

**APPROACHES TO DEVELOPING SUSTAINED INTEREST IN STUDENTS
PREPARING FOR AGRICULTURAL CAREER
AFTER SECONDARY SCHOOL IN KADUNA STATE, NIGERIA**

BY

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(M.SC/EDU/44487/2012-13)**

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

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**A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES
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DEGREE IN AGRICULTURAL EDUCATION**

**DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION, FACULTY
OF EDUCATION, AHMADU BELLO UNIVERSITY, ZARIANIGERIA**

FEBRUARY, 2016

DECLARATION

I, Virginia Laraba, Ohiemihere by declare that this Thesis entitled “Approaches to Developing Sustained Interest in Students Preparing for Agricultural Career after Secondary School in Kaduna State” has been written by me in the Department of Vocational and Technical Education, Ahmadu Bello University Zaria. It is a true record of my research work under the supervision of Prof. B. M. Ndomi and Dr D.

O. Oni. It has not been presented in any form for the award of any higher degree in any university. The sources of literature consulted have been duly acknowledged in the main text and in the list of references.

Virginia Laraba, OHIEMI

Signature

Date

CERTIFICATION

This research titled “Approaches to Developing Sustained Interest in Students Preparing for Agricultural Career after Secondary School in Kaduna State” by Virginia Laraba, Ohiemi meets the regulations governing the award of the Degree of Master of Science degree in Agricultural Education of the 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 beloved husband and children.

ACKNOWLEDGEMENTS

The researcher acknowledges the help of the most High God for His love, guidance and protection in the course of this programme. Sincere regard goes to the researcher's major supervisor Prof. B.M. Ndomi for his invaluable criticism which was an anchor that pulled her all the way through. The researcher is ever grateful to Dr. D.O. Oni for always being faithful, dependable and thorough. The researcher must also acknowledge Dr. E .E. Adamu for her sisterly advice Mrs. H E. Isah's love and kindness in the course of this research is also acknowledged.

Dr .B.I Okeh is also highly appreciated for his scholarly guidance and contributions toward the success of this study. The entire members of staff in the Department are sincerely appreciated for their assistance in one way or the other towards completion of this study.

Worthy of mention is the love showed the researcher by her family members for financially supporting and providing her with an excellent atmosphere for doing her research. Not left out is the researcher's friend, Mrs. Victoria Eppie and her entire family who was always caring and gave all the possible support without which it would have been impossible to complete this research. Finally the researcher's sincere regard goes to her course mates for their encouragement and scholarly input towards the success of this research.

ABSTRACT

This study ascertained the approaches to developing sustained interest in students preparing for agricultural career after secondary school in Kaduna State. Five specific objectives, five research questions and five null hypotheses were stated for the study. The population studied consisted of 6,011 students at the Senior Secondary School level offering agricultural science and agricultural science teachers in Kaduna State. Stratified random sampling technique was used to select 493 respondents from twelve educational divisions of Kaduna state. The study employed the descriptive survey research design, and structured questionnaire was used in data collection. Data were analyzed using mean and standard deviation. The five null hypotheses were tested at 0.05 level of significance using t-Test statistic. Major findings revealed that taking students on field trip to places of interest like university farms created lasting impression in students and sustained their interest in agriculture. Four null hypotheses I, II, III, and V were accepted and null hypothesis IV was rejected. In conclusion, since Nigeria has the ambition of diversifying her economy and agriculture yet remains at a subsistence level, to develop successor generation of farmers there is need to adopt all the approaches identified in this study to attract youths into agriculture. It was recommended that teachers of agriculture should be well trained in agricultural methodology and liaise with successful role models in agriculture within and beyond the state to encourage students to enter into agricultural careers.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

One of the goals of secondary school education in Nigeria is to provide technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development to recipients. Education therefore is the backbone for the choice of one's life career and the type and level of education a child receives determines the profession he or she is likely to choose in life (Abakpa, Obinne and Adegbe, 2006). Education provides individuals with appropriate skills necessary for the development of his or her innate potentials so that he or she may contribute meaningfully to the development of the society.

In Nigeria, the National Policy on Education (NPE, 2004) prescribes six years of primary education and three years of Junior Secondary education which are collectively termed Basic Education that should be free and compulsory. Senior secondary education is for three years, and four years are prescribed for tertiary education that leads to a bachelors' degree. The senior secondary level of education is comprehensively planned to broaden pupils' knowledge and outlook. Every student is expected to take all the six core subjects, namely: English language, mathematics, a major Nigerian language, one of biology, chemistry, physics or health science, one of literature in English, history, geography or religious studies and a vocational subject among which category is agricultural science, home management, food and nutrition ,principles of account ,wood work etc (FRN, 2004). It is hoped that such combination can guide one into a career choice.

A career refers to a person's professional work life and involves the work roles that makes up his or her life and forms a pattern with other roles he or she has to play. Career is a life long adventure and demands that care be taken in choosing the appropriate one. Bluestein (2004) points out that most adults spend a third or half of their waking hours at work. It is

therefore expedient that an individual makes the right choice of a career. It is only when the right choice is made that it helps to develop and give value to the person and becomes the pivot on which hinges his or her happiness, fulfilment and general well being. Career also fulfills various core human needs or yearnings (Holland, 1997) thereby meeting the needs for food, shelter and many other physical as well as psychological needs.

Segal (1999) identifies some factors that have considerable influence in the choice of career to include genetics, familial interest, education, and social, economic and environmental pressures. Furthermore, Segal (1999) categorizes these factors into intrinsic and extrinsic factors. The intrinsic factors are those bothering on satisfying questions of challenges or achievement while the extrinsic factors bother on work conditions, supervision, job satisfaction and the happiness level of an individual. Among the varieties of career options that are self-sustaining and have measurable goal attainment is agriculture where returns on investment in which ever area, be it in crop production, fishery, livestock farming, crop processing or marketing are promising.

Awareness of the importance of agriculture in the country Nigeria was captured in the school curriculum early enough. Agricultural science is taught at the primary and secondary school levels in Nigeria. However, the question remains whether such is sufficient to create a desire in one to choose agricultural based career. In order to make a more deliberate impact, agricultural education is vocationalized to create the level of interest and ambition that would encourage the recipients to choose careers in agriculture.

According to Holland (1997) one can be happy with his or her jobs and will be able to do the jobs comfortably, if the jobs are congruent with his or her interests. Holland further defined career interests as patterns of likes, dislikes and indifference regarding relevant activities demanded in a career.

Holland (1997) identifies that relationships between interest and learning have focused on three premises namely, individual, situational and topical. Individual interest is considered to be an individual's predisposition to attend to certain stimuli, events and objects, it is associated with a psychological state of positive effect and persistence. It results in greater comprehension of learning materials within a broader domain of schooling. Student's individual interest sometimes is closely related to the goals of classroom learning. Individual interest can be defined in terms of school subjects such as agricultural science, literature or mathematics. A more general individual interest that students may have is expressed as a desire to acquire new information, to find out about new objects, events and ideas not restricted to any domain. This involves approaching and acquiring information to find out about something the students already know.

Situational interest is elicited by certain aspects of the environment, these include content features such as the ways in which tasks are organized and prescribed. It deals with the psychological state of interest and is characterized by an individual's focus on a text interested in. Topical interest on the other hand refers to the interest elicited by a word or paragraph that a topic presents a reader. It is this form of interest that is particularly relevant for educators because students are often given topics about which they will be expected to learn or write about. It deals with the level of interest triggered when a specific topic is presented.

The teacher's role is very paramount in arousing the interest of students for whom he plans the instruction and delivers it. What he or she does or does not do has a lasting effect on the learners. The competencies of the teacher, his qualification and teaching methods adopted go a long way in stimulating the interests of youths who shy away from agricultural education. Education remains the most important approach to develop the human being to enable him or her function effectively in whatever environment or situation he or she finds

him or herself (Sofolahan, 1997). According to the National Association of Agricultural Educators (1998) agricultural education has the mandate to prepare and support individuals for career in agriculture and to build awareness of and develop leadership for the food, fiber and natural resources systems in advancing personal and global well being.

Agricultural education is needed to produce skilled manpower to serve the agricultural sector through teaching, research, extension, entrepreneurship food processing, food storage and preservation. Non-formal agricultural education provided by extension workers is for capacity building in a wide range of rural organizations and groups. Adole(2006) opines that there is need to expose children early to vocational and career education and introduce them to various vocations and provide them a guide which would help them determine their choice of profession. Agricultural career should be expounded as it is capable of turning around the socio-economic standard of living of the people by turning many into food producers rather than being dependent on for government jobs or seeking for non existing employment in the other sectors.

Literally an approach is a way of dealing with something. Wikieducators (2011) posites that there are a number of approaches or paths that offer high quality and acceptable environment for students to learn. Pragmatic curriculum and teaching methods are among the identified approaches coupled with commitment over a substantial time period to achieve an objective. Stahl and Hall (2003) stress that the ambition to build a rural renaissance in Africa will fail unless research and development programmes seriously address the question of recruiting a new qualified and motivated generation into the agricultural profession. Stahl and Hall (2003) further agree that for any meaningful progress to be made, underinvestrment, loss of staff, incentives and failure to recruit replacement for an ageing cadre of practicing farmers have to be addressed.

Kaufmann (n. d.) acknowledges that a radically new approach is needed to build African scientific and institutional capacity to be effective and meet global standard in agricultural sustainability. Kaufmann emphasizes that whatsoever approaches adopted must be African-grown to address the following needs;

1. Upgrade teaching and learning processes to embrace integrated approaches that recognize interest among land use sciences and practices.
2. Improve access to locally relevant educational materials based on agricultural research experiences in Africa.
3. Stimulate interest of youth in agricultural science by attractive career opportunities.
4. Prepare students better with the systems of soft skills and tools needed for career in knowledge based innovations.
5. Make the curricula more responsive to developmental needs.
6. Enhancing the quality of the delivery of education.
7. Strengthening capacity to access and use different sources of facilities.

The foregoing seems to point out that meaningful approaches to develop the interest of students would require the contributions of all people. The parents are the first teachers known to the child; as such they have to begin early to lay the foundation by teaching how foods eaten at meal times are produced. The teacher at school must adopt teaching methods that lead to arousing interest in agriculture such as field trip and demonstration methods. Interventions from mentors such as global donor agencies providing talk shop, incentives and even scholarship to emphasize how noble the profession of agriculture is may be another approach to arouse student's interest. The government above all can play a crucial role by ensuring thorough effective supervision and evaluation of the agricultural education curriculum at all levels of learning to regular input and commitment to the development of agriculture generally.

1.2 Statement of the Problem

The researcher observed that many youths after secondary school, go into higher institutions to study courses with no clear definition of what career to pursue on completion of their studies. This is both because they were denied their preferred course at admission and were left with no option than to take what they were offered or due to ignorance, inexperience, peer pressure, careless advice from friends, parents and teachers and counselors.

Most of the time, certain courses such as accountancy, medicine, law and engineering are overly rated as prestigious and others as second rated and these are only considered as alternatives if these so-called prestigious courses are unattainable. Agricultural career falls among these second rated courses and as such, agricultural career remains largely unpopular among prospective undergraduates as they are beclouded with many perceptions of agriculture as a career for the aged and the illiterate. This is despite the fact that agricultural career is one career that Ayatse (2006), opines brings about agricultural development and impacts vocational skills which offer enough security for youths to be self reliant since jobs in the public sector are becoming very scarce. It is also an important solution to poverty alleviation and the chronic unemployment prevalent in Kaduna State today. Its unpopularity can be adduced to these reasons;

According to Ochu & Ochu (2006), Nigeria is a society with poorly equipped inadequately skilled and disinterested personnel in the agricultural sector coupled with willful negligence by policy makers and educational planners. Abah (2011) also specifies that youths who are the future farmers are not adequately empowered, and that the underdevelopment of the rural areas has created many problems for the young people. 1-Ic further asserted that agricultural research information as a component of agricultural development has often

focused its attention on adult farmers and has repeatedly failed to add the utilization of available information relevant to youths in agriculture in Nigeria.

