**UNIVERSITY FOR DEVELOPMENT STUDIES**

**FACULTY OF EDUCATION**

# TOPIC: IMPROVING PUPILS ATTITUDE TOWARDS PRACTICAL AGRICULTURE LESSONS AMONG FORM TWO AGRICULTURE PUPILS OF TAMALE SENIOR HIGH SCHOOL

**BY**

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**A PROJECT WORK SUBMITTED TO THE FACULTY OF EDUCATION OF THE UNIVERSITY FOR DEVELOPMENT STUDIES TAMALE, IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF POST GRADUATE DIPLOMA IN EDUCATION**

**JUNE, 2017**

## DECLARATION

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

Student's name: Elvis Sabeng Amoateng Antwi

Signature:……..…..

Date:..….....

## SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this research work was supervised in accordance with the guidelines on supervision of research work laid down by the University for Development Studies, Tamale.

Supervisor's Name: Mrs. Issaka Cecilia Alimatu

Signature: .....

Date: .....……..

## DEDICATION

I dedicate this work to my wife and children



## ACKNOWEGDEMENT

I wish to express grateful thanks to the Almighty God for graciously giving me the health and protection to be able to accomplish this task.

I wish to thank my supervisor, Mrs. Issaka Cecilia Alimatu of the faculty of education, University of Development Studies, Tamale, who read through the work and made very useful suggestions and constructive criticism at every stage.

I also appreciate the efforts of my dear wife and the whole family for their support. To my senior pastor Rev. Edward Azekah I say thank you.

Many thanks goes to the respondents; Tamale Senior High School, parents and students who voluntary gave me the needed information

My thanks also go to my course mates, colleagues and others. It will be difficult to enumerate all your names but in diverse ways, you contributed to the shaping of this work.


## ABSTRACT

The study was on improving pupils attitude towards practical agriculture lessons among form two agriculture pupils of Tamale Senior High School. It sought to find out the attitude pupils have toward practical Agriculture, agriculture resources available for teaching agriculture science, the level of attention given to teaching and learning of practical agriculture and measures that can be put in place to help form two pupils of Tamale Senior High School to develop a positive attitude towards practical agriculture lessons. To achieve this convenience sampling technique was employed to draw a sample of 50 respondents for the study. The results indicated that pupils showed low interest in practical lessons. For example farm work and field trip were carried out once a year. Specimen and tools for work were also limited for each student to have an on hand experience. There were adequate human resource (professional staff) for teaching the subject, an agriculture laboratory and modernize agriculture tools for practical work. It came to light that the level of attention to given to teaching of practical lessons is low. Teachers cited the lack of support for practical as the major challenge. These factors culminate into students showing little interest in practical lesson. It also came to light that motivation for teachers and pupils, provision and adequate use of teaching learning resources for pupils will make them very interested Agricultural Science lessons, termly budget by school management and government support for the Agricultural could help teachers give more attention to practical lesson which will improve pupils interest in Agricultural Science. The study concluded that Agriculture science teachers and heads of schools should do well and find ways of encouraging pupils to have the interest in the subject. This can be done by Agriculture science teachers and heads of schools encouraging pupils to have good interest in the subject, through the formation of agricultural science clubs where pupils can discuss the relevance of practical agriculture lesson, scholarship packages should be awarded to best performing Agricultural Science students to serve as a motivation to students in practicing agriculture. Just as in vocational and technical courses, Agricultural subjects should have specific time period on the schools time table for practical work and Periodic in-service training for teachers teaching to help them upgrade their knowledge and skills in the teaching of practical agriculture.

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# CHAPTER ONE

# INTRODUCTION

## Background of the study

Education is a key to national development and this cannot be achieved without sustainable investment in human capital through teaching and learning. This is why education reforms in Ghana have been committed to making the issue of teacher and student quality and its development the cornerstone of the strategy to improve education quality and increase learning outcomes (Anamuah-Mensah, 2000).

The importance of agriculture in the national economy is well recognised in terms of food production, income generation and employment opportunities. However, the potential of agriculture in Ghana is marginally utilised. The policy of the government therefore is to modernise the agricultural sector and make it a catalyst for rural transformation making Ghana an agro-industrialised country in the process. The policy aims at improving the productivity of small-scale producers while actively promoting the emergence of medium and large-scale agricultural enterprises.

In line with government policy, the Ministry of Education recognizes the necessity for reviewing agricultural education to ensure the development of well-trained agricultural work-force including managers and specialists of various kinds. There is therefore the need for a broad-based training in agriculture to equip agricultural students with scientific, vocational and technological competencies to enable them fit into various sectors of agriculture. The agricultural training offered at the SHS level lays the foundation for further work in agriculture at the tertiary level.

The teaching and learning of an applied science like Agricultural consists of learning facts and figures, rules, laws formulae, problem solving, understanding of basic scientific principles of concepts and explanation of concepts and observed phenomena (Ampiah, 2002). It is therefore of utmost significance for the teacher to use the appropriate pedagogy to bring to good understanding and learning of a particular learning task. It is important that aspects of Agricultural like understanding of basic scientific concepts, problem solving based on observed phenomenon require a good understanding as well as explanatory and problem solving ability of the student concerned. Unfortunately, students tend to memorize concepts that require analytical thinking and basic knowledge in the concept concerned due to the subject been more theoretical than practical (Resmick, 2000).

According to Awuku et.al (1991), the performance of the students in agricultural science should match student's interest and practice of the subject. He further stated that lack of textbooks, poor management, poor funding etc as some of the many factors among others that influence the outcome of the teaching –learning process. It is therefore imperative for all stakeholders in the educational system to ensure that practical agriculture is encouraged in schools to help the nation achieve its goal in food security.

The study of agricultural science in the Senior High Schools is divided into General Agriculture, Crop Husbandry and Horticulture, Animal Husbandry, Fishery and Forestry. The content of the syllabus has been designed in such a way that it will offer knowledge and skills to students for whom Senior High School education is terminal. Knowledge and practices acquired in this subject will enable such students to work on

their own, or seek employment in agricultural establishments. It also provides adequate foundation knowledge and skills for students who will want to pursue further education and training in agriculture after SHS.

Agriculture, is allocated 7 periods of 40 minutes each, per week. Of the seven periods, three should be devoted to practical work and four to theory. The practical aspect of the subject is essential and teachers should give adequate attention to it. Schools offering Agriculture must keep a school farm. Where this is not possible, a well-planned garden with small plots should be maintained for regular observation by the students. At least one species of farm animals from each of the following three groups must be kept on a small-scale: Pigs and Poultry, Goats, Sheep and Cattle, Rabbits, Grasscutter, Guinea pigs and Fish.

It is also recommended that the study Agriculture at the Senior High Schools be supplemented with visits to well established government and private experimental and commercial farms, agricultural research institutes and other institutions related to agriculture. Teachers should also invite staff of MOFA and other related institutions to serve as resource persons where necessary. Practical work should involve laboratory experiments, farm work, observations carried out on the farm or garden, field trips, collection of specimens and recordkeeping. Each student must keep three practical notebooks for the following: Farm diary, Specimen album, Laboratory experiments and project reports.

In the light of this, many measures have been put in place by school management committees (SMC) and Parent Teacher Associations (P.T.As) to provide the necessary conditions to enhance the teaching and learning of practical subjects like agriculture.

Tools are provided for the teaching and learning of agricultural practical lessons. All these mechanisms are put in place so as to help pupils acquire the basic skills and knowledge in agriculture.

That notwithstanding, there are some schools in the country which do not take their practical Agriculture lessons seriously hence the increasing number of the youth who after completing school leave the rural areas for the urban areas in search of "Greener pastures" which do even exist. Students who also pursue the course divert in other fields which are not related to Agriculture. This trend is of worry and concern to the practitioner in the field of agriculture because the youth of today do not like practical work like agriculture.



**Problem statement**

Though Agricultural Education has been a priority of the government, the teaching and learning of Practical Agriculture at pre-tertiary levels leaves much to be desired. According to Baffour-Awuah (1987), Agriculture Education in Ghana at the pre-tertiary level is faced with much problems hindering achievement of its goals. There is low interest in both teachers and students (Akinmade, 2002). This low interest could be attributed to the usual approach to teaching this practical oriented subject which is no longer enticing enough to boost the required interest. The best way the youth in school can be taught agriculture is by "doing" (Awuku et al, 1991). However, when it comes to the "doing" aspects i.e. practical work which equips students with the right techniques and better understanding, students show little or no interest this was observed of Pupils of Tamale Senior High School in the Agric class hence the need to address this issue improving pupil's attitude.

