qquad (4)$$

$$\overline{X} = \frac{\Sigma X_i}{n}$$

and

$$\beta_o = \overline{Y} - \beta_1 \overline{X} \qquad (5)$$

$$\overline{Y} = \frac{\Sigma Y_i}{n}$$

CHAPTER FOUR

PRESENTATION AND DATA ANALYSES

The chapter is organised under the following sub-headings:

4.1 Analysis of Bio-data

4.2 Answers to Research Questions

4.3 Testing of Null Hypotheses

4.4 Summary of the Major Findings

4.5 Discussion of the Results

4.1 Analysis of Bio-data

Table 4.1.1: Names of Colleges

Colleges	Frequency	Percent
C.O.E, Katsina-Ala	100	21.6
C.O.E, Minna	188	40.7
C.O.E, Ankpa	44	9.5
C.O.E, Akwanga	48	10.4
C.O.E, Gindiri	31	6.7
C.O.E, Ilorin	51	11.0
Total	462	100.0

(Field Survey findings, 2014)

Table 4.1.1 showed various Colleges of Education in North-Central with their population and percentages. College of Education Minna had 188 students, that is, 40.7% of the total

population, and College of Education Katsina-Alla with 100 students making 21.6% of the population. College of Education Minna and Katsina-Alla gave 62.3% of the total sample of the study.

Table 4.1.2: Age (in years) of respondents

Age (in years)	Frequency	Percent
16-20	85	18.4
21-25	263	56.9
26-30	77	16.7
31-35	36	7.8
36 and above	1	.2
Total	462	100.0

(Field Survey Findings, 2014)

Table 4.1.2 shows the age range of students, in years in which those between 21-25 years were 56.9%. While 18.4% were between 16-25 years and 16.7% were within the age range of 26-30 years. 8% of students were in the age range of 31 years and above.

Table 4.1.3: Sex of the Respondents

Sex	Frequency	Percent
Male	262	56.7
Female	200	43.3
Total	462	100.0

(Field Survey Findings, 2014)

Table 4.1.3 shows sex of students. Males were 56.7% and females were 43.3% of the sample. The outcome is that these were more male students than females.

Table 4.1.4: Respondents' Location of Colleges

Location	Frequency	Percent
Urban	343	74.2
Rural	119	25.8
Total	462	100.0

(Field Survey Findings, 2014)

Table 4.1.4 indicates the locations of the various colleges of education in North-central Nigeria. From the Table 4.1.4 five colleges were located in urban areas, while only one located in the rural area.

4.2 Answers to Research Questions

4.2.1 Answer to Research Questions One and two

Research Question: What is the academic performance of the final year students in agricultural science in North-Central Zones in Nigeria?

Table 4.2.1: Cumulative Grade Point Average of the Respondents

Grade	Frequency	Percent
Fail	261	56.5
Pass	201	43.5
Total	462	100.0

(Field Survey Findings from Examination Offices, 2014)

Table 4.2.1 shows the academic performance of students in North-Central states. From the Table data 56.5% failed, while 43.5% passed. This was determined from raw scores of students, that is, 56.5% had F, E, and D grades while 43.5% had C, B and A grades.

Research Question Three: To what extent academic performance in agricultural science influence the choice of vocational agriculture?

Table 4.2.2: Career choice in Vocational Agriculture

Response	Frequency	Percent
Disagree	320	69.3
Agree	142	30.7
Total	462	100.0

(Field Survey Findings, 2014)

Table 4.2.3.1 shows options to choose as Vocational Agriculture as future career. On this, 69.3% of students said based on their performance they would not go for vocational agriculture, while 30.7% agreed to make vocational agriculture as future career. 6

Table 4.2.3: Option for career in Agricultural Science Teaching

Response	Frequency	Percent
Disagree	315	68.2
Agree	147	31.8
Total	462	100.0

(Field Survey Findings, 2014)

Table 4.2.3.2 shows option to choose in Agricultural Science Teaching as a career. 68.2% disagreed to take agricultural science teaching as a future career, while 31.8% agreed to teach Agricultural Science teaching as a career in future.