This study sought to ascertain approaches that would develop sustained interest in agriculture to the point of taking up agricultural career among so many available career options.

1.3 Objective of the Study

The major objective of the study was to ascertain approaches for developing sustained interest in students to choose agricultural career after secondary school in Kaduna State.

Specific objectives of the study were to:

1. ascertain teacher-based approaches for developing sustained interest in students to choose agricultural career after secondary school in Kaduna State;
2. ascertain the interventions that develop sustained interest of students to choose agricultural career after secondary school in Kaduna State;
3. identify' extracurricular approaches that develop sustained interest of students to choose agricultural career after secondary school in Kaduna State;
4. determine familial approaches that develop sustained interest of students to choose agricultural career after secondary school in Kaduna State;
5. ascertain government-based approaches that develop sustained interest of students to choose agricultural career after secondary schools in Kaduna State.

1.4 Research Questions

The following research questions were answered:

1. What are the teacher-based approaches for developing sustained interest in the students to choose agricultural career after secondary school in Kaduna State?
2. What are the interventions that develop sustained interest in the students to choose agricultural career after secondary school in Kaduna State?
3. What are the extra-curricular approaches that develop sustained sustainable interest of students to choose agricultural career after secondary school in Kaduna State?
4. What are the familial approaches that develop sustainable sustained interests of students to choose agricultural career after secondary school in Kaduna State?
5. What are the governments based approaches that develop sustained interest of students to choose agricultural career after secondary school in Kaduna State?

1.5 Research Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

- H01: There is no significant difference in the mean of the responses of teachers and students on the teacher-based approaches for developing sustained interest of students to choose agricultural career after secondary school in Kaduna State.
- H02: There is no significant difference in the mean of the responses of teachers and students on the interventions for developing sustained interest of students to choose agricultural career after secondary school in Kaduna State.
- H03: There is no significant difference in the mean of the responses of teachers and students in the extra-curricular approaches that develop sustained interest of students to choose agricultural career after secondary school in Kaduna State.

H04: There is no significant difference in the mean of the responses of teachers and students on the familial approaches that develop sustained interest of students to choose agricultural career after secondary school in Kaduna State.

H05: There is no significant difference in the mean of the responses of teachers and students on the government based approaches that develop sustained interest of students to choose agricultural career after secondary school in Kaduna State

1.6 Significance of the Study

The findings of this research will be useful for youth organizations as it will create awareness for the youths of the immense potential available when agriculture is taken up as a career. It will also provide blueprint for policy makers on the type of agricultural information to disseminate to the youths to arouse their interest in agriculture. Teachers of agriculture will benefit from the study as they will plan their lesson to effectively teach agriculture using the right teaching method and teaching aids to arouse their students' interest in agriculture. Curriculum planners also will benefit from the findings of this research as they plan activities that will serve as the total learning experiences students would be exposed to.

1.7 Basic Assumptions of the Study

The following assumptions were made in this study:

1. Effective teaching of agricultural science by competent and qualified teacher will increase the number of secondary students who will choose agricultural careers after graduation.
2. Parents have a major influence in the career choice of their children.

3. Effective career counseling and observing role models can play a significant role in developing interest of secondary school students to choose agricultural careers after graduation.
4. The different levels of government in Nigeria are aware of the importance of agricultural development going by the antecedents of programmes in agriculture as such they will welcome any suggestion for enhanced awareness.

1.8 Delimitation of the Study

The study was delimited to agricultural science teachers and senior secondary school students who choose to offer agricultural science subject up to senior school certificate examination(SSCE) in the twelve educational division of Kaduna State. It was delimited to generating sustained interest in students to prepare them for agricultural career after graduating from secondary school in Kaduna state.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter was organized under the following sub-headings:

- 2.1 Theoretical Framework
- 2.2 Conceptual Framework
- 2.3 Careers in Agriculture
- 2.4 Teacher-Based Approaches for Developing Interest in Agriculture
- 2.5 School Interventions for Stimulating Interest in Agriculture
- 2.6 Extra Curricular Activities that Stimulate Interest in Agriculture
- 2.8 Familial Influence on the Choice of Agricultural Career
- 2.8 Government Programmes and Projects that Stimulates Interests in agriculture
- 2.9 Empirical Studies
- 2.10 Summary of Literature Reviewed

2.1 Theoretical Framework

To explain the career decision making process of youths in senior secondary school (SSS), a theoretical framework is needed that defines factors that influences career decision and identifies the role of family and socio- economic pressures of the society. Consequently, this study is based on the theoretical perspectives of Donald Super on career development and Lent and Brown theory of Social Cognitive Career Theory (SCCT).

Super (1980), views career development as a lifelong process encompassing developmental task for the individual as he negotiates the personal construction of self and the self relationship to the world. Super, posites that an individual progresses through five stages of career development; growth, exploration, establishment, maintenance and development.

The Growth Stage- The elementary school years encompasses developmental task in the growth stage, and include the following characteristics

- Recognizing and increasing personal control over one's life that is locus of control(LOC).
- Becoming concerned about the future, learning to plan for the future and acquiring competent work habits and a positive attitude and achievement in school and work.

The Exploration Stage- This is between the ages of 15 and 24 and focus is on exploring one's roles. At this stage, teens are starting to get jobs and making serious decisions that will have impact on their future. They try out different roles through classes, work experience and hobbies. They now possess the intellectual capacity and resources to explore ideas and childhood dreams. Tentative development and choices are now made.

The Establishment Stage- this is between the ages of 25 and 44. The focus is on establishing one's career; emphasis at this stage is on building entry level skill, skill acquisition, and stabilization through work experience.

The Maintenance Stage- This stage happens in the mid forties to mid sixties and is characterized by constancy either holding on (stagnation/plateauing) or keeping up (updating! enriching); continuity, stress, safety and stability tend to be the standard.

The Maturity/Disengagement Stage- This stage happens in the mid sixties and is typically characterized by decelerating from formal employment to finding new roles with a view to retirement. At this stage there may be a need to assist or mentor younger member's of society or seek self employment.

Super, maintains that positive development across nine dimensions would help children accomplish the necessary task in development and develop a self concept that embodies the capacity for good problem solving and decision making. These nine dimensions are;

Information: recognition of the importance of career information and knowledge of where to acquire such knowledge.

Curiosity: the need to learn more about the world.

Exploration: a drive to engage in experience that will teach the individual about self and the environment.

Interest: knowledge and awareness of an individual's like and dislike.

Locus of Control: the degree to which an individual maintain and control choices in the immediate environment, the present and the future.

Key figures: role models and significant persons who influences an individual's development.

Time perspective: an understanding of how the past, present and the future affect the choices and consequences of behavior.

Planning: knowing the importance of planning

Self concept: an identity encompassing roles and behavior within the context of relationship.

Social Cognitive Career Development Theory (SCCT): This theory is grounded in Bardura's (1986) social development theory which explores how career and academic interest mature, how career choices are developed and how these choices are turned into action. This is achieved through three primary tenets: self efficacy, outcome expectations, and goals.

Self- efficacy refers to the beliefs people have about their ability to successfully complete the steps required for a given task. Individuals develop their sense of self-efficacy from personal performance, learning by example, social interactions and how they feel in a situation.

Outcome expectations are the beliefs related to the consequences of performing a specific behavior. Typically, outcome expectations are formed through past experiences, either direct or vicarious, and the perceived results of these experiences.

Goals are seen as playing a primary role in behavior. A goal is defined as the decisions to begin a particular activity or future plan. Behavior is organized or sustained based on these previously set goals. (Lent et al,1994).

The social learning theory expounded by Lent and Brown takes into consideration how one's choice and action affect the outcome of a career choice goal. It takes into consideration additional factors of a person such as background, learning experiences and supports and barriers. This theory also considers how one's choices are influenced by their expectations, goals, and environmental influences all of which feed back into one's learning experiences.

The use of these two theoretical frameworks in this study, in considering a variety of factors that can develop sustained interest in a career, is important so that assumptions are not overstated and to give backing to the framework that career choice is based on the precept of career patterns being determined by socio-economic factors, mental and physical abilities, personal characteristics and the opportunities to which persons are exposed. People seek career satisfaction through work roles in which they can express themselves and implement and develop their self concept.

2.2 Conceptual Framework

In Lent and Brown's social cognitive career theory(SCCT), career interest are regulated by self- efficacy and an outcome expectation, which means people, will form lasting interests in activities when they experience personal competency and positive outcomes. On the contrary, a belief of low personal competency will lead people to avoid

activities. Perceived barriers such as those related to gender, ethnicity, age, socioeconomic pressures or family constraints may create negative outcome expectations, even when people have had previous interest in the given area. In secondary school, students can be helped to reconsider some of their perceptions of career, by providing activities and interventions to the student's options and their success rate at entry into college.

2.3 Careers in Agriculture

Career as a concept has been defined from different perspectives. Patton & (1999) defines career as the pattern of influences that coexist in an individual's life over time. Each individual undertaking the process of career choice is influenced by many factors, including personal aptitudes, educational attainment, the context in which they live (Ferry, 2006). Isaac and Nwalo (2007) assert that the choices of school subjects and career paths to follow are always difficult challenges facing youth at the senior secondary school level. Choosing the right subject combination leading to the right profession can be the difference between enjoying and detesting the career in future.

The National Policy on Education (NPE, 2004) identifies secondary education as the education provided after primary education and before the tertiary stage with the broad goal of preparing individuals for useful living within the society and higher education. In specific terms, it aims at offering a diversified curriculum to cater for the differences in talent, raise a generation of people who can think for themselves, respect the views and feelings of others, the dignity of labour, and appreciate these values in others and also to provide technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development.

To achieve these objectives, secondary education is of six years duration of two stages: junior secondary and senior secondary school, each of three years duration. At the senior secondary school stage, each student is expected to take six core subjects and at

least vocational elective among which is agricultural science. At this level, agricultural education is targeted at achieving the following objectives according to Olaitan (1989):

1. Provide students with adequate skills to make a living and progressively advance in a chosen career in agriculture.
2. Advance food production through improvement of agricultural production techniques in secondary school students.
3. Provide occupational entry level skills in agriculture to interested secondary school students.
4. Prepare secondary school students for conservation of soil and other natural resources.
5. Prepare secondary school students adequately for producing and marketing farm commodities efficiently.

Agriculture today is not only restricted to farming but diversified into different areas of specialization. Ministerial Council on Fisheries and Aquaculture (MCFFA, 2011) categorized agricultural career into the following eight categories:

- a. Production agriculture: This involves raising field crops, poultry, fruit, vegetables, livestock, aqua-culture, dairy and equine science.
- b. Agricultural mechanics: This involves farmstead planning, farm layout, machinery maintenance, farm power and irrigation.
- c. Agricultural sales and service: Involves occupation such as equipment dealers, feed dealers, agro-chemical sales and other farm input distribution.
- d. Agricultural processing: Involves processing and distribution of food, such as butchers, food processing, plant and feed mills.
- e. Horticulture: Involves career in landscaping, floriculture, turf and nursery management.
- f. Forestry: involves producing and harvesting timber, managing forest, reforestation and wildlife management
- g. Recreation and natural resources: involves working with renewable resources; example, wildlife management, water and soil conservation, state and national park maintenance.
- h. Agricultural marketing and business management: involves business economies, developing markets and successful market.