**Objective of the Study**

The objective of the study is to assist Agriculture student of 2k and 2E improve on their attitudes of on practical lesson. Awuku et al, (1991), held the view that the best way the youth in school can be taught agriculture is by "doing".

**Research Questions**

The following questions will guide the research work

1. Which kind of attitude does students have toward practical Agriculture?
2. Which resources are available for teaching agriculture science?
3. What is the level of attention given to teaching and learning of practical agriculture
4. What measures can be put in place to help form two pupils of Tamale Senior High School to develop a positive attitude towards practical agriculture lessons?

**Significance of the Study**

This study will enable the pupils to develop a positive attitude towards practical agricultural lessons and acquire the basic skills to choose agriculture as a vocation in future.

It will also help teachers to find better methods of handling the subject in order to arouse and maintain the interest of students in agriculture.

The study will provide insight into the challenges, if any, of the teaching and learning of agricultural science in SHS level. The issue raise in the study and the suggestions

made would be beneficial in the modification of facilities and programmes to improve the existing situation in the school.

The findings of the study will be helpful to school administrators whose duty is to raise the standards of the subject in their schools.

It will also serve as reference material for future researchers who wish to carry out further research work on the subject matter.



**Delimitation**

The research was delimited to Tamale Senior High School in the Sagnarigu District. It covered only second year Agric Classes offering agriculture as an elective subject. It is also delimited to attitude of students towards practical agricultural science.

**Limitations**

The researcher in the course of conducting this research encountered certain challenges that in diverse ways retarded the smooth pace and early outcome of the main findings. First of all, getting respondents to interview on the topic under discussion. This happens because every minute in the school and on the school timetable is accounted for teacher who were supposed to be interviewed also are not all resident on campus. This caused a delay in administering the various instruments for the research. Another major problem will be to combine the work with practical teaching.

**Organization of the Study**

The project is made up of five chapters, chapter one presents introduction to the study, which includes the statement of the problem, purpose of the study, the research questions, significance of the study, delimitations and limitations of the study.

Chapter two of this project focuses on the review of related literature. This provides the works of learned authors in agriculture science, education, physical education and other practical based subjects related to the proposed area of study.

Chapter three presents the description of the methodology. This comprises the population under study, the sample, the sampling procedure, the instruments used for the research, pilot study, data collection procedure and methods of data analysis.

Chapter four also presents analysis and discusses results of the findings made from the research.

Chapter five, the last chapter deals with the major findings made from the research. It also provides suggestions and recommendations made by the researcher for future researchers.



# CHAPTER TWO

## Literature Review

In this chapter of the research work the researcher reviews the related literature for the research under the following headings:

- Meaning agriculture and practical agriculture
- Student's attitude towards the learning of practical agriculture.
- Influence of the society/parents on the attitude of their children towards the learning of agriculture.
- The attitude of educational authorities towards the development of agriculture.
- Teachers approach to the teaching of practical agriculture
- Resource available for teaching and learning of agriculture
- How to Motivate Students to Develop Positive Attitudes towards Agriculture
- Concept clarification



### Meaning Agriculture

According to Bareja (2014), agriculture may be defined as "the art and science of growing plants and other crops and the raising of animals for food, other human needs, or economic gain". The main importance of agriculture is food. Other purposes of agriculture include clothing, medicines, tools, aesthetic value or for profitable gains (Bareja, 2014). The continuous engagement in farming requires knowledge in the science of agriculture and is important for future production. This helps to make decisions as to what to produce and how to produce it (Barrick, 2012).

Towler M. J. and Kwarteng J. A. (1994) said, the term agriculture is derived from the Latin word "Agricultura" which means cultivation. Akinsani O. (1988) also said the term agriculture is derived from the Latin word; 'ager' meaning "field" and "culture" meaning 'cultivation'. Literally agriculture means field cultivation. Akinmade (2002, p.1) explains that agriculture is derived from the Latin words "Ager" meaning field and "cultural" meaning cultivation. He then defines agriculture as the production of plants and animals useful to man. According to him, agriculture covers not only the cultivation of the soil and the feeding and management of crops and livestock but also the preparation of plants and animal products for marketing.

In another view Akinmade (2002) defined agriculture as the cultivation of land to produce plants and animals of direct value to man. He added that agricultural science part concerns molecules and processes of cell organism while farming concerns production (crops, herds enterprise e.g. Milk production) of farms and agricultural economics concerning farming systems, marketing, national policies, worlds trade etc. Awuku et. al (1991) in Agriculture and Environmental Studies for Senior Secondary Schools define agriculture as the science and art (skills) and business of cultivating the soil, producing crops and raising farm animals. They explained that the science aspect of agriculture is made up of all the knowledge concerning agriculture production that enables us to understand and solve the problems in agriculture productions. The "art" side of agriculture is the "doing'' side which consists of the skills acquired and used by those engaged in some form of agricultural activities.

In a similar view as Awuku et al, (1991), Akinmade (2002), referred to agriculture as the cultivation of the soil, the production of crops and the raising of livestock, poultry

and fish useful to humans. It includes the relevant aspects of production, processing, marketing and other aspects of the modern business of agriculture. From the review above agriculture can be said as the husbandry of crops and animals for food, processing of the produce and marketing.

From the philosophical point of view, the teaching and learning of agricultural science as a subject is a kind of physical education. Physical education according to Nash (1999) is one phase of the total education process that is inherent in each individual to develop a personal originality, intellectually and emotionally. He continued to stress that these outcomes are realized whenever practical activities are conducted in classrooms during practical lessons and projects. From the above definition, it therefore means that agriculture is a subject which could best be taught and learnt more practically instead of solely being taught and learnt theoretically since neither crops nor animals can be reared or kept in books. Practical agriculture therefore involves actual involvement in farming activities while agricultural education is the acquisition of skills and knowledge in agricultural science with the view to imparting these knowledge and skills into prospective farmers for better productivity.



**Practical agriculture**

Practical agriculture involves actual involvement in farming activities while agricultural education is the acquisition of skills and knowledge in agricultural science with the view to imparting these knowledge and skills into prospective farmers for better productivity. According to Okorie, (2001), Practical agricultural education encompasses farming and agro-allied business organizations including others involved

services and sales in agriculture. This definition buttresses the meaning of practical agriculture which says that practical agriculture involves actual involvement in farming, while agricultural education is the acquisition of skills and knowledge and the dissemination of the skills/knowledge to the recipients.

It is not sufficient to make one sentence definition of agricultural education. The world book Encyclopedia defines agricultural education as instruction in agriculture useful to farmers, to those engaged in non-formal agricultural occupation and to all persons as part of the general education. It is the training of learners in the processes of agricultural productivity as well as in the techniques for the teaching of agriculture. "It is teacher preparation in agricultural production and in pedagogical skills in agricultural subject areas" (Olaitan, 1988). Agricultural education refers to the teaching of skills, values, attitudes, and related products. (Egbule, 2004). Therefore, agricultural education is the type of education that is employed in training learners in the improved agricultural production process as well as in the techniques for the teaching of agriculture. It therefore, takes place at two levels, namely formal level which would take place at primary, secondary to graduate study in the university; and at informal level which goes on outside the formal school system.

To Dupriez and De Learner (1985) Agriculture is a field of human activity in which men and women experiment, learn and cooperate in order to make nature serve its interest. Contributing to the above, Cheiku H. K. (2006) describes good agriculture as the spider's web whose main threats are woven into solid coherent network. He continued that no two spider webs are exactly the same but all are structured in the same way. That is to say that no aspect of agriculture is without practical.

According to Phipps and Clarke (1993), the purpose of practical education in agriculture is to educate present and prospective farmers for proficiency in farming. He opines that such education provides systematic instruction in agriculture of less than college grade in the public schools for those persons who have entered upon, or who are preparing to enter upon, the work of the farm or the farm home.