Table 4.2.4: Career option in Educational courses

Response	Frequency	Percent
Disagree	379	82.0
Agree	83	18.0
Total	462	100.0

(Field Survey Findings, 2014)

Table 4.2.3.3 shows the choice of career in education in which 82% of the students disagreed that is, not to choose educational courses, while 18% agreed to pursue a course in education. This means performance was not responsible for making any educational course as a future career.

Table 4.2.5: Career option in Administration

Response	Frequency	Percent
Disagree	402	87.0
Agree	60	13.0
Total	462	100.0

(Field Survey Findings, 2014)

Table 4.2.3.4 shows the choice of career in administrative works. 87% of the students disagreed on making any administrative works as a future career. The implication is that academic performance was never a criterion to choose a career in any administrative work.

Table 4.2.6: Career option in Para- Military works

Response	Frequency	Percent
Disagree	433	93.7
Agree	29	6.3
Total	462	100.0

(Field Survey Findings, 2014)

Table 4.2.4.5 shows choice of Para-military work as future career in which 93.7% of the students disagreed to choose Para- military works as future career, while 6.3% of the students agreed to choose Para-military job as a future career.

Table 4.2.7: Career option in Library and Information Science

Response	Frequency	Percent
Disagree	455	98.5
Agree	7	1.5
Total	462	100.0

(Field Survey Findings, 2014)

Table 4.2.5 .6 shows career choices in Library and Information Science in which 98.5% of the students disagreed choosing Library and Information Science as a future career. While 1.5% of the students agreed to choose Library and Information science as a future career.

4.3 Testing Null Hypotheses

The regression analysis was used to test the null hypotheses. Pearson product moment correlation coefficient (PPMCC) was used in addition to regression analysis for null

hypothesis two to establish relationship between students who chose vocational agriculture and those who did not choose vocational agriculture as future careers.

All the null hypotheses were tested at 0.05 level of significance. Where significant p- cal (calculated value) was less than 0.05 (critical value) level of tolerance the null hypothesis was rejected and vice versa.

Null-Hypothesis One: There is no significant influence between Academic performance of students in Agricultural Science and choice of Vocational Agriculture as a future career at NCE level in Colleges of Education in North- Central Zone in Nigeria.

Table 4.3.1: Results of the Coefficients of the regression analysis

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.571	.122		37.377	.000
	Academic performance	.111	.185	.028	4.597	.041

Dependent Variable: Choice of Vocational Agriculture as future career

The Table 4.3.1 gives the results of the coefficients.

t (4.597), $p < .05$.

The regression equation is: $\hat{Y} = 4.571 + 0.111X_1$

The tables 4.3.1 the p-calculated of 0.041is less than critical value 0r table value of 0.05. Therefore, the null hypothesis one is rejected, which means there is statistically significant influence of academic performance in agriculture on choice of vocational agriculture as future career. The influence is found to be strong and in linear relationship. This implied that

choice of future career in vocational agriculture is based on academic performance in agriculture.

Null Hypothesis Two: There is no significant influence between the students with low academic performance in Agricultural Science and choice of vocational agriculture as future career.

Table 4.3.2: The Results of the Coefficients of regression

Coefficients[a]					
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.916	.138		35.665	.000
	Low academic performance	0.264	.092	.133	2.870	.004

a. Dependent Variable: Choice of Vocational Agriculture as future career

The Table 4.3.2 gave the results of the coefficients.

t (4.597), $p < .05$.

The regression equation is: $\hat{Y} = 4.916 + 0.264X_1$

From the Tables 4.3.2 the p-calculated of 0.004 is less than critical value or Table value of 0.05. Therefore, the null hypothesis two is hereby rejected. This means, there is statistically significant influence of the students with low academic performance in Agricultural Science and choice of vocational agriculture as future career. This implied that low academic performance has a strong and negative influence on choice of vocational agriculture as future career.

Null-Hypothesis Three: There is no significant relationship between students who chose vocational agriculture and those who did not choose vocational agriculture as future careers.