Egun (2009) asserts that exposure of all aspects of agriculture to people can convert at least 45 percent of able bodied men that are unemployed into productive labour force. Since Nigeria is endowed with agricultural land space, it is necessary to direct agricultural practices in a manner that the ultimate goal of self sufficiency in food is attained. This can be attained

through consistent induction of youths into agriculture and increasing human labour involved in agriculture. Egun (2009) further advocates for the government to expose youths to the various occupations in training centres in order to expand the frontiers beyond traditional area of crop and animal husbandry.

2.4 Teacher Based Approaches for Developing Interest in Agriculture

Brown and Stewart (1993) assert that to implement programmes to improve the agricultural knowledge and attitude of individual from kindergarten through the adult level there must be a national move to deliver these programmes through the public school system through incorporating agricultural information into the present curriculum and complete courses about culture. Hughes and Barrick (1993) opine that agricultural education takes place within the context of the school and the community and is composed of four components:

- a. Classroom and laboratory instruction
- b. Application
- c. Employment/additional education
- d. Career

Classroom and laboratory instruction focuses on technical agriculture, leadership and personal development. Supervised experience and school club like the FFA provide experiential learning opportunities and reinforces instruction, motivate students and provide means of identifying problems and also form the basis for instruction coupled with incentives such as scholarship and awards. Rickettes and Rudds (2002) recommended that agriculture education should be comprehensive and based on principles related to the following factors:

- a. Subject matter must possess meaning, organization and structure
- b. Students must be motivated to learn by taking into account their interests, desires, needs and aspirations.
- c. Students should inquire into subject matter being instructed by interaction.

Ryken (2006) opines that the goal of career education should be aligned to career ambition. For any nation to maintain and improve its position in food production, today's youth who are tomorrow's workforce must be involved. This can be achieved through their participating in activities that promote the development of civic responsibility and workplace competencies as they become involved with their school and community. They can also be introduced to experiences that are innovative and perceived as relevant to their career aspirations. Quality education of the child according to Elaigwu (2006) is a right which every society must respect. It gives opportunities and power without which man is merely a splendid slave and a reasoning savage (Nwagwu, 1976). Education is the determining factor to quality human resources which invariably is the foundation of societal development Amaele and Amaele (2005). Education serves as a catalyst for national development and survival; it is also the tool to address critical issues such as the dignity of labour, quality leadership, industrial harmony, political stability, religious tolerance, national unity and integration among others.

Abolaji (1988) notes that the agricultural science curriculum in Nigeria is primarily concerned with academic preparation for entry into university while neglecting vocational or occupational preparation which ought not to be so considering the noble role agriculture plays in the economy of the nation. It is therefore necessary to direct the teaching of the subject in a manner that the ultimate objectives of self sufficiency in food is attained through gradual but consistent induction of the youth into agriculture and increasing the production capacities of human labour involved in agriculture (Egun, 2009).

The teacher is the bedrock on which developing sustainable interest in agriculture lies as what he or she does or does not do go a long way to reflect on the quality of students that will pass through his hands. Hill (1988) states that a holistic teacher's approach to develop students' interest includes several parts such as teaching methods, curriculum materials and

design. Teaching of agriculture according to Olaitan (1989) is regarded as the effort of the teacher to direct the learning process to the extent that desired and desirable changes occur in the pupils' attitude towards agriculture. Olaitan (1989) further expressed that a successful teacher is one who teaches effectively making use of his acquired professional experience to present information and instruction and organizes materials for pupils. National Future Farmers of America (FFA, 2010) organisation noted that the teacher of agriculture keeps all aspects of agriculture in mind when developing a programme of learning for students' he or she is an expert at cross-curricular relating many subjects' areas to agricultural studies.

The agricultural science teacher has an array of instructional technique to choose from, Ochu & Ochu (2006) report that the lecture, discussion, projects (individual and groups), demonstration, question and answer, role playing, problem solving, practical work, simulations, printed instructions and field trip techniques are very suitable instruction techniques to adopt in the teaching of agricultural science. The process and purpose of the learning activities is to consistently align the students' knowledge and desired outcomes, focus should be on students needs to improve interest, motivation and retention of material (Arnold, Warner and Osborne, 2006). Instructional methods such as the project method, demonstration method are synonymous to hands on activities. They lead to better understanding of subject concepts, provide concrete, critical thinking, and problem-solving behaviour (Mabie and Baker 1996). Agricultural education has always had a strong orientation toward learning by doing or experiential learning (Zilbert and Leske, 1989). Learning by doing offers students the opportunity to utilize principles learned in class and apply them in real life situations. It also afford the students learning to use their minds and exploring learning by themselves .The teacher is an essential element to successful experiential learning as they encourage the students interaction with their environment to improve learning and comprehension.

Perrit and Morton (1990) report that most youngsters in urban and sub-urban areas receive little exposure to agriculture and advocated that one of the growing responsibilities that agricultural educators faces is to develop a positive associations with agriculturist in the public sector and exposing their students to experiences that will add value to classroom discussion through field trip. Ribichi, (1995) stresses, that fusion of theory and practice is an action that require a strong connection between the college and the real world in the community. Secretary's Commission on Achieving Necessary Skills (SCANS) (1991) emphasized the need for schools to prepare students for productive future employment. SCANS through survey of business owners, public employers unions and employees have established that future occupations will depend on a highly competent workforce with a well-developed mind, a passion to learn and the ability to put knowledge to work.

Moore (1988) sees the project method as one that gives the pupils occasion to think and acquire new skills and that a carefully planned and executed classroom instruction creates and sustains high interest of students in a topic or subject. Projects can be organized in crop production techniques, livestock management, cooperatives and processing of crops; in order to achieve the Millennium Development Goal of better environment and education for all in 2015. Babalola (2007) reports that there is a strong need for an innovative approach to teaching children and those issues such as urban migration, food insecurity and massive youth unemployment which are worrisome issues calls for urgent action.

2.5 School Interventions Stimulating Interest in Agriculture

Intervention literally means becoming involved in a situation to change its course. In today's agricultural industry survival according to Fedale (1987) often depends on having an edge on information related to use of new innovative farming practices. The Nigerian government over many decades had come up with many programmes to revive agricultural

development, and in the process had solicited for intervention from many quarters, the private sector, non-governmental organization, community based organization and public spirited individuals. Many have responded by intervening in one form or the other. In this study, focus is on the role of mentorship in agricultural renaissance through involving the youth.

Mentorship refers to a personal developmental relationship in which a more experienced or more knowledgeable person helps a less experienced or less knowledgeable person (Wikipedia, 2011) Mentoring is a process that always involves communication and is a process for the informal transmission of knowledge, social capital and the psycho-social support perceived by the recipient as relevant to career development. Wikipedia further identified the importance of mentorship in education, as offering support to students in programme completion, building confidence in them for transition to further education or the work force.

Mentoring is a tool that organizations use to train their staff. It can be an informal practice or a formal programme where protégés observe, question and explore while mentors demonstrate, explain and model. The mentor promotes capacity building through methods such as instructions, coaching, providing experiences, modeling and advising. Mentors are leaders of a learning experience who need to share their experiences and failures. In addition to these, Ayers (2010) identifies the following as characteristics of a good mentor:

- a. Has a desire to help others, and has positive experiences to share with others.
- b. Has a good reputation for developing others.
- c. One with time and mental energy which he or she is ready to devote to a relationship with others.
- d. Someone who is up to date in knowledge and relevant technology and skill in a specific discipline.
- e. An individual who is willing and able to learn and see the potential benefit of a mentoring relationship.
- f. Readily demonstrate effective managerial mentoring skill through coaching, counseling, facilitating and networking skill.

The coordinator of a Non-Governmental Organization, TolaSummonu (2009) speaking about the objective of the organization; global Harambe Endeavour alliance an international association in Nigeria said; it was on a mission to revolutionize the way the Nigerian youth engage in agriculture by nurturing them into agro-entrepreneurs and leaders by embarking on the following:

1. Bring to limelight the unharnessed potential available within the field of agriculture.
2. Actively transforms the negative image surrounding agriculture into a positive image that is appealing to the Nigerian youth.
3. Organize agricultural job fair.
4. Bring on board keynote speakers, and panels for brainstorming sessions and extensive opportunities for networking.

A Nigerian minister of agriculture Sheikh Abdallah (2010) states that the government's quest for development in food security and vision 20:2020 can only be realized through collaboration and partnership with countries that have attained greatness in food sufficiency, through technology transfer and courses on technical and economic development.

Areas of possible intervention in secondary school agricultural science are:

1. Helping the school to establish school farm.
2. Helping the school to establish school poultry.
3. Establishing agricultural science laboratories, workshops and library
4. Career counseling with regard to agricultural career.
5. Assistance in developing programme in specialized topics and teaching methods for teachers of agriculture.

2.6 Extra Curricula Activities that Stimulates Interest in Agriculture

According to Dobbins (1999) meaningful agricultural education consists of three essential and interdependent components; namely:

1. Classroom and laboratory instruction
2. Supervised agricultural experience, and
3. The Future Farmers of America (FFA)

From the foregoing, it is imperative to inculcate extracurricular activities into regular academic programme for the wholesome development of the students.

Extracurricular activities as defined by Wikipedia are activities performed by students that fall outside the realm of the normal curriculum of school; such activities are generally voluntary as opposed to mandatory, non-payment of levies, social, philanthropic as opposed to scholastic. It involves people of the same age. Students form youth organizations under the guidance of a leader for the purpose of capacity building. Students in Senior Secondary School fall under the category of youths, a period Onuekwusi and Effiong (2002) identifies as a period in an individual's life between childhood and entry into the world of work. It is seen as a universal stage of development. The youths are a vital source of manpower development (Oluyide, 2008). Youths are rightly seen as leaders of tomorrow and constitute the major resource base for any country that want to embark on any meaningful developmental project.

The kind of education formal or informal that youths are exposed to or have access to will determine the nations' overall development. Extra curricular activities afford the youth in the school community the advantages that promote optimal healthy development of body, mind and spirit. Other benefits afforded the youths include:

- a. Opportunities to experience positive stimulation for growth;
- b. Adequate provision for socializing and education through deliberate and skillfully implemented programmes;
- c. Opportunity to see agriculture as a dignified profession from which people can earn a decent living.

2.7 Familial Influences on Choice of Agricultural Career

Youths are regarded as the greatest investment for a country's development and are one of the greatest assets that any nation can have. The extent of their vitality, responsible conduct and roles in any community is positively correlated with the development of that community. Youths through interaction within the context of family, school and community learn about and explore careers that ultimately lead to career choice. The interdependence of family, school and community culture plays a critical role in shaping the youth's occupational choice. Parents provide valuable learning experiences through their role as models, and supporting activities that assist in exploring career interest (Savickas, 1997). Parents through their educational expectations and perceptions of occupational appropriateness are found to have key roles to play in the shaping of their children's career choices.

Babalola (2007) states that unenlightened and low class parents would want to encourage their wards to migrate to the cities or go to higher institution to escape the rural community. Even farming families, Babalola (2007) further expressed, abhor the poverty cycle in which they believe they are trapped due to the subsistence nature of their operations and so encourage their children to tow the lines of other career perceived to be more lucrative. This has led to the loss of agricultural labour force and fewer young farmers.

Educational background of parents influences their children's educational pursuit and career choice. Parents based on their level of experiences, have a mindset of what career they would want their children to pursue. Coleman (1990) identifies the importance of social relationship within the family and its effect on the academic achievement and revealed the relevance of this relationship to the creation of human capital. Parents create a climate of trust and discipline which is beneficial for children's learning progress. Another positive effect of good rapport between children and their parents is a more efficient support in school related

mater and an exchange of information relevant for academic achievement. A cordial relationship with parents also results in establishing shared norms and values (Schmitt and Kleine 2010).