In view of this, Arnold P. J. (1968) defines physical education as that integral part of the educational process which enhances and harmonizes the physical, intellectual, social and emotional aspect of an individual's personality chiefly through direct physical activities. Kpeglo (2004) also goes on to explain the above benefits that physical activities and practical work help the individual to develop his abilities so that he can fit into the society. He explains that it contributes to the general development of the child. Such a child is mentally alert, socially sound, physically fit and emotionally wholesome. This means that any individual who cherishes and involves himself in physical activities and practical work will not only benefit from one developmental aspect but rather a general development of the individual. Nash (1999) pointed out that these outcomes are realized whenever practical activities are conducted in such places like classrooms, school gardens and during practical lessons and projects.



Youdeowei and Akinwumi (1986) in their book Introduction to Tropical Agriculture also added that in traditional small scale peasant agriculture, young people learn from the older farmers by accompanying them to the farm. They study the system by watching and participating in all the operations. In effect, they acquire the knowledge by doing which is a practical way of learning

**Practical skills among students**

According to Famiwole, (2013), the West Africa Examination Council and other examination bodies fail to assess competencies or skills that are gained through school farms which are laboratories for practice. This has led to a decrease in the use of school farm for developing a skill. Lack of clubs and organizations in schools have also led to decline in skills development. In recent times many students pass external examinations in agricultural science without farm practice to boost their technical knowledge and practical orientation but learning through theory (Olaitan and Mama, 2001).

Students, who went through the Farm Practical Year programme during their university programme in Nigeria, had practical gains of the theory learnt in the classroom to real life situation on the field (Oloruntoba, 2008). The students also had the opportunity to combine both theoretical classroom instructions and technical instruction on the field. The programme therefore provided agricultural students with practical skills which are supported by theoretical knowledge in agriculture (Oloruntoba, 2008). In recent times, a lot has been said about the importance and purpose of practical work in science schools. Most of the statement have been that, practical work encourages accurate observation and description, present phenomena in a more real state, arouse and maintain interest, promote a logical and reasoning method of thought (Dillon, 2008).

**Importance of agriculture**

Touching on the numerous importance of agriculture in general, Bafour (1981) said that the existence of man from the pre-historic era up to the era of ancient civilization depends on the ability of the individual to hunt and gather food for consumption. Food is therefore important in the life of an individual which provides energy for man's survival. Okronnipa (1998) in his Okro series, Comprehensive notes on Agricultural Economics and Farm Management identified about ten major roles agriculture plays in the development of Ghana and many West African countries. Agriculture

- provides food for the people,
- raw materials for industries,
- foreign exchange for the country,
- provides employment opportunities,
- provides income,
- provides marketing avenues,
- provides shelter,
- agriculture sets up international trade
- agriculture is a source of fuel.

These importance go a long way to improve upon the general background of the individual and the socio-economic background of the whole country.

**Benefits of Agricultural Science to schools**

Teachers believed that integrating agriculture into their classrooms has great benefits for their students, because, in a way it provides connection and authenticity in the

teaching content to their students. The implication of this is that, there is an interrelationship between nature and human needs and agriculture provides a basis for discussion (Knochbolk et al., 2007).

Foeken et al., (2010) stated that, the relatively high cost of acquiring ingredients from the market in the school feeding programme in Nakuru is been supplemented through school farming activities. Providing school children with lunch has been one of the biggest developmental goals in Nakuru town and schools that engage in farming activities in the town are having positive experiences in the provision of lunch to their school children (Foeken et al., 2010).

University of Minnesota Extension Department (2016) stated the under listed as benefits of farms to schools

- Promoting healthy eating habits and reduces risk of obesity and other health related disorders in children.
- Providing children access to local, healthy and nourishing foods.
- Facilitating education about nutrition, food, and agriculture in and out of the classroom.
- Increasing school meal participation rates.
- Opening up new markets and increase revenues and customer base for farmers.
- Developing community support and awareness about local food systems.

School farms are of great importance to students, parents and the community as a whole. Among other benefits, it has been found out that the underlisted are benefits



that can be gotten from keeping a school farm despite the fact that most of the schools under the study were having farms. The benefits include;

- the school farm offers farming experience to pupils especially those without agricultural background
- it helps to develop students' interest and love for agriculture
- it enhances better understanding and retention of facts (Ogbuehi and Chukwudum, 2013).

**Students' Attitude towards the Learning of Agriculture**

Attitudes are seen as cognitive and affective orientations or dispositions towards an object, idea, person and situation, among others (Fiske & Taylor, 2008). Attitudes can also be defined as "a disposition to respond favourable or unfavourable to an object, person, institution or event" (Ajzen, 2005: 3). Myers (1996: 124) defines attitude as "beliefs and feelings related to a person or event and their resulting behaviour." Zimbardo (1999) also defines attitude as positive or negative evaluation of people, objects, events, activities, ideas or just about anything in our environment. Attitudes start developing from childhood and are influenced by many factors including; parents, peers, and interactions with people who have religious, social, political and cultural differences (Brown, 2000). Therefore, "attitudes forms a part of one's perception of self, of others, and of the culture in which one is living" (Brown, 2000: 180).

Attitudes towards leaning are believed to influence behaviours and if students have positive attitude towards any subject, they can achieve many things in that specific area (Gajalakshmi, 2013). Attitudes can be useful prediction tools and instructors can predict the behaviour of their students by knowing whether students have positive or negative attitudes towards the subject in question(Shenaifi, 2013). According to Ajzen (2005) students attitudes towards a subject are the most important determinants of their professional behaviour. This implies that if students have a negative attitude towards Agricultural science, then they are most likely not to engage in careers related to Agriculture.

According to Myers (1996: 126) “attitudes determines virtually nothing. What people say often differs from what they do.” However, there are conditions under which attitude will predict behaviour and these include: when we minimise other influences upon our attitude statements and our behaviours, when attitude is specifically relevant to the observed behaviour and when it is potent (Myers, 1996).

Greenwald (1989) also reported that individuals with positive attitudes toward a subject or situation tend to evaluate it positively. Forming positive attitudes towards agricultural science increases the desire of the student in learning the subject and improves their ability to apply what they learn. Student’s attitude shows their ability and willingness to learn (Workman, 2014). Morrison (1989) and Kim and Hunter (1993) in further studies confirmed that specific relevant attitudes do predict behaviour. Sandoval and Harven (2011) confirms that student’s motivation to learn science is directly related to their attitude towards science Studies show that many people do not hold positive attitudes toward Agricultural science (Kwakye, 2016;

Baffour-Awuah, 1996; Pinda, 2010; MOFA, 2011; Rogers & Ford, 1997; George, 2000; Baliyan & Nenty, 2015).

Some students have negative attitude towards Agricultural Science and scientists because they see science as a subject for mad people. Others describe scientists as "hard," "old," "frightening," and "colorless" (Rogers & Ford 1997). However, some researchers have also observed some positive attitudes among students towards agriculture. Examples include the works of Darko et. al. (2016); Thoron and Burleson (2014); Onuekwusi and Okorie (2008) and Joshua, Pur and Gwary (2008) showed that students had positive attitudes towards agricultural science. Shenaifi (2013) also noted that students who were studying agriculture programs possessed attitudes, which were supportive of agriculture as a career field. He observed that the students of non-agriculture program agreed with the statements that agricultural program courses were better suited for male students, and those students pursuing careers in agriculture should enrol in agriculture, more than did students of agriculture programmes. Due to the great influence of attitude on learning, it is important to identify the determinants of attitude towards the study of Agricultural science (Oluwatelure & Oloruntegbe, 2010).

The falling standard of education and poor academic performance of students is attributed to the way students perceive themselves. Contributing to this, Jones and Charlton (1992) are of the view that pupils' expectations for success or failure are affected by a range of factors. Again in the article published in the Ghanaian weekly spectator (April 3, 1995 p 2), the writer, Paul Agyei blamed the falling standard in education partly on students. According to him, it has become fashionable these days

for students to copy blindly, foreign cultures without considering the side effects. As a result of this, students have developed bad attitude towards practical work. They leave the rural areas for the urban areas in search of white collar jobs. Lockheed and Vespour (1991) also share similar views that interviews and observations revealed this bad attitude of students towards learning. Contributing to teachers' attitude towards the learning of practical agriculture, Akinsanni (1998) put it that the trend for young people nowadays to become self-employed accounts for the popularity of agricultural science as a vocational subject in schools.