Table 4.3.3: Pearson Product Moment Correlation Coefficient (PPMCC) for Null Hypothesis two

Correlations			
		Disagree	Agree
Disagree	Pearson Correlation	1	.726
	Sig. (2-tailed)		.07
	N	462	462
Agree	Pearson Correlation	.726	1
	Sig. (2-tailed)	.07	
	N	462	462

Correlation is not significant at the 0.01 level (2-tailed).

Reject H_0: r (462) = 0.774, p = 0.07

From the table 4.3.3, our Pearson Correlation coefficient (0.726) and P value (0.07) is greater than 0.05 of critical value which is table value. Therefore null hypothesis two is accepted that there is no significant relationship between students who choose vocational agriculture and those who did not choose vocational agriculture as future careers.

4.4 Summary of the Major Findings

The following are summary of the major findings of this work.

1. Choice of future career in vocational agriculture was based on academic performance of the students in agricultural Education.
2. Students with low academic performance had a strong and negative influence and did not choose vocational Agriculture as future career.
3. Students who chose vocational agriculture were less in number than those who did not choose vocational agriculture as a future career. This implied that those who chose vocational agriculture are never related to those who did not choose vocational agriculture in their choice of future career.

4.5 Discussion of the Major Findings

In this section of this chapter the results of analyses presented, interpreted and explained were discussed. The study sampled four hundred and sixty-two students of NCEIII in colleges of Education in North-Central States in Nigeria. 75.3% of students were within ages of 16-25years. This is ideal because decision to change a career can be made when the individual is still young. 40.7% students in the study area in a class were from College of Education Minna, while 20.6% students were from College of Education Katsina-alla respectively. This is what Kolo (2012) called population explosion that is over 100 students in a class, can contributed to poor performance of students. Harb and Ahmed (2006) also said that the crowded classroom or lecture hall is, the more frustrating the learning and the poorer students will perform. A class of 188 students may not be conducive for learning depending on infrastructures and man power available. 56.7 % of students (262) were males, while

43.3% (200) were females. Therefore in the study area, there was no problem of gender in choosing vocational agriculture because; the difference between the number of males and females was minimal. This is in agreement with the findings of Zwane and Dlamini (1999), who found out that the gender of the students, had no major influence on their academic performance, and therefore found to be a weak predictor of choosing a career in vocational agriculture.

From the study area only 43.5 % (201) of the students out of the total population of 462 had CGPA that qualified them to pursue Vocational Agriculture as a career. The 56.5% (261) of the students were not able to choose Vocational Agriculture as career because they had no minimum CGPA requirement.

In Tables 4.2.1 to 4.2.6, showed career options. In which 30.7% (142) of the students chose vocational agriculture as future career, while 69.3% (320) did not choose Vocational Agriculture as their future Career.

The study tested three Null-Hypotheses:

Null-Hypothesis one showed that there was a statistically significant influence of academic performance on choice of vocational agriculture as a future career. This implied that academic performance was a predictor of choice of vocational agriculture as a future career. This finding disagreed with the discovery of Nyaguthi (2011) who said that academic performance in agricultural science was not a reason for low numbers of students who chose vocational agriculture as a career. The idea is that it takes academic performance to decide the choice of vocational agriculture as a future career. Ning *et al.* (2009) supported this idea when they said a good performance in agricultural science can give students better chance to choose vocational agriculture as a career.

Null-Hypothesis two showed that there was statistically significant influence of low academic performance on the choice of vocational agriculture as a future career. This implied that the Low academic performance had negative influence on choice of vocational agriculture as future career. The result of the study by Teddlie and Reynold (2000) agreed with this result, who explained that, students' abilities have a positive influence on students' performances in school. According to Teddlie and Reynold, If student's ability is low on the subject matter, academic performance will be low as well, hence hinder the choice of career. Nyaguthi (2011) who's finding led to conclusion that "failure by students to choose agriculture as a career was not as a result of poor academic performance". This finding did not agree with the result of this study. There is no indication that the students would pursue vocational agriculture further as a career.