Taylor J, Harris M, and Taylor S (2004) suggests that family interaction is linked to occupational behaviour, incorporating parenting style (authoritarian and passive), level of support, guidance and responsiveness may have more influence on career development than demographic and educational aspirations of the parents.

Establishment of norms and expectations from parents has influence on academic success. Parental involvement in school like volunteering or attending parent teacher conferences predict academic success and invariably the chances of their children enrolling in post-secondary education (Perna and Titus, 2005).

Parents convey their influence to their children through interactions such as conversations and through their reactions both verbal and non-verbal; this then affects what children think, say and perceive about various careers. Without parental approval or support, students and young adults are often reluctant to pursue or explore diverse career possibilities. Parents may also become overly involved in career decisions because they want their children to be more content in a career than they are on their own jobs. A parent for instance may comment that it is acceptable to pursue a position with a non-profit agency and also comment about low pay and long hours implying that it is important to earn a high salary than to pursue a satisfying position. Children may begin to identify and accept what parents say in order to please them and take their parents comments as absolute and in the process neglect to challenge them or assess their validity.

The role of parents in their children's career choice cannot be overemphasized it is therefore paramount that the parent's ambition should be based on the following criteria:

1. They must have detailed account of career information that may interest their children.
2. Career choice though most times is based o job market demand should also be combined with the children's interest and abilities.
3. They should also be conscious of how they pass their message of consent or not as it has significant influence on the children.

2.8 Government Programmes and Projects that Stimulate Interest in Agriculture

According to Anugwa (2006) there is no country that has become developed without well educated people and a strong agricultural base that provides food security. A well harnessed agricultural education system, Anugwa opines is a prerequisite for sustained agricultural production in Nigeria in the 21u century. There is therefore the need to produce a crop of dedicated, well-trained men and women who are committed to achieving agricultural development through improved effective teaching, and research.

The government, on its part has diverse roles to play to promote agricultural development notable are the following:

1. The government must consistently provide adequate funding, sustained political will and policy stability in the economy and the educational system. Lindley,Crowther, and Doron (1996) have identified low level of funding allocated to agriculture as a major constraint to agricultural education in African countries.
2. Idachaba (1991) stressed that government should focus on increased support for rural infrastructure, agricultural research and extension, market information dissemination and agricultural education. Furthermore, he stated that government should guide against direct involvement in production and distribution activities.

3. Government should provide a conducive policy environment, policies, and facilitating rules, regulations and standards which are regime-neutral and therefore stable.
4. Government must patronize indigenous expertise and assign them new role such as agricultural research and extension and agricultural education.

Omotayo and Erinle (2007) identified some important roles to be played by the government to reposition human resource development in agriculture as:

1. Planning to guarantee improvement and technical competence of the workforce.
2. Enhancement of diagnostic skill to detect problem sin the sector
3. Effective communication skills of research findings.
4. Team work and synergy among all categories of people in the sector; trainees, research institutions and the executors of findings.

The government should focus on the development of the agricultural sector through enlightenment campaign focusing on new technologies available in the field of agriculture using the mass media, sponsorship and scholarship to undergraduate or technicians to acquire hands on training in advanced agriculture countries to learn modern techniques of farming.

Other incentives include:

1. Equipping the schools with necessary equipment such as agricultural laboratory and input into the school farm.
2. Experimental farming programmes directed towards the youth and extension service to buttress theoretical concepts learnt in the classroom.
3. Identify opportunities for employment on government demonstration farm.
4. Connecting youths with existing opportunities for assistance to sources of loan, subsidies on farm input and land grant all aimed at encouraging them.
5. Government in conjunction with youth organization could organize agricultural show, skill training workshop to improve methods of agricultural production and marketing.
6. To curb the allure of urban areas, the government should develop the rural area through providing social amenities like electricity, good feeder roads, and pipe borne water, provision of health centres and equipping it with drugs, building modern

processing plants and provision of improved seeds, agro-chemicals and extension agents.

7. Involving the business community in the creation of opportunities for mentorship, apprenticeship and information sharing.
8. Making use of information communication technology to demonstrate that youths in agriculture are valued and that government cares about them and value them.

2.9 Empirical Studies

Taylor, Harris and Taylor 's (2004) study on parents have their say; on the question of how much influence should a parent have on their child's career development revealed that 45.4 percent suggested that they should have very little influence on their children's career decisions, 8.1 percent suggested that they would have a great influence. 72.2 percent of the respondents believe that parents should base the career choice of their children upon a combination of interest, abilities and the job market. Respondents, when asked to rank the top three influential people in their children's career development chose the teacher first with the parent also ranking in that order with the counselor never ranked in the first slot confirming what the researcher in this present study stated about the teacher and the parents having a stake in their ward's career choice.

Ochu and Ochu (2006)'s study of mechanism for accelerating youths vocational choice of agricultural and chemistry education occupation, in their findings reveal that youths, teachers and administrators were aware of the relevance of professionals of agriculture and chemistry. Finding also show that the curricular modular of the senior secondary school agricultural science and chemistry was very adequate for sustainable development in these discipline. It also identified the constraints militating against youth vocational choice of agriculture and chemistry occupation affirming the present research variable that if the teacher is competent and zealous about the teaching of the curriculum content, sustained interest would be developed towards agriculture.

In a Cheek and McGhee (1990) study of graduates' perceptions of students extracurricular organization, responses were evaluated and then used to determine if there were any benefits of being involved in extracurricular organization. Cheek and McGhee (1990) in their findings concluded that 36.1percent of the graduates were involved in organizations as students and their participation and involvement helped them to work well with people after graduation and entering the work force. Other findings revealed that

* 77 percent were helped to understand agricultural education/vocational agriculture more.

*75 percent agreed that it helped them develop leadership skills

* 80 percent revealed it helped them accept and carry out responsibility

* 86 percent submitted it helped them work with others

* 64 percent agreed that it helped them develop job skills

*61 percent were of the opinion that it made them aware of career possibilities

All of these findings confirm all that this present research has identified as benefits of agricultural based extracurricular youth clubs in secondary schools

Agbulu and Idu (2008) conducted a study on the impact of participatory and expository approaches on learning of agricultural science in senior secondary schools in Benue State. The study assessed the effectiveness of participatory and expository approaches in teaching agriculture to SSS 3 Students. Experimental research design was used and data collection was effected through the administration of a pre-test and post-test of a psycho production evaluation test. The sample size of 50 respondents was drawn through stratifiedsampling from two schools with a population size of 1021.

Three null hypotheses were tested using the t-test statistic, and the findings of the study revealed that the participatory approach was more effective in the teaching of agricultural science than the expository. The similarities in the past study and the present are that they both used the same population senior secondary agricultural science students, the same statistical tool was used for testing the null hypotheses the t-test, the findings on the effectiveness of participatory method of teaching agricultural science was also similar to one of the approaches examined by this present study that can develop sustainable interest in agricultural career. The differences between the two studies however are; in the past study, population of study was restricted to year three students in the senior secondary school while the present study considered senior secondary school students from year one to three offering agricultural science. The past study was delimited to comparing the participatory and the expository approaches of teaching agricultural science whereas the present study considered other approaches that can develop sustainable interest in students towards agricultural career. The study is in agreement with the present research as it focused on teaching agricultural science to senior secondary school students effectively to sustain their interest.

Fizer (2013) conducted a study on factors affecting career choices of college students enrolled in agriculture. The study population consisted of agriculture freshmen from the University of Tennessee. A total of 128 freshmen were used. Data information were collected using the questionnaire and data analysis was carried out using chi-square and Fisher's exact test at 0.10 level of significance. The findings reveal that out of 128 students sampled 60% were female and 40% were male. The largest number of surveyed respondents projected their career path to be veterinarian followed by agribusiness. 72% of the students participated in both FFA and 4-H while 25% did not. Most of the respondents indicated that FFA influenced them when choosing their major. Other findings indicated that factors that influenced students career choice the most was family (27%), FFA and 4-H (20%), personally rewarding (21%)

while other factors such as job opportunities, teachers, campus visits, friends, income potentials and guidance counseling were the most influential in their choice of agriculture as a major. Similar to this study is the age of the population, 17 to 18 years of age showing them to be in their youth. Data collection instrument was also the questionnaire and common variables identified as developing sustainable interest in this particular study such as family, participation in FFA, counseling and teachers were common to the two research. The differences between the two researchers however are, the past researcher used 128 respondents as sample size and the research was carried out in Tennessee whereas the present was in Kaduna State Nigeria and sample size for this was 493. The past research did not state any null hypothesis while the present stated five and analyzed using t-test statistic at 0.05 level of significance.

2.10 Summary of Literature Reviewed

The literature showed that individual interest predisposes the individual to what he pays attention to, and interest as a concept is something that can be aroused through adopting approaches that literature has proved effective. In this study, such approaches considered effective for developing sustained interest in students to choose agriculture as a career are: the approaches adopted by the teacher in preparing the instruction, the teacher's zeal, competence and his disposition towards the student and the community.

Other approaches considered were intervention from public spirited individuals, mentors, non-governmental agencies and sharing of experiences with other countries through collaboration. Other issues considered were role of the school community in helping to develop the children's interest. Extracurricular activities, family influence and government programmes that can stimulate the student's interest in agriculture were also considered. School clubs such as the young farmers club have been positively identified with developing

student's interest in agriculture. The parents also have been identified as having a role to play. Through their interaction with the school, they become acquainted with government's policy thrust and they advise their children accordingly.

The government has been identified as having a crucial role to play through creating a conducive and favorable environment for agricultural career to thrive by developing policies that would remove the stigma with which the youths associate agriculture. This study however, went further to identify the issues associated with the youths' distaste for agriculture and why youths from farming communities migrate to urban areas and reviewed the need for developing the rural community and thereby make it attractive for the youth to stay put and inject their vigor into farming.

In conclusion, this study identified the varieties of agricultural career and the need to expose the students to the expanded market in agriculture such as animal science, crop production, soil science, agro business and agricultural engineering.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter presented the method adopted for the study under the following sub-headings.

- 3.1 Research Design
- 3.2 Population of the Study
- 3.3 Sample Size and Sampling Procedure
- 3.4.1 Validity of the Instrument
- 3.4.2 Pilot Study
- 3.4.3 Reliability of the Instrument
- 3.4 Instrument for Data Collection
- 3.5 Procedure for Data Collection
- 3.6 Procedure for Data Analysis

3.1 Research Design

The study adopted survey research design. It was a valuable tool for assessing opinions and trends as it reflects the views of a genuine cross-section of the population (Shuttleworth 2008). The descriptive survey method was ideal for this study as data were generated from a large number of respondents.

3.2 Population of the Study

The population for this study consisted of all agricultural science teachers and students in senior secondary schools in the 12 educational divisions of Kaduna State. A total of 6,011 individuals were identified as being eligible for inclusion in the study. The population comprised of 204 teachers and 5,807 students. (Table 3.1)

Table 3. 1: Population and Sample Size of the Study

S/N	Educational division	Teachers population	Students population	Total population	Sample of Teachers	Sample of Students	Total Sample
1.	Kaduna	20	692	712	12	48	60
2.	Sabon Tasha	19	642	661	11	44	55
3.	Kafanchan	18	502	520	10	33	43
4.	BirninGwari	18	491	509	11	31	42
5.	Zaria	18	482	500	12	31	42
6.	Giwa	16	464	480	11	28	39
7.	Lere	15	460	475	11	28	39
8.	Anchau	14	443	457	11	26	37
9.	Zonkwa	18	432	450	11	25	36
10.	Rigachikun	15	385	400	11	21	32
11.	Kachia	17	418	435	11	24	35
12.	Goddogodo	16	396	412	11	21	33
Total		204	5,807	6,011	133	360	493

3.3 Sample Size and Sampling Procedure

A sample size of 493 was drawn using the stratified proportionate random sampling technique. To select the sample size, the researcher cut 204 pieces of paper with 133 carrying “YES” inscription and 71 carrying “NO” for the teacher’s population. The same was done for the students population in which 5807 pieces of paper was cut, with 360 having “YES” and 5,447 having “NO” on them. The “YES” represented sample size required for the study. Each zone was regarded as a stratum from which the specific number of sample was selected proportionately. To select teachers’ sample, 60% of the population in each educational zone

was used as suggested by Olayiwola (2010). The total sample for teacher was consequently 133. For students, 7.0% of the population was used to select the sample size from each educational zone as suggested by Afolabi (2014). The total sample of student was consequently 360 (Table 3.1).