Guidance and counselling of students by teachers in choosing subjects in the secondary school has great influence in the selection of agricultural subjects. In schools where external personnel in agriculture and Agricultural Science teachers give guidance and counselling, students tend to have likeness of agricultural subjects (Kirimi, 2015). Curbelo (2006) stated that, students demonstrated positive attitudes towards the experiential components in Iowa states. Many students indicated that they would recommend supervised agricultural experiences programme to their friends as the programme gives hands-on experiences (Curbelo, 2006).

To crown it all, it is seen from the above comments that success in the educational reforms and for that matter in the field of agriculture in Ghana, greatly depends on the attitude of students towards the learning of the subject.



**Factors that Influence pupil's Learning**

Pupils learn effectively when they feel confident, assured about the materials they are using and comfortable with the people they are learning with and by whom they are

being taught. Pupils have very clear views about what can help them to learn. Barrick and Doerfert (1989) sought the opinions of pupils about the kind of school which they would like. In the section of their book which deals with learning, pupils articulate their understanding of the constraints under which teachers often have to work and express their views about what encourages them to work well. They are clearly concerned that they should be challenged and respected as learners that they respond to teachers and other adults who are interested in them and engage them in a positive manner. All learners need to be motivated and this begins with establishing a relationship between teacher and learner which is based upon mutual trust, interest and respect. Pupils do not come to lessons as empty vessels to be filled with knowledge; they bring with them their own interests and experiences which make effective starting points for learning. A pupil who is having difficulties with the contents of a lesson is likely to 'switch off' unless they can see that it has direct relevance to them. Agriculture as a practical subject requires facilities like land, equipment and a laboratory. These demand a lot of funds which may be difficult for many schools to secure in order to facilitate the practical teaching of the subject. In relation to this Lauglo and Norman (1987), while carrying out a study on diversified secondary education in Kenya, questioned the economics of offering pre-vocational subjects at secondary school which are more expensive, and which may not be fully facilitated in terms of equipment and managerial expertise. This had led to inadequate and theoretical instruction in many schools. Similarly Ssekamwa (1997) observed that, the high running costs of practical education reduce effectiveness of conducting practical education in subjects like agriculture.

**The Home/Parents Influence on the Child's Attitude towards the Learning of Agriculture.**

Parents contribute immensely to the education of their children. The school creates an enabling environment for the child to exercise his potentials Farrant (1982).

Waldo M. (1989) supports the view above when he asserted that the child should psychologically be prepared at home before he gets to school. The home plays a very crucial role in the life of the child and so whatever happens in the home has an impact on him. Supporting the above point, Herritherigton and Park (1986) in their studies were of the view that children of broken homes show deficits in cognitive performance as accessed by standardized, achievement and intelligence test. In the same way, children of illiterate parents, and also children from societies which are ignorant at particular fields of study tend to behave likewise, through the negative influence of those societies. The issue of parents and the society's influence and negative perception on agriculture resulting to their children's dislike for practical agriculture lessons becomes clearer when Upton and Anthonio (1965) attested that many people consider farming as a slow occupation. Most farmers hope their sons will not be farmers but will get work in towns and cities. He concluded that everybody from the Prime Minister down to the beggar on the streets depends on the farmer for his food. Contributing to the influence that the home has on the educational development of the child, Harvighust and Negaton (1967) stated that the family relationships are of primary importance in the psychological development of an individual in the formation of his personality not only as a child but also of the adolescent and the adult

that the child will become. That is to say, the personality background of the child depends on his home background. The way the child is brought up and the education and influence he receives from the initial stages of his development, the type of society from which the child comes and the types of conversations that parents have in the house also have influences on the child's education. From all the above information, it means that for a child to gain interest in a particular field of study, it partly depends on the influence of parents and the home background of the child.



**The Attitude of Educational Authorities towards the Development of Agriculture**

The importance of agriculture in the national economy is well recognised in terms of food production, income generation and employment opportunities. However, the potential of agriculture in Ghana is marginally utilised. The policy of the government therefore is to modernise the agricultural sector and make it a catalyst for rural transformation making Ghana an agro-industrialised country in the process. The policy aims at improving the productivity of small-scale producers while actively promoting the emergence of medium and large-scale agricultural enterprises.

In line with government policy, the Ministry of Education, Science and Sports recognizes the necessity for reviewing agricultural education to ensure the development of well-trained agricultural work-force including managers and specialists of various kinds. There is the need for a broad-based training in agriculture to equip agricultural students with scientific, vocational and technological competencies to enable them fit into various sectors of agriculture. The agricultural training offered at the SHS level, and also in the training of General Agriculture, lays

the foundation for further work in agriculture at the tertiary level. The General Agriculture syllabus is designed to help students to:

1. appreciate the importance of agriculture in the socio-economic development of Ghana,
2. acquire decision-making skills through the scientific principles of observation, data collection, analysis and interpretation,
3. develop skills and attitudes required for productive and profitable agriculture through practice and experiential learning,
4. recognise agriculture as a business and a viable livelihood option,
5. develop positive attitudes, interests, habits and good practices in agriculture
6. be aware of the roles of extension service in the agricultural value chain,
7. recognise job opportunities in agriculture,
8. acquire techniques for efficient management of agribusinesses,
9. acquire requisite knowledge and skills needed for further training in agriculture.

Despite periodic efforts of introduce agriculture and vocational subjects into the schools, penal and community demand for academic education leading to high status and pay of the modern sector has kept most schools within an academic as a means of escape from agriculture and manual labour, schools remain oriented for the fortunate minority who gain access to the modern rather than to the vast majority who remain in traditional agriculture according to Morris (1976).

After the achievement of independence in the 1960s, most African countries concentrated on rapid expansion of their educational systems. This expansion aimed at attaining self-sufficiency in high level manpower to Africanize the public service and

later the private sector, as well as to respond to the overwhelming popular demand for more education. The pressures of quantitative expansion precluded major qualitative or structural reforms for most countries, but by the mid-1960s educators had again turned their attention to the problem of relating school systems to the needs of predominantly rural societies. Morris states that the Kericho Conference on Education, Employment and Rural Development linked the growing concern over unemployed school leavers, to rural development needs.

Primary education together with other enabling factors contributes significantly to increasing the productivity of agriculture (Lockheed et al. 1980; Cabraal et al. 2005). A successful completion of high school education is the basis for students' future achievements in education, their careers and in life (Lashgarara 2011). This will be accomplished if the system assesses the implementation process, the attitude of the participants on delivery and curriculum at secondary schools and up to tertiary levels of education in the context of local and current global development in agricultural sciences (Kidane and Worth 2012). Also, teaching and learning are dynamic processes, which regularly need adjusting to meet the rapidly changing needs and opportunities in a given area (Creemers and Kyriakides 2009; McGrath2012).

In a forum organized to address the challenges facing the agricultural sector, the Volta Regional Director of Education Madam Olivia Sosu in May, 22 2007in addressing all District Directors, Managers of Educational Units and heads of institutions to budget for staff training program annually said the lack of in-service training in the past as a result of financial constraints had led to many errors in the job delivery. This therefore means when in-service training sessions are organized regularly for the newly

employed staff, teachers who do not know much about certain subjects which they might be forced to teach due to the lack of specialized teachers can acquire the necessary knowledge and skills for teaching. Contributing to this, Esuman (Mirror Saturday 19th May 2007 p.11) who was the guest speaker on a three day meeting to review education delivery, noted that administrators in the GES often base promotion on certificates and degrees, which has little to do with quality of instruction in the classroom. The chief Director stated that the government, parents and guardians have entrusted into the hands of teachers the total harvesting and development of the human capital of the country and they cannot afford to fail them. The council of state member therefore charged District Directors of Education not only to take responsibility but personally be responsible for the improvement of education delivery as long as they remain at post. Eshum (1997) commented on the same issue that in order to get good teachers, the right type of people should be recruited to train such teachers. The regular retraining of teachers who are already on the job should also be given the desired attention. Regular supervision of teachers by competent officers at the district and the school levels are also recommended. This will help check both theoretical and practical work of teachers.