Null-Hypothesis three showed no significant relationship between students who chose vocational agriculture and those who did not choose vocational agriculture as future careers. This implied that those who chose vocational agriculture are never related to those who did not choose vocational agriculture in their choice of future career. The outcome of this work is in line with the findings of ramdwar and Ganpat (2010) who show that "in schools where agriculture was taught, while students firmly believed that agriculture was very important, very few made it a career-choice". Researcher agrees with the fact the number is still reducing, because those with required CGPA may not make a career choice in vocational agriculture at other tertiary levels. And this is why the number of those who chose are far less than those who did not choose vocational agriculture as future career. No relationship was found between those who chose vocational agriculture as future career and those who did not, because one is either in or out.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATION

This chapter contained the summary, conclusion as well as recommendation; under the following sub-headings:

5.1 Summary

5.2 Conclusion

5.3 Recommendation

5.4 Limitation of the study

5.5 Suggestion for further studies

5.1 Summary

The study was carried out to determine the Influence of Academic Performance in Agricultural Science on the Choice of Vocational Agriculture as a Future Career by Students in Colleges of Education in North- central Zone States in Nigeria. Descriptive survey research design was used and the population for the study was 462 NCE III students in Colleges of Education in six North-Central states. The Sampling technique used was purposive sampling. Six colleges of education out of twelve Colleges of Education in North-Central Geo-Political Zone were selected as samples. Structured questionnaire was used to gather data from the respondents. Students 'CGPA were collected from Departmental Examination Offices of various colleges. Three research questions and three Null-Hypotheses were formulated for the study. Regression Analyses were used to test the first and second Null-Hypotheses at 0.05 level of significance. Pearson Product Moment

Correlation Coefficient was used for null hypothesis three in addition to Regression Analyses to establish the relationship between low and high academic performance on choice of vocational agriculture as a future career at 0.05 level of significance.

Null-Hypothesis one was rejected because significant (P) value of 0.04 was less than 0.05 level of significance and a correlation index value of 4.597 was obtained. While Null-Hypothesis two was rejected because significant (P) value of 0.004 was less than 0.05 level of significance with index of 2.87 obtained. And Null-Hypothesis three was rejected because significant (P) value of 0.726 was greater than 0.05 level of significance with correlation index value of 0.774 obtained. It was found out that choice of future career in vocational agriculture was based on academic performance of the students in agricultural education**.** Low academic performance had negative influence on choice of vocational agriculture as future career. High academic performance had positive influence on choice of vocational agriculture as a future career. Both High academic performance and Low academic performance influenced positively and negatively respectively the choice of vocational Agriculture as future career. Also there was no significant relationship found to exist between those who chose vocational agriculture and those who did not choose vocational agriculture as future career. It was concluded that: academic performance in agricultural Education was major predictor for choosing vocational agriculture as a future career, and that students who chose vocational agriculture were less in number than those students who did not choose vocational agriculture as future career.

5.2 Conclusion

Based on the findings it was concluded that:

1. Academic performance in agricultural education is major predictor for choosing vocational agriculture as a future career.
2. Low academic performance in agricultural education is a hindrance to the choice of vocational agriculture as a future career. The implication is students with low academic performance cannot pursue vocational agriculture as a career, in spite of their aspirations. High academic performance in agricultural education is a requirement to pursue vocational agriculture as a future career. It takes required CGPA, which is high academic performance to choose vocational agriculture as a future career. Students who chose vocational agriculture were less in number than those who did not choose vocational agriculture as future career.
3. Students who chose vocational agriculture were less in number than those who did not choose vocational agriculture as future career. And that, those students who chose vocational agriculture and those who did not choose vocational agriculture as future career were never related in choices they made.

5.3 Recommendations

The following recommendations were made based on the study

1. Career guidance enlightenment campaign should be inaugurated by the colleges of education and run by agricultural education department to organise orientation, seminars, symposium, career week and others. These programmes should be designed to address issues on future careers, both academic; mental and social requirements needed to pursue career in vocational agriculture and many other issues.
2. The Colleges of Education should ensure recruitment process of their lecturers are based on merit that is, educationally certified by Ministry of Education and

academically sound in the discipline. This is needful, because it takes quality teachers to produce quality students.