3.4 Instrument for Data Collection

Structured questionnaire was used for data collection and was developed by the researcher. The questionnaire was divided into two sections ‘A’ and ‘B’. Section ‘A’ sought to know the status of respondents if they be teacher or student while Section ‘B’ had 27 rating questions designed to elicit information on the issues identified in the specific objectives. Respondents were expected to tick the most suitable applicable to them from these options.

Strongly Agree	-	SA
Agree	-	A
Disagree	-	D
Strongly Disagree	-	SD

3.4.1 Validity of the Instrument

For the content validity of the instrument, the researcher gave four copies of the draft questionnaire to agricultural education experts in the Department of Vocational and Technical Education, Ahmadu Bello University Zaria for scrutiny and possible suggestions. On the basis of their expert inputs, a well structured questionnaire consisting of two questions on demographic variables and another section consisting of 27 questions was produced for data collection from the respondents.

3.4.2 Pilot Study

A pilot study was conducted to ascertain the reliability of items before the actual administration of the questionnaire for the study. Forty copies of questionnaire were administered to respondents at Government Secondary School Funtua. A school in Katsina

State was used because it was not among the selected schools for the final study but shared similar characteristics in almost all respect. The questionnaire were distributed and retrieved by the researcher to test for the reliability of the instrument.

3.4.3 Reliability of the Instrument

Data collected were statistically analyzed to determine the reliability co-efficient using the Cronbach's Alpha (Appendix c). Consequently, reliability co-efficient of 0.88 was obtained. This reliability co-efficient was considered adequate for the internal consistencies of the instruments. This was a confirmation of test of reliability by Spiegel (1992) and Stevens (1986) who hold the view that an instrument was considered reliable if its reliability coefficient lies between 0 and 1 and that the closer the calculated reliability coefficient is to zero, the less reliable is the instrument and the closer the calculated reliability co-efficient is to 1, the more reliable is the instrument. Therefore this data collection instrument was considered highly reliable for the study.

3.5 Procedure for Data Collection

Data collection was effected using the structured questionnaire. The researcher obtained a letter of introduction from the Department of Vocational and Technical Education in the Faculty of Education to the principals of the target schools in the 12 educational zones {see appendix A}.The researcher visited each school and engaged the assistance of the agricultural science teachers in each schools who were trained on how to complete the questionnaire. A total number of 493 was administered in all the zones. After a week interval the researcher went back to each of the schools and collected them back for further analysis with a loss of three copies.

3.6 Procedure for Data Analysis

Data analyses were accomplished using mean and standard deviation for answering all five research questions, while t-test statistic was used for testing all the null hypotheses at 0.05 level of significance. Decision rule for responses of the questionnaire items was based on regarding any response receiving a mean score rating of 2.50 and above as agreed while any mean score rating below 2.50 was regarded as disagreed. For the t-test, when the calculated t- is less than the critical t-, the null hypotheses would be accepted, and if otherwise it would be rejected.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

This chapter presents the results of data analysis used to answer the five research questions and the five null hypotheses. The mean and standard deviation were used in answering the research questions while the t—test statistic was used in testing the Null hypotheses at an alpha level of 0.05.

4.1 Findings related to Research Questions

Table 4.1 to 4.5 presented the results of data analysis related to the five research questions

Research question one: What are the teacher-based approaches for developing sustained Interest in the students to choose agricultural career after secondary School in Kaduna State?

Table 4.1: Analysis of teacher based approaches for developing sustained interest in students preparing for agricultural career after secondary school in Kaduna State.

N= 490				
S/N	Questionnaires item	Mean	Std	Remark
1.	The classroom teacher through instruction in agriculture can motivate the student and arouse their interest.	2.55	1.24	Agreed
2.	The competence and zeal of the teacher is very important in imparting knowledge that would arouse the students interest in the topic being taught.	2.50	1.21	Agreed
3.	Using different teaching methods is crucial to Sustain students interest in a subject	2.92	1.22	Agreed
4.	Field trip to places of interest like university farm Enhance practical knowledge of what has been learnt in theory creating lasting impression on students to the point of arousing their interest in Agriculture	3.08	1.29	Agreed
5.	Farm practical in the school farm does provide Interesting experience and has helped in clarifying Classroom instruction better	3.05	1.27	Agreed
6.	It is important that Agricultural science teacher should as well be a career counselor to encourage student in Agricultural career through organizing career talk shop and use visual aids like video films of well established farms	2.68	1.21	Agreed

Table 4.1 revealed that the mean scores of each of the six items were greater than or equal to 2.50. This shows that respondents agreed that teacher based approaches develop sustained interest in students to choose agricultural career after secondary school in Kaduna State. Ranking by mean, the teacher based approach the respondents rated as most effective in developing sustained interest in agriculture is embarking on field trip to a modern farm with a mean of 3.08 out of 4.00. The standard deviation of all the items shows that the individual responses on average were a little over one point away from the mean. The teacher based approach rated as the least in developing sustained interest in agriculture by respondents is the competence and zeal of the agricultural science teacher with a mean of 2.50 out of 4.00.

Research question two: What are the interventions that develop sustained interest in the students to choose agricultural career after secondary school in Kaduna State?

Analysis of data used to ascertain interventions that develop sustained interest instudents is presented in Table 4.2.

Table 4.2 Analysis of interventions that develop sustained interest in the students to choose agricultural career after secondary school in Kaduna State

S/N	Questionnaire item	Mean	Std. Dev	Remark
1.	Prominent individuals in agriculture or groups can act as mentors as they interact with the school to carry out awareness campaign and other agricultural projects.	2.50	1.19	Agreed
2.	Well documented information statistics regarding those who are succeeding in agricultural career is easily assessable to the students.	2.95	1.35	Agreed
3.	The immediate community Where the school is located through community efforts have a part to play in contributing to the agricultural programme of the school.	2.69	1.10	Agreed
4.	There is need to expose the students to information about career in agriculture and its importance.	3.28	1.21	Agreed
5.	Collaboration between the school and other agencies involved in agricultural program will go a long way to arouse student interest in agriculture.	2.62	1.08	Agreed

Table 4.2 reveals that the mean scores of each of the five items were greater than or equal to the 2.5. This shows that respondents agreed that intervention based approaches develop sustainable interest in students to choose agricultural career after secondary school in Kaduna State. Ranking by mean, the intervention based approach the respondents rated as most effective in developing sustained interest in agriculture is exposing students to opportunity that would give them access to information about the importance of agriculture with a mean of 3.28 out of 4.00. The intervention based approach rated as the least in developing sustained interest in agriculture by respondents is the interaction of mentors and role models in the school agricultural programmes with a mean of 2.50 out of 4.00. The standard deviation of all the items shows that the individual responses on average were a little over one point away from the mean.

Research Question Three: What are the extra-curricular approaches that develop sustained interest in students to choose agricultural career after secondary school in Kaduna State?

The analysis of data used to determine the extra-curricular approaches that help to develop sustained interest of students to choose agricultural career after secondary school in Kaduna State is presented in Table 4.3

4.3: Analysis of extra-curricular approaches that develop sustained interest in students to choose agricultural career

N=490				
S/N	Questionnaire item	Mean	Std. Dev	Remark
1.	Youth organizations in schools such as the Young farmers club can greatly influence perception of agriculture through undertaking of projects and team work.	2.92	1.12	Agreed
2.	Agricultural youth clubs provide the forum for evaluating youths perception of agricultural career and correcting any misgiving.	2.94	1.35	Agreed
3.	Agricultural youth clubs in secondary school can advance food production through keeping youths informed of agricultural production techniques	2.64	1.10	Agreed
4.	Through extracurricular activities values and appreciation of the worth of agricultural career can easily be passed onto the youth	2.68	1.21	Agreed
5.	The opportunity youth leadership organization offer the students to direct their own programmes lead to exploring aspects agricultural programmes where their interest reposes.	2.43	1.08	Disagreed

The analysis of data presented in table 4.3 reveals that the mean scores of four of the items were greater than 2.5. This shows that respondents agreed that extra- curricular approaches develop sustained interest in student to choose agricultural career after secondary school in Kaduna State. Ranking by mean the extracurricular based approach the respondents rated as most effective in developing sustained interest in agriculture is using youth clubs as a forum

for evaluating youth's perception of agricultural career with a mean of 2.94 out of 4.00. Questionnaire item 16 had a mean score of 2.43 which reveals that respondents disagreed with that approach as developing sustained interest in students to choose agriculture as a career after secondary school in Kaduna State. The standard deviation of all the items shows that the individual responses on average were a little over one point away from the mean.

Research Question Four: What are the familial approaches that develop sustained interests of students to choose agricultural career after secondary School in Kaduna State?

Table 4.4: Analysis of familial approaches that develop sustained interest of students to choose agricultural career

N= 490

S/N	Questionnaire item	Mean	Std Dev	Remark
1.	Parents through their educational expectations and perceptions of occupational appropriateness can counsel on career choice.	3.26	1.30	Agreed
2.	Parents should base the choice of academic subjects for their wards on their performances in these subjects .	2.94	1.27	Agreed
3.	The opportunity of working in the family business after secondary school should not foreclose interest in other career.	2.69	1.10	Agreed
4.	Career decision should be based on interest rather than at parents instance.	2.68	1.25	Agreed

Table 4.4 reveals that the mean scores of each of the four items were greater than 2.5. This shows that respondents agreed that family based approaches develop sustained interest in student to choose agricultural career after secondary school in Kaduna State. Ranking by mean the familial based approach the respondents rated as most effective in developing sustained interest in agriculture is item 17 which states that parents through their educational expectations and perceptions of occupational appropriateness can counsel on career choice with a mean of 3.26 out of 4.00. The family based approach rated as the least in developing sustained interest in agriculture by respondents is the assertion that career decision should be

based on interest rather than at parents instance with a mean of 2.68 out of 4.00 The standard deviation of all the items shows that the individual responses on average were a little over one point away from the mean.

Research Question Five: What are the government based approaches that develop sustained interest in students to choose agricultural career after secondary school in Kaduna State?

Table 4.5: Analysis of government based approaches that develop sustained interest of students to choose agricultural career.

N=490				
S/N	Questionnaire item	Mean	Std. Dev	Remark
1.	The state government is giving adequate priority to agriculture and encouraging youths into agriculture	2.46	1.25	Disagreed
2.	Through proper development of the rural area by providing modern infrastructure, migration of youths from farming to urban areas will be reduced	3.38	1.35	Agreed
3.	With the right incentive like scholarship the government can develop students interest in agricultural career	2.26	0.98	Disagreed
4.	Agricultural career can be made attractive Through government bestowing national honours on successful individuals engaged in agricultural career	2.50	1.03	Agreed
5.	Consistency in the campaign on diversifying the economy through agricultural development will arouse interest of the students	3.32	1.35	Agreed
6.	Ensuring sufficient staff motivation through Welfare packages such as in service training and adequate remuneration would impact on the zeal of the teachers	2.69	1.30	Agreed
7.	Government through collaboration with other countries can imbibe new ideas to get the youths into agriculture	2.68	1.10	Agreed

Table 4.5 reveals that the mean scores of five items were greater than 2.5. This shows that respondents agreed government based approaches develop sustained interest in student to choose agricultural career after secondary school in Kaduna State. Ranking by mean the government based approach the respondents rated as most effective in developing sustained interest in agriculture is item 2 which states that through proper development of the rural area, providing modern infrastructure, migration of youths will be reduced with a mean of 3.38 out of 4.00. Questionnaire items 1 and 3 had a mean score of 2.46 and 2.26 which reveals that respondents disagreed with those approaches as developing sustained interest in students to choose agriculture as a career after secondary school in Kaduna State.