**Teachers Approach /Attitude towards the Teaching of Practical Agriculture**

The teacher's influence on the child is very important because he is a role model to the child. To enable the child function effectively in the society, the teacher must play three important roles namely: a manager, a mediator and a facilitator. Worel and Stilwell (1981) stated that a good teacher in the classroom calls for a careful selection

of instructional strategies. A teacher has to adopt and create better learning conditions for students by organizing practical lessons, forming clubs such as agricultural science clubs, giving student's assignments and projects. In the field of teaching and learning, the teacher needs one thing which is managing. This involves skills in planning, organizing, coordinating and directing the learning environment. When the teacher lacks these, it affects the above learning process. What the child expects from a teacher is love, affection and security. Those children who lack these privileges at home however depend on the teacher for these (Acharibsarn, 2007).

Touching on poor teaching skills resulting from lack of experience on the part of teachers, Nyoagbe and Frederickson (1998) stated that a number of randomly visited classrooms gave the impression that the teaching skills in some cases seemed to be stereotyped and there was limited space for improvisation, imagination and the inability to use teaching and learning materials. Again, inexperience and absenteeism on the part of teachers have great effect on the interest and attitude of learners in some subjects like agriculture. In view of the above, professor Adurkwa (Daily Graphic Wednesday 16 May, 2007: p 11) the chancellor of the KNUST called on teachers to give up their best to make the education reform a success. He said teachers should see their profession as a sacrificial one since their contribution to the development of every nation could not be gratified let alone compensated.

As Ohene E (Mirror, Saturday, 18th Oct.2003 p.2) puts it, for education and for that matter the academic performance of students in Ghana to be successful, there is the need to strengthen and equip both the teaching and non-teaching staff to enable the institutions impart the requisite knowledge to the students. The following are but few

factors that affect the delivery of agriculture lessons. Lack of textbooks, lack of tools and equipment, poor teaching methods, excessive loss in instructional time, overloaded syllabi, inappropriate approaches to non-traditional subjects like agriculture, poor supervision and lack of motivation.

To educationist, the basic aim of all teachers is to facilitate individuals' growth and development and to prepare students to function effectively and independently within a rapidly changing world. Lockheed and Vespour (1991) stated that the number of hours for children to study a given subject in school is determined by those factors namely: the hours in the official school year, the proportion of these hours assigned to the subject, the amount of time lost because of school closing, teachers' absence, student's absence and miscellaneous interruptions.



**Teaching and learning of Agriculture**

Teaching of agricultural science at the secondary school requires a sound background in theory and practical aspects by the teachers of agriculture. The new 6-3-3- 4 system requires that agriculture be taught as pre-vocational subject at the primary and junior secondary schools and as a vocational subject in senior secondary school level (National Policy on Education, 2004).The relationship between teaching and learning is at the heart of the education process. Each teacher and pupil is an individual and as such will have their own ideas and preferences with regards to teaching approaches and how they like to learn. It should never be assumed that because you have clear intended outcomes for a session that you teach this will necessarily be what pupils will learn. Each of us responds differently to learning situations. Some, for example, will

enjoy learning in mathematics lessons and will respond to mathematical ideas with ease, while finding reading difficult; others will respond well in practical learning situations, while finding the accumulation of information from graphical representation difficult. Good teachers have recognised the challenges presented by these factors for a long time and have learned to plan their lessons in ways which address a range of preferred learning styles and which present opportunities for pupils to tackle learning in a variety of ways. Martin and Odubiya (1991) suggests that it is not always easy to define good teaching practice. Teachers may appear to be well organised and efficient but this in itself will not guarantee that pupils learn. Teaching and learning are complex processes that are subject to many social, cultural and economic influences. In order to succeed, effective teachers need to vary their teaching approaches, to be adaptable and to be vigilant in gauging how pupils respond to their teaching style, the resources they use and the environment in which they are working.

Learning takes place when children can do, understand or know something which previously they could not achieve or did not know. While much of what is learned in schools comes from the formal process of teaching, there is much which pupils learn that can be described as incidental or for which no direct planning takes place. In addition to learning about subjects or developing specific skills in school, pupils engage in learning as a social process through which they engage with others, learning how to play a role as a member of a team and collaborating in solving problems. This is an important part of learning and provides a foundation for pupils to become effective learners. Learning the skills of participation, co-operation and teamwork are critical elements in the classroom. Pupils who can work in social situations usually



prosper in school more than those who find it difficult to form relationships and collaborate with others. This is not to say that working independently is not important. Effective learners can adjust to a variety of teaching approaches and learning situations. In most classrooms pupils will encounter a wide variety of such situations and opportunities. These will typically include whole class teaching, small group work, paired work and even individual sessions working with an adult. Not all pupils will respond equally well to each of these situations and it is important that teachers are aware of how pupils respond in different circumstances. Pollard and Trigg (1997) have emphasised the importance of talking to pupils about how they prefer to learn and about their understanding of teacher expectations. Good teachers are able to identify those critical components of what is being taught which pupils must master in order to make progress. They are aware that pupils need to develop skills at one point in their learning which will ensure that they can make progress later on. Some pupils who have difficulties with learning will need longer than others to acquire these core skills and are likely to need additional support.

The delivery of practical agriculture at the senior secondary level should not be handled as a science per se but rather as a vocational subject for acquisition of practical agricultural skills for meaningful living (Obi, 2005).Olaitan (1988) maintained that the basic goal of our National Policy on Education is to make education both functional and utilitarian. Ikeoji (1999) reported that vocational education is borne out of the need for the system to make its products useful to them. The Federal Ministry of Education (as cited by Obi, 2005) stated that the objectives of agricultural education at the senior secondary should include;



1) to stimulate and sustain students interest in agriculture;
2) to enable students acquire useful knowledge and practical skills in agriculture;
3) to prepare students for further studies in agriculture; and
4) to prepare students for occupations in agriculture.

In addition to this Okorie (2001) outlined the aim of vocational education in Nigeria as:

1) to provide people who can apply scientific knowledge to the improvement and solution of environmental problems for use and convenience of humanity;
2) to provide the technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development; and
3) To provide young men and women with an intelligent understanding of the increasing complexity of technology.



**Teaching methods of Agriculture in Senior High School**

Teaching methods can best be defined as the types of principles and methods used for instruction. There are many types of teaching methods, depending on what information or skill the teacher is trying to convey. As in many other subject areas of teaching and learning, sharing knowledge with students in Agricultural Science topics may be done through several methods, singly or in combination. These would include; lectures, discussions, demonstrations and electronic methods such as videotaped instructions.

When a teacher is deciding on their method, they need to be flexible and willing to adjust their style according to their students. Student success in the classroom is largely based on effective teaching methods. For effective teaching to take place, a

good method must be adopted by a teacher. A teacher has many options when choosing a style by which to teach. The teacher may write lesson plans of their own, borrow plans from other teachers, or search online or within books for lesson plans. When deciding what teaching method to use, a teacher needs to consider students' background knowledge, environment, and learning goals. Teachers are aware that students learn in different ways, but almost all children will respond well to praise. Students have different ways of absorbing information and of demonstrating their knowledge. Teachers often use techniques which cater to multiple learning styles to help students retain information and strengthen understanding. A variety of strategies and methods are used to ensure that all students have equal opportunities to learn.

According to Farrant (1980), teaching is the process of facilitating learning. It involves the transfer of ideas, knowledge, skills, attitudes, beliefs and feelings to someone, with the aim of bringing about particular changes in a person. The teacher is the person who transfers such skills, ideas, attitudes and beliefs to the learner with the aim of the bringing about consistent change of behavior. In this regard the researcher appreciates Farrant’s observation that teaching and learning are opposite sides of the same coin, for a lesson is not taught until it has been learned. The teacher has to select an appropriate method that will assist him or her to achieve the instructional objectives. Thus Morse and Wingo (1969) have indicated that the teacher should not adopt any teaching strategies because it is convenient to him or her. The teacher must consider the entry behavior of students to know the difference in physical, emotional, moral and intellectual abilities that exist among the students. This will enable the teacher to select and present learning task in a way that meets the unique needs of all educands. In this

regard research findings from educational psychology can therefore be judiciously used by the teacher to know how to teach, when to teach and how much to teach their learners.

Kirimi (2015) asserted that, of the different methods of teaching, lectures and educational tours were the methods that influence the choice of agricultural subjects in the secondary schools. According to Auwal (2003), the demonstration method of teaching Agricultural science students leads to a better retention memory than the discussion method. Lui et al., (2015) observed that, a very low percentage of (5.6%) of students are taught by allowing students to have practical experiments but as high as 44.4% receive tuition mainly through the lecture method. It must be ensured that teachers know how to teach students to solve problems but not to simply memorize scientific facts. What sets Agriculture Science apart from other subjects is its inherent problem solving nature (Barrick, 2012).