3. Colleges of education in conjunction with lecturers should encourage hard work by rewarding students having CGPA above minimum yearly with automatic accommodation in the college, laptops and many other tangible items. Remedial classes should be organised and strengthened by the department for students in all levels in the college, especially newly admitted students, so that students with deficiencies from lower levels can be helped. Government should make scholarship available for all vocational students, and those with high CGPA should be given special sponsorship. This is to motivate students from secondary schools with wrong perception on the course, including less privileged students. Government should ensure that those already on their careers be remunerated highly, to encourage those who are undecided on whether to choose a career in vocational agriculture as a career or not.
4. The students from their first year should be made to understand that choice of vocational agriculture as a career beyond NCE level is the best thing that could happen to students of agricultural education.

5.4 Limitation of the study

During the course of the study, the researcher encountered some constraints which included difficulty in the accessibility to some study areas. One of those constraints was many of the departments were unwilling to release their final year students 'results. They chose to call out the results instead of allowing the Researcher to photocopy the results. The major problem was Academic Staff Union of Universities (ASUU) and colleges of education Staff Union (COESU) strikes that stopped the work and did not allow the Researcher to collect the data

scheduled as expected. This delayed the work and resulted to additional financial commitments.

5.5 Suggestions for Further Study

The researcher put forward the following further studies in the related area:

1. Effect of high academic performance of students in colleges of education in agricultural education as predictor for choice of vocational agriculture as future career in North-Central states
2. The impact of academic challenges in agricultural education on choice of vocational agriculture in 21st century career among vocational agricultural students in North-Western States federal universities in Nigeria.

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APPENDIX

Appendix I

Letter of Introduction

Appendix II

QUESTIONNAIRE

Agricultural Education Section,

Department of Vocational and Technical Education,

Faculty of Education ABU, Zaria,

Kaduna State.

Date.....

Dear Respondent,

Request to complete Questionnaire

I am a postgraduate student of Agricultural Education in the Department of Vocational and Technical Education, Ahmadu Bello University Zaria, Kaduna State. I am presently carrying out a research on "Influence of Academic performance in agricultural science on career choice in vocational Agriculture of State Colleges of education students in North Central States."

You are requested to help me fill and supply the information needed in this questionnaire, as the purpose is purely academics. Please every information supplied shall be treated as confidential. Thanks for accepting to be of help to me for this research work.

Yours faithfully

Sunday Zhirin.

QUESTIONNAIRE FOR THE STUDENTS

SECTION A: BIO-DATA

Please tick ( ) the appropriate boxes below:

Name of school.....

1. **Age (in years)**
   a. 16-20 [ ]
   b. 21-25 [ ]
   c. 26-30 [ ]
   d. 31-35 [ ]
   e. 36 and above [ ]
2. **Sex**
   a. Male [ ]
   b. Female [ ]
3. **Location of school**
   a. Urban [ ]
   b. Rural [ ]

SECTION B what is the influence of low academic performance on students in their choice vocational agriculture as a future career?

There are four options in each item as follows

a. Strongly Agree (SA)

b. Agree (A)

c. Disagree (D)

d. Strongly Agree (SD)

The influence of low academic performance in choosing vocational agriculture as future career

S/N	Options	SA	A	D	SD
1	Low academic performances in Agricultural Education prevent students with chance to make Vocational Agriculture as a choice of future career.				
2	Low academic performance is responsible for failure to choose vocational Agriculture as future career				
3	Low or High academic performance has nothing to do with choice of vocational Agriculture as future career				

SECTION C: What is the influence of high academic performance of the students on their choice of vocational agriculture as future career?

The influence of high academic performance in choosing vocational

S/N	OPTION	SA	A	D	SD
1	High academic performance in Agricultural Education is the reason students prefer changing career from Agricultural Education after graduation				
	High academic performance in Agricultural education makes it easy for students to chose vocational Agriculture as their future career				

SECTION D: Based on your Academic performance which of these will you make as your future career?

S/N	OPTION	Agree	Disagree
1	Vocational Agriculture		
2	Agricultural Science teaching		
3	Any Educational Course		
4	Any Administrative works		
5	Para-military work		
6	Library and Information Science		