4.3 Test of Null Hypotheses

Results of the test of null hypotheses are as presented in Table 4.6 to 4.10

Hypothesis One: There is no significant difference in the mean of the responses of teachers and students on the teacher-based approaches for developing sustained interest of students to choose agricultural career after secondary school in Kaduna State.

The test of null hypothesis one is presented in Table 4.7

Table 4.6: t- Test analysis on difference of teachers and students perceptions of teacher-based approaches for developing sustained interest of students to choose agricultural career after secondary school in Kaduna State

Groups	N	Mean	Std Dev	Std.Error Mean	t-cal	t-value	Df	Sig. (2-tailed)
Teachers	130	2.53	0.96	0.084				
Students	360	2.82	0.99	0.052	0.87	1.96	488	0.39

Calculated $p > 0.05$, t calculated < 1.96 at df 488

Details of the independent t-test statistics revealed that no significant difference exists between the perception of teachers and that of students on teachers based approaches for developing sustainable interest in the student preparing for agricultural career after

secondary school in Kaduna State. The reason is that the calculated p value of 0.39 is higher than the 0.05 alpha level of significance, while the calculated t value of 0.87 is less than the 1.96 t-critical at df 488. Hence the null hypothesis which state that there is no significant difference in the perception of teachers and students on teachers based approaches for developing sustained interest in the student preparing for agricultural career after secondary school in Kaduna state is hereby accepted.

Hypothesis Two: There is no significant difference between the perception teachers and that of students on interventions that develop sustained interest in the students preparing for agricultural career after secondary school in Kaduna state.

Independent t-test statistics used to test null hypothesis two is presented in Table 4.7

Table 4.7: t -Test analysis on difference of teachers and Students perceptions of interventions that develop sustained interest in the students preparing for agricultural careerafter secondary school in Kaduna State

Groups	N	Mean	Std Dev	Std. Error Mean	t-cal	t-value	Df	Sig. (2-tailed)
Teachers	130	2.94	1.101	0.097				
Students	360	2.63	0.982	0.052	0.625	1.96	488	0.532

Details of the independent t-sample statistics revealed that no significant differences exist in the perception of teachers and that of students on the null hypothesis that interventions develop sustained interest in the students preparing for agricultural career after secondary school in Kaduna State. This is because the calculated p value of 0.53 is higher than the 0.05 alpha level of significance, while the calculated t value of 0.63 is less than the 1.96 t-critical at df 488. Their calculated mean responses of 2.96 and 2.63 by teachers and students respondents respectively in this regard confirm this outcome. Hence the null hypothesis which stated that there is no significant difference between teachers and students perception

in the interventions that develop sustained interest in the students preparing for agricultural career after secondary school in Kaduna state, is hereby accepted.

Hypothesis Three: There is no significant difference between the perception of teachers and students on extracurricular approaches that develop sustained interest in the students preparing for agricultural career after secondary school in Kaduna State.

Independent t-test statistics on the perception of teachers and students on extra-curricular approaches that develop sustained interest in the students preparing for agricultural career after secondary school in Kaduna state is presented in Table 4.8.

Table 4.8: t-Test analysis on difference between the perception of teachers and students on extracurricular approaches that develop sustained interest in students preparing for agricultural careafter secondary school in Kaduna State

Groups	N	Mean	Std Dev	Std. Error Mean	t-cal	t-value	Df	Sig. (2-tailed)
Teachers	130	2.64	0.99	0.087				
Students	360	2.73	0.86	0.046	0.28	1.96	488	0.78

Calculated $p > 0.05$, t calculated < 1.96 at df 488

Details of the independent t-sample statistics revealed that there is no significant differences between the perception of teachers and students on extra-curricular approaches that develop sustained interest in the students preparing for agricultural career after secondary school in Kaduna State. This is because the calculated p value of 0.78 is higher than the 0.05 alpha level of significance, while the calculated t value of 0.28 is less than the 1.96 t-critical at 488 df. The calculated mean responses of 2.64 and 2.73 by teachers and students respondents also confirm this outcome, hence the null hypothesis which stated that there is no significant difference between teachers and students perception in the extra-curricular approaches that develop sustained interest in the students preparing for agricultural career after secondary school in Kaduna state, is hereby accepted.

Hypothesis Four: There is no significant difference in the perception of teachers and students on familial approaches that develop sustained interest in students preparing for agricultural career after secondary school in Kaduna State.

The test of null hypothesis four is presented in Table 4.9

Table 4.9: t-Test analysis on difference in the perception of teachers and students on familial approaches that develop sustained interest in students preparing for agricultural career after secondary school in Kaduna State

Groups	N	Mean	Std Dev	Std. Error Mean	t-cal	t-value	Df	Sig. (2-tailed)
Teachers	130	3.28	1.290	.114	2.15			
Students	360	2.87	0.94	0.050	1.96	488	.032	

Calculated $p < 0.05$, t calculated > 1.96 at df 488

Based on the calculated Independent t-test statistics, significant differences existed between teachers and students perceptions on familial approaches that develop sustained interest in students preparing for agricultural career after secondary school in Kaduna State. The calculated p value of 0.03 is lower than the 0.05 alpha level of significance, while the calculated t value of 2.15 is greater than the 1.96 t-critical at df 488. The calculated mean responses of 3.28 and 2.87 by teachers and students respondents respectively in this regard showed that the teachers have significantly higher mean perception than the students. Consequently, the null hypothesis which stated that there is no significant difference between teachers and students perception on the familial approaches that develop sustained interest in students preparing for agricultural career after secondary school in Kaduna state, is hereby rejected.

Hypothesis Five: There is no significant difference in the perception of teachers and students on government programs and projects that develop sustained interest in students preparing for agricultural career after secondary school in Kaduna State.

The t-test statistics used to determine the difference in the perception of teachers and Students on hypothesis five is presented in Table 4.10.

Table 4.10: t-Test analysis on difference between the perceptions of Teachers and Students on Government programs and after secondary school in Kaduna State projects that develop sustained interest in the students preparing for agricultural career.

Groups	N	Mean	Std Dev	Std. Error Mean	t-cal	t-value	Df	Sig. (2-tailed)
Teachers	130	3.32	1.49	0.13	1.38			
Students	360	3.20	.25	0.06	1.96	488	.168	

Calculated $p > 0.05$, t calculated < 1.96 at df 488

Results of the independent t-test statistics revealed that there was no significant differences between the perception of teachers and students on government programs and projects that develop sustainable interest in the students preparing for agricultural career after secondary school in Kaduna State. This is because the calculated p value of 0.168 is higher than the 0.05 alpha level of significance, while the calculated t value of 1.38 is less than the 1.96 t critical at df 488. The calculated mean responses of 3.32 and 3.20 by teachers and students' respondents respectively also confirm this outcome; hence the null hypothesis which stated that there is no significant difference between teachers and students perception in the government programmes and projects that develop sustained interest in the students preparing for agricultural career after secondary school in Kaduna State, is hereby accepted.

4.4 Summary of Major Findings

From the data analysis, the study revealed that:

1. The teacher-based approaches such as classroom instruction, the teachers zeal and competence, using of varieties of teaching methods like the project and field trip coupled

with counseling developed sustained interest in students to choose agricultural career after secondary school in Kaduna State.

2. Interventions and mentorship from role models, providing essential information on agricultural programmes, and collaboration between the school and other agencies developed sustained interest in students to choose agricultural career after secondary school in Kaduna State.
3. Extracurricular activities such as the young farmers club, and undertaking agricultural project in groups develops sustained interest in students to choose agricultural career after secondary school in Kaduna State
4. Family values regarding career prestige, the parents career preferences were significant issues in students choice of agricultural career after secondary school in Kaduna State
5. Government programs and policies such as prioritizing of agriculture, giving of incentives to students and consistencies of agricultural programmes develops sustained interest in students to choose agricultural career after secondary school in Kaduna State.

4.5 Discussion of Major Finding

The findings revealed that teachers must adopt varied teaching methods especially such that focuses on participatory approach to learning; of note is the field trip technique to commercial farms. This agrees with finding by Ochu&Ochu (2006) which stated that field trip is a very suitable instructional technique to be adopted in the teaching of agricultural science as it serves to motivate and change students orientation. Abolaji (1988) however noted that agricultural science curriculum in Nigeria is primarily concerned with academic preparation and ought not to be so that teaching should be directed at attaining food sufficiency.

The study identified the need to expose students to information and documentaries in agriculture. This corroborates earlier findings by Qusen, Olarinoye and Garba (2006) that increasing the use of information and communication technology has implication for job creation and global competitiveness. The need for partnership and collaboration with other stakeholders to develop sustainable interest in students was also identified which agrees with the opinion of Abdallah (2010) that food sufficiency and vision20: 2020 can only be attained through technology transfer and courses on economic and technical development

The study revealed the need for students to be exposed to extracurricular activities such as young farmers club in order to motivate the youths and prepare them for productive careers in agribusiness and commercial agriculture. According to MAFS (2014) Africa's Agricultural Education and training institutions will need to supply new skills to attract a new set of primary sector clients in the growing agribusiness markets. Dobbins (1999) agrees with this finding as he stated that meaningful agricultural education consist of three essential and interdependent components namely: class room and laboratory instruction, supervised agricultural experience and the future farmers of America. This however, is contrary to the view of Anderson and Kim (2009) who opined that high school students abhor post school programme as they view them as not relevant to their future career prospects.

The findings showed that rural development must be given adequate attention to reduce the persistent problem of youth migration and declining agricultural labour force to urban centers. This finding agrees with Ele (2006) that since it is the rural area whose population engages mainly in production activities like agriculture, farming and rearing of livestock and given their contribution to the national economy, enhancing the development of the sector for increased contribution to the national growth was only expedient.

The need to consolidate on gains of past government programs was also identified. This is consistent with Iwuchukwu and Igbokwe (2012) who agreed that successive changes in agricultural programs vary only in nomenclature and organizational network but all emphasizes same objectives such as provision of food security, exportation of excesses to other countries, provision of rural dwellers with extension services, agricultural support and rural development. Lindley, Crowther and Doron (1999) however identified low level of fund allocation to agricultural Education as a major constraint in African countries.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter contains the summary, conclusion and recommendations for the study.

5.1 Summary

The main objective of the study was to ascertain the approaches for developing sustained interest in students preparing for agricultural career after secondary school in Kaduna State. The study had five specific objectives among which were to; find the teacher based approaches, the interventions as well as family approaches that develop sustained interest in students to choose agriculture as a career after secondary school in Kaduna State. Five research questions and five null hypotheses were formulated for the study.

Review of related literature was carried out and the theoretical framework was based on Donald Super's career development theory which emphasized that individuals are driven by personal abilities and opportunities to which they are exposed. The study adopted the survey research design and population for the study was 6,011 comprising of 204 teachers of agricultural science and 5,807 students offering agricultural science at the senior secondary school level. A sample size of 493 was drawn using the stratified proportional random sampling technique. A structured questionnaire was used for data collection.

In answering research questions, mean and standard deviation were used. A mean of 2.50 and above was considered as agreed while a mean below 2.5 was considered as disagreed. Hypotheses were tested using the t-Test statistic for independent sample and decision was made at 0.05 level of significance.