One option of teaching method is videotaped instructions. Videotaped instruction is useful, interesting, and an effective way of acquiring skill in especially schools that do not have much space for practice (Ofoegbe, 2015). The ability to implant entrepreneurship habits in youth is through proper teaching of practical agricultural science in secondary schools. To teach practical agricultural science includes learners being shown actual experiences which are attained generally through the farm (Ofoegbe, 2015). In the absence of actual farm experiences, some skills can be obtained through the use of videotaped instruction for both male and female students, **(**Ofoegbe, 2015).

Learner centred method of teaching should be encouraged in the teaching of Agricultural Science in schools. Students studying Agricultural Science should be at the centre in the teaching and learning process. Therefore teachers should take measures to make students the centre of activities that are included in the teaching and learning process (Nwakpadolu and Modebelu, 2013). The learner centred method encourages active participation of students in the learning process, students can interact with the teacher with instructional Aids and the environment, promote the development of basic life skills in students and help students to utilize the learnt skills in solving their everyday problems using their own initiatives (Nwakpadolu and Modebelu,2013).

New learning paradigms, such as interactive learning, incorporation of information technology and participatory methodologies are reported to be successful in the implementation of various agricultural education and training projects. Distance and part-time learning are advantageous to keeping trainees in the work environment. Communication between agricultural teachers and extentionists can provide a base for exchange of ideas and this should be encouraged, as it serves as a link between rural schools and local communities (Nilsson and Wallace, 1997).

Blair et al (1975) have stressed in their book Educational Psychology that teaching methods must embody the techniques for managing the learning environment, so as to effectively handle obstructions, distractions and disruptions, which occur naturally in every learning environment. When the teacher effectively controls these occurrences an enabling learning environment for teaching and learning would be achieved. Farrant (1980) indicated that teachers with little skills tend to use authoritative and

inefficient methods that make pupils see school as a repressive place with little joy. Such methods hinder effective study of Government. The student should be guided by the teacher in discovering relevant information. Writing on the methods and techniques of teaching Nacino-Brown et. al, (1982) advocated for the inquiry method as against expository teaching.

Clarke identified the following benefits of the inquiry method as follows:

1. Students establish deep understanding and firm concepts.
2. It also helps students to clarify processes and relationships and to develop task, value and attitude.
3. Students develop their intellectual skills which include the ability to think rationally and critically.
4. Lastly it motivates students to learn since students remember better the things they find themselves.

When the government teacher implores the inquiry method of teaching students, it prepares them to be critical and objective thinkers not only in their subject but in other subjects. Questioning as a technique can be skillfully used by the teacher to determine the depth of understanding of students, though it is not an end in itself, but rather a means to an end. For this purpose there are four interrogatives to be used by the teacher which are: who, what, when and how. The teacher ought to apply the principles of questioning which include

i) Preparation of questions to suit the desired goal.

Questions should be asked in a civil and patient manner, it should be fairly distributed among students. When the Government teacher is guided by these principles during

the questioning of students, intimidation is less and students' interest and confidence is whipped up.

**Challenges in Practical Agriculture**

Observation has shown that as laudable as the objectives of agricultural education are, it may be impossible to achieve them due to poor delivery process of the programme and inappropriate method of evaluating the performance of students in practical agriculture at the senior high school (Ikeoji, 1997a, 1998).

Martin and Odubiya (1991) reported that the primary role of practical agriculture teachers has always been to help students to learn knowledge and skills in agriculture. Several researches have shown that many teachers of agriculture at the secondary school leave the profession early in their life (Myer, Dyer and Washburn, 2005; Heat-Camp and Camp, 1990,1994). Myer et al 2005; Camp, Broyles and Skelton, 2002; and Mundt and Connors, 1999, have conducted studies on the problems of beginning teachers of agriculture. These problems of beginning teachers include classroom management and student discipline, balancing work and personal life, managing stress, lack of preparation time at beginning of school year, time management, and motivating students. Others were dealing with individual differences, assessing students work, relationships with parents, organization of class work, inadequate teaching materials and supplies, and dealing with problems of individual students (Myer, et al 2005; Mundt and Connors, 1999; Nicholas and Mundt, 1996; Mundt, 1991; Heath-Camp and Camp, 1990; Barrick and Doerfert, 1989) Several lapses associated with the organisation of practical agriculture in secondary schools in

Nigeria have also been identified. The curriculum objectives have been found to be too broad; there is the inability of the policy to state general aim of vocational education (Olaitan, 1992; Egbule, 1998; Obi, 2005). Other lapses include inability to identify areas where practical skills are to be developed (Obi, 2005), unspecified evaluation system (Egbule, 1998, Ikeoji, 1998); cases of duplicated topics and poor programme delivery system (Egbule, 1998); lack of instructional aids and materials for practical agriculture delivery; lack of means and ability to provide recommended guest lecture visits and excursions (Obi, 2005, Olaitan, 1997). Egbule (1998) noted that the teaching and learning activities of practical agriculture at the secondary schools are grossly insufficient to elicit the desired level of initiative and creativity in students. It noted that the recommended instructional strategies is full of "showing", 'telling' and 'observing' with a few cases of 'doing' and 'practice' thus contradicting the recommended 'learning by doing' and 'guided discovery' instructional strategies (National Policy on Education, 2004). Cases exist of poor performance of candidates who enrolled in agricultural science examinations (Mamman, 2000).

**How to Motivate Students to Develop Positive Attitudes towards Agriculture**

Motivation is regarded "as a key component of a model of language learning" (Spolsky, 2000, p. 158). Yashima (2002) reported that motivated students have greater self confidence in their second language, resulting in a greater willingness to communicate. Not only is motivation important in language learning but all subject areas including agricultural science (Tatoo, 2007). He added that success in teaching

and learning has been determined largely by the ability to motivate both students and teachers along productive lines.

Saville-Troike (2006) also noted that individual motivation is a factor that is used to explain why some learners are more successful than others. The amount of effort that students show during the learning process depends on how motivated they are to learn. The more motivated students are, the more and easier they will learn ( Saville-Troike, 2006).

Saville-Troike (2006: 86) added that motivation is usually of two types. One of them is integrative motivation, which is based on learner interest, i.e. to what extent the learner is interested in the subject. The other motivation type is instrumental motivation, which is connected to the desire to learn the subject not only to increase occupational or business opportunities but also to get prestige or power. McClelland (1985) suggested two aspects of power; negative and positive. His power motive came from the theory that all human beings have a need for power, control and dominance. Individuals with higher power motive tended to relate more to successful interpersonal influence than others lower in power (McClelland, 1985). Students differ in their motivation towards learning and they show many different attitudes towards learning (Brown, 2000). Brown (2000) notes that students possess positive and negative attitudes in varying degrees and that negative attitudes could be changed by thoughtful instructional methods such as using materials and activities. Students' attitudes can also be changed by using better teaching methods, more motivated teachers or better course books (Georgiou, Stavrinides & Kalavana, 2007). Osguthorpe and Graham (2003) suggest the use of blended instruction. According to them, blended instruction



improves pedagogy, increases access to knowledge, increase the duration of teacher presence during lessons, and enhance ease of revision.

Attitudes are said to be developed from experience. Rani (2000) therefore suggests that student attitudes might be developed through suggesting projects which give students experience in problems that require the collection of evidence for forming conclusions. Projects can be suggested by the tutor or the student for the development of skills and attitudes rather than acquisition of knowledge. The organisation of project work helps to stimulate the initiative of students, arouse their interest, make them creative and help them express themselves. Projects also link Agriculture practiced at home and what is taught in school. For example, project work farms could serve as model farms for farmers in the community. Students can also produce farm products for sale in order to get income for future farming projects, pay their fees or meet other needs.

Student's attitudes can be formed from the attitude and experiences of others. Negative attitudes and experiences can be transferred from one student to the other. Therefore the situation of low student enrolment in science subjects may be reversed by changing the negative attitude of students towards science through persuasive messages (Piburn & Baker, 1993). This finding supports Crawley and Koballa (1994) who exposed grade 10 students to persuasive messages regarding enrolment in chemistry in Grade II. They also found that those exposed to the message enrolled more in the chemistry class than their counterparts in the control group. This finding provides support for using belief- based messages to promote enrolment in science. The Theory of persuasion and communication by Hovland, Janis and Kelley (1953), as applied to

science education by Shrigley (1978) in the Persuasive Communication Model (PCM) has shown that attitudes are changed when people are presented with related persuasive communication messages.

Strong, Silver and Perini (2001) recommends rigorous learning, where the curriculum is developed through complexity, provocativeness, and emotional involvement, rather than simplifying or "dumbing down" curriculum standards. Teachers are therefore encouraged to challenge students by using more student centred methods. Recent research indicates that students respond to the challenge of a rigorous curriculum, especially when it contains effective teaching techniques and a supportive classroom environment. Agricultural education can therefore be improved by revising the curriculum to include the application of concepts from physical and biological science (National Research Council, 1988)

Making the teaching and learning of agric topics more relevant to student's lives helps them see the value of the subject and in turn motivate them to develop a better attitude towards agricultural science (Leonard, 2010)

According to the theories of the constructivism, learning is an active and constructive process. Learners not only construct knowledge but the knowledge they already posses affect their ability to gain new knowledge. Thus the knowledge already acquired by the learner will affect how he/she interpret what a subsequent teacher is trying to teach (Etkina & Mestre, 2004). As indicated earlier, one of the reasons why students have negative attitude towards agricultural science is their previous experience. Therefore, teachers should probe the relevant previous knowledge that students have in order to

choose appropriate methods with respect to the content to be taught (Etkina & Mestre, 2004).

An equally important observation made by Seawell (1990) was that teaching and learning resources helped in effective teaching and learning and that without them, agricultural science lessons will become unexciting, unyielding, dull and impracticable. Nacino-Brown, Oke and Brown (1982) added that the mere use of TLMs does not guarantee effective teaching and communication. It is the careful selection and skilful handling by the teacher that renders them useful in facilitating the learning process. It is therefore necessary for teachers to have adequate knowledge to deliver their lessons well (Nacino-Brown, Oke & Brown, 1982).

**Conceptual Framework**

The theoretical basis for this study has its foundation in the works of Fishbein and Azen (1975). As adapted to this research work, their theory suggest that students and parents personal experiences, observations, knowledge and values about Agriculture, affect their attitudes about agriculture which in turn affect their beliefs, intentions and decisions to participate. Also, relevant to this study is the concept of self-efficacy.

According to Bandura (1994), in his Self-Efficacy Theory (SET), expectations such as motivation, performance and feelings of frustration associated with repeated failures determine effect and behavioural reactions. People's behaviour is strongly influenced by their confidence in their ability to perform that behaviour. This implies that, students may choose Agricultural science if they are convinced and confident in learning and passing the subject very well. Bandura added that, the Self Efficacy

theory plays an essential part of self system. A person's attitude, abilities and cognitive skills comprise the Self System and this system, plays a major role in how we perceive situations and how we behave in response to different situations. If students believe that it is easy for them to perform, then they are likely to learn the subject but if they perceive the subject to be difficult, they will not be motivated to choose the subject as an elective subject. The implication of this theory is that students' perceptions about their own abilities influence their attitude towards the subject.



# CHAPTER THREE

# METHODOLOGY

## Introduction

This chapter talks about the methodology which involves the research design and procedures employed in getting data from the target population. It also deals with the population and sample selection techniques, the research instrument and the interventions processes involved.



## Research Design

The research design was action research. Action research is an on the spot procedure designed to deal with concrete problems. The process is constantly monitored over varying periods of times and by variety of mechanisms (Observations, Interviews and Questionnaires) so that the ensuring feedback may be translated into modifications, adjustment and directional changed so as to bring lasting benefit to the ongoing process itself (Minion C., 1986). Action research helps make a social situation better, improves the condition upon which teachers and students work in schools. It also serve as in-service training thereby equipping teachers with skills and methods, sharpening their analytical powers, heightening their self-awareness and above all modifying their behavior. The rational for this design therefore is to equip pupils and more importantly teachers with the necessary practice to improve pupils attitude towards practical agricultural lessons in Tamale Senior High School.

## Population

The population for the study is form two agriculture pupils of Tamale Senior High School, staff teaching agriculture and parents. This is made up of fifty (50) students, four (4) agriculture science teachers and six (6) parents. Out the number twelve (12) were females and forty-two (42) were males.

**Sample and sampling technique**

The sample size for the study was sixty (60). Fifty (50) pupils, four (4) agriculture science teachers and six (6) parents. A sample refers to the elements selected with the intention of finding out something about the entire population from which it is taken (Polit & Hungler, 1997). However, Convenience sampling, as the name implies is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in study. Convenience sampling is used because of the availability and the quickness with which data can be gathered (Polit & Hungler, 1997).

**Research Instrument**

The researcher used the following research instruments for the work.

- Observation
- Interview
- Questionnaires

**Observation**

It is basically an opportunity for looking at or observing what is taking place or occurring in a real-life situation by classifying and recording pertinent happenings according to some planned schemes. The researcher critically observed the behaviors of both pupils and teacher while lessons were in progress in different occasions. He observed their behaviors towards the teaching and learning of the practical agricultural science. In order to obtain relevant and unique information, the researcher ensured that the target population was not aware that they were being observed.

**Interviews**

The researcher employed both direct and indirect approaches of the interviews. This enables the respondents to give reasons to some responses which were not clear enough to the researcher. To produce genuine and factual information, the researcher created harmonious relationship and good rapport so that respondents would feel at ease and seek clarification on issues that were not well understood.

**Questionnaire**

A questionnaire was designed for all respondents. The design was guided, to a large extent, by the material acquired from the literature review as well as the research questions. Items on the questionnaire were formulated using the research questions as a guide. The researcher used questionnaire to collect information from the agriculture

science teacher. They were open-ended and close-ended types of question. The researcher decided to use this instrument because it promotes confidentiality and also because of their heavy work schedules to enable them answer the questions at their own pace.

**Intervention process**

This aspect of the research diagnoses the problems as revealed by the research instrument. It also seeks to use a step by step procedure that is constantly monitored over varying periods of times and by a variety of mechanisms. The following are the intervention processes used in the research work.

**Pre-intervention**

The outcome of the use of the research instruments that is observations, interviews and questionnaires brought to the force the improving of pupils' attitude towards practical agricultural lessons. Through observations, the researcher discovered that pupils grudgingly participated in practical work, teaching and learning was always done mostly in the classroom. The subject teacher when questioned about this attitude toward practical agricultural lessons, presented the following factors; the overloaded nature of the syllabi, government's inability to provide funds, poor teaching methods, lack of human resource and home background of the pupil. The parents on their part when interviewed said there was no need advising their wards to take practical agricultural lessons seriously since they themselves did not benefit much from their farming.



**Intervention**

Due to the nature of the curriculum design in the school, the researcher used classes' sessions in educating pupils on the relevance of studying practical agriculture. Upon realizing the problem at hand, he invited a resource person on agriculture to help educate pupils on the need to take practical studies seriously.

A backyard garden was established as demonstration site where students took turns to carry out an activity in the farming process. Pupils willingly participated in all practical activities in the school. Teachers teaching the subject were reminded on of necessity of practical aspects and to handle the practical aspect of agriculture so as to improve the willingness of pupils to participate in practical lessons.

**Post intervention**

After the intervention had been put in place to remedy the attitude of pupils towards practical agriculture lessons, it was observed that pupils did not see work on the farm as time wasting but rather a place to acquire on hand knowledge. Pupils perception about not to offer agricultural science as a course in the tertiary and not going into farming changed and most of them were ready to study agriculture as a course in their lives and take to farming not wait to be employed. Teachers in the school also varied their methods of teaching by organizing practical lesson, field trips which made pupils learn new things about agriculture and this had greater impact on pupils' lives mainly

because they thought agriculture was only reserved for poor people. In all, the researcher discovered that there was much improvement on the attitude of pupils towards practical agricultural lessons and pupils were involved in all practical activities in the school all the time.

**Data analysis plan**

In order to present information collected from respondents after applying the various instruments mentioned earlier, the researcher decided to tabulate his findings to pictorially show clearly the responses and the issues discussed. The researcher therefore used simple statistical tables to illustrate his data that were gathered from pupils, parents and teachers. Details of the analysis are presented in chapter five.