In answering research questions, all the suggested approaches outlined to ascertain if they develop sustainable interest in students leading to their choice, of agricultural career after

secondary school were accepted. Among the null hypotheses, null hypotheses 1,2,3 and 5 were accepted, while null hypothesis 4 was rejected. The study identified the need among other things, that students interest in agriculture can be sustained through field trips to demonstration farms, exposure of the students to information in agriculture, interaction with role models, the need to curb rural urban migration of youths through developing the rural area and giving of incentives to encourage the youths to take up agricultural career.

5.2 Conclusion

Agricultural career offers Kaduna State one of the largest opportunities for providing employment to the teeming youth population in the state. There are diversities of remunerative jobs available in the Agricultural sector. Ironically, youths in the state are poorly motivated and poorly prepared to pursue productive career and modernize the agricultural system.

Enhancing the youths to develop sustainable interest in agriculture is therefore a prerequisite to rapid agricultural development. Realizing this depends on adopting the measures identified in this study such as: exposing students to field trip to get acquainted with commercial agricultural ventures, getting role models involved in mentoring students, establishing youth clubs that are agriculturally based such as the young farmers club in schools .The family should not hype up certain careers as being more prestigious than agriculture and the need for the government to consistently drive the agricultural sector by developing infrastructure in the rural area.

All these are considered imperative in overcoming the impediments and expected to lead to significant improvement in the involvement of youths in the agricultural sector.

5.3 Recommendations

Based on the findings of this study, the following recommendations were made.

1. Teachers of agricultural science, should make the subject attractive to the students using different methods of teaching especially those that enhance practical skill acquisitions like project method, field trip and making available relevant material such as documentaries, newsletters of agricultural institute and other literature on agriculture.
2. Secondary schools should always liaise with large scale farmers so that they can have opportunities to see how rewarding pursuing agricultural careers can be.
3. Schools should establish agricultural based youth clubs to expose the students principles and practices of agriculture.
4. Parents should be able to identify their children's interest in agriculture encourage them to take it up as a career.
5. Government should adopt measures to transform agriculture from purely subsistence to commercial farming thereby changing the image and perceptions agriculture portrayed as a low income high risk career,

5.4 Suggestions for Further Studies

The following are suggestions for further studies in the related field of study.

1. Factors affecting the choice of agriculture as a career among secondary school students in Kaduna state.
2. Challenges militating against the choice of agriculture as a career among youths.
A case study of students in secondary school in Kaduna State.

REFERENCES

- Abah, F. (2011) Youths keeping farming at arm's length. Retrieved February 20, 2011 from www.allafrica.com/stories/2011/01280486.html.
- Abakpa, B.O, Obinne, A.D.E, &Adegbe, B.T. (2006). Gender imbalance in the choice of careers: Implication for national growth and stability. In A.O. Ochu (ed.). Education for National Growth and Stability. Lagos: Nigeria Peacemakers Publications Limited.
- Abdallah, S. (2010), Nigeria to partner India in agriculture. Retrieved April 29 2010 from www.allafrica.com/stories/2010/04290894.html
- Abolaji , G (1998) Inservice needs and problems of agricultural science teachers in Kwara state, Nigeria. *Journal of American Association of Teacher Educators in Agriculture* 38(2), 43-49
- Adebo G.M & A.B Sekumade (2013) Determinants of career choice of agricultural profession among the students of the Faculty of Agricultural Sciences in Ekiti State University, Nigeria. *Journal of Agricultural Extension and Rural Development* 5(1 1), 249- 255
DOT: 10.5897/JAERD2013.0508
- Adole G.M. (2006). Educational and vocational development in Nigeria. In A.O. Ochu (ed). Education for National Growth and Stability. Lagos: Nigeria Peacemakers Publications Limited.
- Afolabi F.R. (2014). Empirical determination of tolerable sample size. Retrieved May 15 2015 from www.scripts.org/journal/Arn.
- Agbulu,O.N, Idu E.E,(2008) The impact of participatory and expository approaches on learning of agricultural science in senior secondary schools in Benue State. *Journal of Social Science* 16(3): 243 -249
- Amaele, S.I. and Amaele, P.E. (2005).Teacher education in contemporary society. Ogbomoso: Boom Link Media Prints
- Anderson, J.C. and Kim, I. (2009).Youth leadership development. Perceptions and preferences of urban students enrolled in a comprehensive agricultural programme. *Journal of Agricultural Education*, 50(1), 8-20.
- Anugwa P.O.1 (2006)Agricultural education and national development In A.O. Ochu (ed.). Education for National Growth and Stability. Lagos: Peacemakers Publications Limited.
- Arnold, S., Warner W.I. and Osborne, LW.(2006). Experiential learning in secondary agricultural education classroom. *Journal of Southern Agricultural Education Research* 56 (1).pp 47
- Ayatse, J.O. (2006). Keynote address presented at the proceedings of the 1st National Conference on Education for National Growth and Stability at the University of Agriculture, Makurdi.

- Ayatse, J.O. (2006). Keynote address presented at the proceedings of the 1St National Conference on Education for National Growth and Stability at the University of Agriculture, Makurdi.
- Ayers, N. (2010).Career planning for teenagers. Retrieved June 17 2011 from [www.suitel.com/content/career.planning for teenagers 234741 .html](http://www.suitel.com/content/career.planning%20for%20teenagers234741.html).
- Ayers, N. (2010).Career planning for teenagers.Retrieved June 17 2011 from [www.suitel.com/content/career.planning for teenagers 234741 .html](http://www.suitel.com/content/career.planning%20for%20teenagers234741.html).
- Babalola, I. (2007). Effectiveness of video as an instructional medium in teaching rural children agricultural and environmental sciences.IJEDICT 3(3).pp. 1 05-114.
- Babalola, I. (2007).Effectiveness of video as an instructional medium in teaching rural children agricultural and environmental sciences.IJEDICT .3(3).pp. 1 05-114.
- Bandura, A. (1986).Social foundations of thought and action; a social cognitive theory. Englewood Cliffs, NC :Prentice-Hall.
- Bandura, A. (1986).Social foundations of thought and action; a social cognitive theory. Englewood Cliffs,NC :Prentice-Hall.
- Bluestein D.L. (2004). The psychology of working.A new perspective for correct development. The Counselling Psychologist 25, 3 64-402.
- Bluestein D.L. (2004). The psychology of working.A new perspective for correct development. The Counselling Psychologist 25, 3 64-402
- Brown, W.B. and Steward, R. (1993).Agricultural institution in the middle school, Journal of Agricultural Education 32(2) 16-17.
- Brown, W.B. and Steward, R. (1993).Agricultural institution in the middle school, Journal of Agricultural Education 32(2) 16-17.
- Chen, A. (2001). A theoretical conceptualization for motivation research in physical education.An integrated perspective. Quest: 53, pp. 35-58.
- Chen, A. (2001). A theoretical conceptualization for motivation research in physical education.An integrated perspective. Quest: 53, pp. 35-58.
- Chen, A., Dan, P.W, and Pangarzi, R.P. (1999). What constitute situational interest? Validating a construct in physical education. Measurement in Physical Education and Exercise Science, 3(3), 157-180
- Chen, A., Darl, P.W, and Pangarzi, R.P. (1999). What constitute situational interest? Validating a construct in physical education. Measurement in Physical Education and Exercise Science, 3(3), 157-180.
- Clark, F. (1991).Breaking gender management monopolies. Journal of Management in Nigeria, Vol. 4.pp 53
- Clark, F. (1991).Breaking gender management monopolies. Journal of Management in Nigeria, Vol. 4.pp 53

- Coleman J.S. (1990). *Foundations of Social Theory*. Cambridge, MA: Belknap Press of Hawaii University Press.
- Coleman J.S. (1990). *Foundations of Social Theory*. Cambridge, MA: Belknap Press of Hawaii University Press.
- Del S. (2002) Reliability; Neragschool of education. University of Connecticut pp1 -10
- Del S. (2002) Reliability; Neragschool of education. University of Connecticut pp 1-10
- Dobbins, T.R (1999) Experiential components of agricultural teacher education. Unpublished doctoral dissertation, Virginia Tech, Blacksburg, VA: Virginia Polytechnic Institute and State University.
- Dobbins, T.R (1999) Experiential components of agricultural teacher education. Unpublished doctoral dissertation, Virginia Tech, Blacksburg,VA: Virginia Polytechnic Institute and State University.
- Egun, A.C. (2009). Focusing on agricultural education for better productivity in Nigeria in the 21st Century. *International Journal of Educational Science* 1(2) 87-90.
- Egun, A.C. (2009). Focusing on agricultural education for better productivity in Nigeria in the 21st Century. *International Journal of Educational Science* 1(2) 87-90.
- Elaigwu, O.P. (2006). The girl child and right to qualitative education in Nigeria. Implications for guidance in Eke E. and Olaleye, R.D. (eds.). *Politics in Nigerian Education*. Bauchi: Abdul Seodan Press.
- Elaigwu, O.P. (2006). The girl child and right to qualitative education in Nigeria. Implications for guidance in Eke E. and Olaleye, R.D. (eds.). *Politics in Nigerian Education*. Bauchi: Abdul Scodan Press.
- Ele ,C .(2006) *Evangelization through rural development* Nsukka; Great AP Publishers Ltd.
- Ele ,C .(2006) *Evangelization through rural development* Nsukka; Great AP Publishers Ltd.
- Englama, A. and Bamidele, A. (1997).In Adebo, O. (ed.) *Youth organisations in agriculture*. NO UN Educational Module. Lagos, Nigeria: NOUN Hq.
- Englama, A. and Bamidele, A. (1997).In Adebo, G. (ed.) *Youth organisations in agriculture*. NO UN Educational Module. Lagos, Nigeria: NOUN Hq.
- Fairburn N. (2003) *Career choice awareness biographies*.Curriculum Services Memo Canada.
- Fedale, S. (1987).Principles and practice of extension education. Electronic information technology for extension.Unpublished Manuscript. University of Idaho Agricultural Communication: ID Moscow.
- Ferry, N.M. (2006) Factors influencing career choice of adolescents and young adults in rural Pennsylvania. *Journal of Extension* 44(3) 1-6.
- Fizer, D. (2013) Factors affecting career choices of college students enrolled in agriculture.(Unpublished master's Thesis) University of Tennessee, Martin
- Frick, R.W. (1992). Interestingness. *British Journal of Psychology* (83) 113-128

- Gusen, J.N. ,Olarinoye, R.D and Garba, J. F. D (2008) Contribution of microcomputers to learning in Nigerian educational system. *The Jos Journal of Education*. Faculty of Education, University of Jos 6(1), 54-63
- Heit, E.L. and Cramer, S.H (1988) *Career guidance and counseling through the Life Span*. Boston: Scott, Foresman
- Hill, C. (1988). How to be responsive to stakeholders in curriculum Studies, *NASSP Bulletin*, 72, (1509), 8-13.
- Holland, J.I. (1997). *Making vocational choice: A theory of vocational personalities and work environment* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.
- Hughes, M. and Barrick, R.K. (1993).*Experiencing agriculture. A handbook on supervised agricultural experience*. Alexandria, VA: National Council for Agriculture Education.
- Idachaba F.(1991) *Policy options for African agriculture; The political economy of hunger, endemic hunger*. Oxford University Press
- Issa, A.D. &Nwalo K. J.N. (2007). *Factors affecting the career choice of undergraduates in Nigeria library and information science schools*, Unpublished Ph.D Thesis, Department of Library Archival and Information Studies, University of Ibadan: Ibadan, Nigeria.
- Iwuchukwu, J.C and Igbokwe F .M (2012) *Journal of Law, Policy and Globalization* ISSN 2224-3 2340 vol:5.
- Izard, C.E. (1977). *Human Emotions*, New York: Plenum Press.
- Kaiifmann, R.V. (n.d.). *New approaches for strengthening human and institutional capacity for improving rural livelihoods in Africa*.
- Lent, R.W., Brown, S .D., & Hackett, O. (1994). *Toward a unifying social cognitive theory of career and academic interest, choice, and performance*. *Journal of Vocational Behavior*, 45, 79-122.
- Lindley, W.I., Crowder, LV. and Doron, N. (1996).*Education in agriculture. Links with development in Africa*. Sustainable Development Department. Food and Agriculture of the United Nations (FAO).
- Mabie, R. and Baker, M. (1996).*A comparison of experimental instructional strategies upon the science process skills of urban elementary students*.*Journal of Agricultural Education* 37(2).
- Ministerial Council on Forestry, Fisheries and Aquaculture (2011).*100 agricultural careers*. Retrieved March 20th 2013 from www.mcffa.com 4/4/8/448m
- Modernizing African food systems (MAFS, June 2014) Consortium working paper NO. 7
- Moore G.E. (1988). *The forgotten leaders in agricultural education* in Stimson, R.W. (ed.). *The Journal of American Association of Teacher Education in Agriculture*, 29(3) 50-58

- National Association of Agricultural Educators (NAAE, 1998) Retrieved October 21st 2013 from [www.naae .au/national conference](http://www.naae.au/national-conference).
- National FFA Organization (2010).NFFA Contests Bulletin. Washington DC.
- National Policy on Education (2004) Federal Republic of Nigeria, Lagos: NERDC Press.
- Nwagwu N.A. (1976). UPE issues, prospects and problems. Benin-City: Ethiope Publishing Corporation.
- Ochu, A.O. and Ochu A.N.O. (2006). Mechanisms for accelerating youths vocational choice of agriculture and chemistry education profession in middle belt Nigeria in Ochu (ed.). Education for National Growth and Stability. Lagos: Peacemakers Publication Limited.
- Olaitan, S.O. (1989). Agricultural education in the tropics.Methodology for teaching agriculture. London, UK:. Macmillan Publishers Ltd.
- Olayiwola A.O (2010). Procedures in educational research: Nigeria: HANJAM Publications.
- Olujide, M.G. (2008). Attitudes of youths towards rural development projects in Lagos State: Nigeria Journal of Social Science 7(2) 163-167
- Omotayo, A.M. &Erinle, I.D. (2007). In Adebo (ed.). Youth Organisations in Agriculture, NOUN Educational Module.NOUN Headquarters, Lagos, Nigeria.
- Onuekwusi, G.C. &Effiong E.O. (2002). Youth empowerment in rural areas through participation in Rabbit Production: A Case of AkwaIbom State, Nigeria Journal of Rural Sociology 4(1) 9 5-47.
- Patton, C. & McMahan, J. (1999).Career development and systems theory; Connecting Theory and Practice. Rotterdam, Taipei: Sense Publishers
- Perna, L.W,andTitus,M (2005) The relationship between parental involvement as social capital and college enrollment: An examination of racial /cthnic group differences. Journal of Higher Education, 76, 485-518
- Perrit, D. and Morton, D. (1990). Pre-secondary agriculture: Preparing for the future. The Agricultural Education Magazine 62, (9).
- Reeve, J.M. (1989). The interest enjoyment distinction in Intrinsic motivation and emotion
- Ribichi, E.M. (1995). Providing meaningful field experiences; On the field experience creating successful programmes for new teachers. Thousand Oaks, CA: Corwin Press Inc.
- Ricketttes, I.C., and Rudds, R.D. 02002). A comprehensive leadership education model to training, teach and develop leadership in youth. Journal of Career and Technical Education 19(1), 7-17.
- Ryken, A.E. (2006). Going somewhere. How career technical education programme support and constraints urban youths career decision making. Career and Technical Education Research 31(1),49-71.

- Savickas , M. L (1997) The Spirit in counseling: Fostering self —completion through work. In D.P Bloch and L.J Richmond (Eds), connections between spirit and work in career development. *New Approaches and Practical Perspectives* (pp3-25)
- Savickas, M.C. and Spokane, A.R. (1999). *Vocational Interests. Meaning, Measurement and Counselling Use*. Ballo Alto, CA: Davies-Black Publishing/Consulting Psychologist Press Inc.
- Schmitt, M. and Kleine, H. (2010). The Influences of family and school relations on academic success. *Journal of Educational Research*. Online 2(1) 145-147.
- Secretary's Commission on Achieving Necessary Skills (SCANS) (1991). What work requires of schools; A SCAN Report for American 2000: Washington DC.
- Segal, N.L. (1999). Career of your dreams, career of your genes. *Psychology Today* (32) 54-56
- Shuttleworth, M. (2008). Survey, research design from experiment resources. Retrieved from <http://www.experiment.com/survey-research-design.html>. 24/05/2011
- Sofolahan, J.A.O. (1987). A place of vocational education in the national plan. A paper presented at home economics vocational workshop, Benin City.
- Sorrentino, O.A.V, and Bell P. E (1970). A comparison of attributed values with empirically determined values of secondary school science. *Science Education journal* 54(3),233-236
- Spiegel, M. (1992). Synthesizing evaluation perspectives, practices and evidences. A paper presented at the proceedings of the American Evaluation Association: 92 Extension evaluation Topical interest group, Seattle WA, 27-37.
- Stahl, M. and Hall, R. (2003). Is there a missing generation of scientists in Africa? Presentation at 2nd FARA Planning, 18-19 May (2003). Foundation/or Science (IFS) Stockholm, Sweden.
- Stevens, J (1986) *Applied multivariate statistics for the social sciences*: Hillsdale: NJ: Erlbaum
- Summonu, T (August 8,2009) Harambe holds 2' conference to encourage farming among youths. Retrieved from www.ladybrille.com. 9th July 2012
- Super D.E (1980) A lifespan, life-space approach to career development. *Journal of Vocational Behaviour* 16, No 3. (June, 1980): 282-298.
- Taylor, J. Harris M.B. and Taylor S. (2004). Parents have their say about their college age children's career decisions. Retrieved from www.jobweh.com. on 22/03/11.
- Torres ,R.M. Ulmer, J.D. ,and Aschenbrener, M (2008) Distribution of time usage among agricultural education teachers. A comparison of workloads. *Proceedings of the 2007 AAAE Research Conference*, (34)57 1 -584. Retrieved from <http://aaaeonline.org/all-conference> on 3/7/2014.
- Wikieducators.org /teaching. Approach accessed 22/8/2011
- Wikipedia (2011). Mentorship: The free encyclopedia. Retrieved from <http://en.wikipedia.org>.
- Wikipedia.org/wiki./mentorship 18th August 2014

- Woiman, B.B. (1973). Dictionary of behavioural science, New York, Van Nostrand Reinhold.
- Zilbert, E. and Leske, G. (1989). Agricultural education and experiential learning. *The Visitor*, 76(1)1-4.

APPENDIX B

QUESTIONNAIRE

APPROACHES TO DEVELOPING SUSTAINED INTEREST IN STUDENTS TO CHOOSE AGRICULTURAL CAREER AFTER SECONDARY SCHOOL IN KADUNA STATE

SECTION A:

Instruction: Please tick (✓) where appropriate

1. (a) Teacher [] (b) Student []

SECTION B

- Strongly Agreed - SA
Agreed - A
Disagreed - D
Strongly Disagree - SD

TEACHER – BASED APPROACHES FOR DEVELOPING SUSTAINED INTEREST IN THE STUDENT’S CHOICE OF AGRICULTURAL CAREER AFTER SECONDARY SCHOOL IN KADUNA STATE

S/No.	Statement	SA	A	DA	SD
1.	The classroom teacher through instruction in agriculture can motivate the student and arouse their interest.				
2.	The competence and zeal of the teacher is very important in imparting knowledge that would arouse the students interest in the topic being taught.				
3.	Using different teaching methods is crucial to Sustain students interest in a subject.				
4.	Field trip to places of interest like university farm Enhance practical knowledge of what has been learnt in theory creating lasting impression on students to the point of arousing their interest in Agriculture				
5.	Farm practical in the school farm does provide Interesting experience and has helped in clarifying Classroom instruction				

	better				
6.	It is important that Agricultural science teacher should as well be a career counselor to encourage student in Agricultural career through organizing career talk shop and use visual aids like video films of well established farms.				

SCHOOL INTERVENTIONS THAT DEVELOP SUSTAINABLE INTEREST IN THE STUDENTS CHOICE OF AGRICULTURAL CAREER AFTER SECONDARY SCHOOL IN KADUNA STATE

S/No.	Statement	SA	A	DA	SD
1.	Prominent individuals in agriculture or groups can act as mentors as they interact with the school to carry out awareness campaign and other agricultural projects.				
2.	Well documented information statistics regarding those who are succeeding in agricultural career is easily assessable to the students.				
3.	The immediate community where the school is located through community efforts have a part to play in contributing to the agricultural programme of the school.				
4.	There is need to expose the students to information about career in agriculture and its importance.				
5.	Collaboration between the school and other agencies involved in agricultural program will go a long way to arouse student interest in agriculture.				

EXTRAL CURRICULAR APPROACHES THAT DEVELOP SUSTAINABLE INTEREST OF STUDENTS TO CHOOSE AGRICULTURAL CAREER AFTER SECONDARY SCHOOL IN KADUNA STATE

S/No.	Statement	SA	A	DA	SD
1.	Prominent individuals in agriculture or groups can act as mentors as they interact with the school to carry out awareness campaign and other agricultural projects.				
2.	Well documented information statistics regarding those who are succeeding in agricultural career is easily assessable to the students.				
3.	The immediate community where the school is located through community efforts have a part to play in contributing to the agricultural programme of the school.				

4.	There is need to expose the students to information about career in agriculture and its importance.				
5.	Collaboration between the school and other agencies involved in agricultural program will go a long way to arouse student interest in agriculture.				

FAMILIAL APPROACHES THAT DEVELOP SUSTAINABLE INTEREST OF STUDENTS TO CHOOSE AGRICULTURAL CAREER AFTER SECONDARY SCHOOL IN KADUNA STATE

S/No.	Statement	SA	A	DA	SD
1.	Youth organizations in schools such as the Young farmers club can greatly influence perception of agriculture through undertaking of projects and team work.				
2.	Agricultural youth clubs provide the forum for evaluating youths perception of agricultural career and correcting any misgiving.				
3.	Agricultural youth clubs in secondary school can advance food production through keeping youths informed of agricultural production techniques.				
4.	Through extracurricular activities values and appreciation of the worth of agricultural career can easily be passed onto the youth				
5.	The opportunity youth leadership organization offer the students to direct their own programmes lead to exploring aspects agricultural programmes where their interest reposes.				

GOVERNMENT PROGRAMMES AND PROJECTS THAT DEVELOP SUSTAINABLE INTEREST OF STUDENTS TO CHOOSE AGRICULTURAL CAREER AFTER SECONDARY SCHOOL IN KADUNA STATE

S/No.	Statement	SA	A	DA	SD
1.	The state government is giving adequate priority to agriculture and encouraging youths into agriculture.				
2.	Through proper development of the rural area by providing modern infrastructure, migration of youths from farming to urban areas will be reduced				
3.	With the right incentive like scholarship the government can develop students interest in agricultural career				
4.	Agricultural career can be made attractive Through government bestowing national honours on successful individuals engaged in agricultural career				
5.	Consistency in the campaign on diversifying the economy through agricultural development will arouse interest of the students				

6.	Ensuring sufficient staff motivation through Welfare packages such as in service training and adequate remuneration would impact on the zeal of the teachers.				
7.	Government through collaboration with other countries can imbibe new ideas to get the youths into agriculture.				