# CHAPTER FOUR

# PRESENTATION AND DISCUSSION OF FINDINGS

## 4.0 Introduction

This section presents and discusses key findings from the empirical study on improving pupils the attitude of towards practical Agricultural lessons. The analysis is supported by secondary literature. The presentation and discussion centre on the personal characteristics of the respondents i.e. sex, attitudes towards practical agricultural, ways of improving student's interest in practical Agricultural Science, agriculture resources available in the school and the attention given to the teaching and learning of practical agriculture. It also presents tables used to analyze the data collected from, pupils subject teacher and parents of the school. The instruments used and the questions designed were all based on the research questions. The data gathered are analyzed and discussed

## Response from students

### Distribution of pupils' respondents by sex

The pupils were asked to indicate their sex. The response are presented in the table below.

Table 1: Sex of student respondents

| Sex | Frequency | Percentage |
|---|---|---|
| Male | 33 | 82 |
| Female | 7 | 18 |
| Total | 40 | 100.0 |

Source: February, 2017

From the table above thirty-three (33) representing eighty-two percent (82%) of the respondents were males and seven (7) representing eighteen percent (18%) were females.

**Research question 1: attitudes pupils show towards practical agriculture**

Research question 1 sought to find out pupils attitudes towards practical agriculture lessons whether pupils showed a good attitude and whether they wanted to offer agriculture as a profession. The responses of the respondents are presented in the table below.

| Items | Response | | | |
|---|---|---|---|---|
| | Yes | percentage | No | Percentage |
| Do pupils show good attitude during practical lessons | 13 | 32 | 27 | 68 |
| Would you like to take agriculture as a profession | 15 | 34 | 25 | 66 |

Source: February, 2017



The researcher interviewed pupils on whether they would like to offer agriculture as a profession, 25 representing (66%) of the pupils responded that they would not offer agriculture as a profession. when asked why; they said offering agriculture as a profession would mean that one wanted to become farmers. They were of the view that they rather have agriculture as a part time work instead of a profession since they can gainfully employed in other sectors still being in agriculture. Others also said offering

agriculture as a profession meant choosing to become a poor person in life. The 15 pupils representing (34%) said they would like to become, farm administrator / manager, agricultural extension officers so that they would be sitting in the office, driving or riding motor bikes and moving from one area to another, collecting food stuffs from farmers. Some also said they would like to become prominent people in their various families to take care of their parents.



**Research 2: Resources in the school**

Research question 2 sought to find pupils knowledge of any available resources in the school that enhanced the teaching and learning of practical agriculture. This is was necessary because the availability or the lack of the resources could affect pupils interest in the practical lesson. The responses from the respondents are presented below

| Items | Response |
|---|---|
| Four agriculture resource | Trained teacher<br>Agricultural laboratory<br>School farm<br>A well-resourced library |
| Four modern agriculture tools seed or used before | Knapsack sprayer<br>Tractor<br>Watering can<br>Combine harvester<br>Pruning saw<br>Budding knife<br>Hand towel<br>Sickle |

Source: February, 2017

In interviewing the pupils, they said that there were qualified agricultural science teachers in the school to teach the subject, an agricultural laboratory and school farm. The respondents for example said the agriculture laboratory is been underutilized and farming is seasonal. They also list some modern tool/equipment in the school and what they have seen before. They strongly made it clear that the tools are few which limits an on hand experience which affects their interest in the practical lesson.

**Research question 3: Level of attention given practical agriculture**

Research question 3 was to find out the level of attention/time given to the teaching of practical agriculture in the school. Responses of the interview are presented below.

| Item | Response | | | |
|---|---|---|---|---|
| | Yes | Percentage | No | Percentage |
| Do you normally go out for practical lessons | 23 | 57 | 17 | 43 |

| How often do you go out for practical lesson | Response | No of times | Percentage |
|---|---|---|---|
| | Never | 11 | 27 |
| | Once a year | 5 | 13 |
| | Once a term | 4 | 10 |
| | More than once a term | 20 | 50 |

Source: February, 2017

The above table combines two interview items for pupils. The researcher asked pupils whether they actually go out for practical agriculture lessons. They were also asked whether they go to the school farm to work. The responses of pupils shown on the table above indicates that majority of the pupils who are twenty three (23) in number representing fifty seven percent (57%) of the total number of pupils did go out for practical lessons which implies that majority of them were going to the school farm to work. The table also indicates that only 17% pupils representing forty three percent (43%) of the total number of pupils said they did not go for practical lessons. They said that they could remember that it was only on two occasions that they did practical work and even that those two days they were with non-agriculture students to work on the school farm. 20 pupils representing 50% also said they went for practical lessons once a term, whiles 11 representing 27% said never. 5 and 4 pupils representing 13% and 10% respectively said they went for practical lessons once a year and once a term.

**Research question 3: Measures to help improve pupils' attitude**

In relations to the above questions pupils were of the view that constant education and sensitizing on the importance practical agriculture will help improve their attitudes towards the practical lesson. Some also said the tools for practical's should be readily made available and enough for all pupils to have an on hand experience. Below are suggestion from pupils which can improve pupils attitude towards practical agriculture

- Practical work should be started on time and properly monitored to its conclusion

- Pupils should be made to understand that Agriculture is not only farming but entails a lot
- Pupils who actively participate practical lesson should be rewarded
- Pupils should be taken on field trips
- More time should be given to the practical lesson



**Response from the Subject Teacher**

**Sex of teacher**

Data on the sex of respondents was gathered by the researcher to find males and females who thought the Agricultural Science. The results are presented below.

**Table 2: Distribution of teachers (staff) by sex**

| **Sex** | **Number of respondent** | **Percentage** |
|---|---|---|
| Male | 3 | 75 |
| Female | 1 | 15 |
| **Total** | **4** | **100** |

Source: February, 2017

The table above shows that 3 teachers were male (75%) whiles one teacher was a female (15%)

**Distribution of teachers by qualification**

Data was collected on the qualification of teachers who taught Agriculture science. Since one's qualification and knowledge of the subject matter influenced the attitude to the subject matter. The results are presented below.

Table 3: Teacher qualification

| Qualification | Certificate type | Frequency | Percentage (%) |
|---|---|---|---|
| Academic Qualifications | Bachelors in Agric Technology | 3 | 75 |
| | Mphil Post harvest Technology | 1 | 15 |
| Professional Qualifications | Cert A | 2 | 50 |
| | Post Diploma in Education | 1 | 25 |
| | Non Professional | 1 | 25 |

Source: February, 2017

Table 2, shows that (75%) of teachers had Bachelor of Science degrees while (15%) have Mphil. On the other hand, two (2) teachers had Post-secondary certificates in education, one (1) had post Diploma in education and one (1) a non-professional teachers. The number of years that teachers taught was found out to be that, seventy five percent (75%) had taught for ten years and above, twenty five percent (25%) taught for between seven years.

The teacher's educational background revealed that they were technically qualified to teach the subject. In addition all four (4) teachers, representing (100%) also taught

integrated science as the second subject. This they agreed had no effect on the teaching of practical agriculture lesson.

**Research question 1: Attitudes of pupil towards practical agriculture lesson**

The researcher collected data from teachers to establish the extent to which students showed interest in the practical agriculture lessons. The results are presented below.

**Table 4: Attitude of pupils towards practical agriculture lesson**

| Attitude | **Response** | Percentage |
|---|---|---|
| Very Interested | **-** | - |
| Interested | **2** | 50 |
| No comment | **-** | - |
| Less interested | **1** | 25 |
| Not interested | **1** | 25 |

Source: February, 2017

From the table above fifty percent (50%) of the teachers agreed that pupils where interested in agriculture practical lessons. Twenty five percent (25%) respectively said less interested and not interested. All four teachers agreed that pupils were selective when it comes to practical Agric lessons. Student were very interested in off campus activities like field trips and identifying specimen on campus or outside campus but showed less interest in working on the school farm.

On the percentage of pupils who showed up practical lesson all four teachers agreed that seventy five percent (75%) of the student but added that this number included

non-agriculture pupils since farm work is done seasonally. They also agreed that it offered some of the Agric pupils the opportunity to stay away from the practical work on field.

**Research question 2: resources available for teaching agriculture**

**Agriculture resources in the school**

All four teachers agreed there was a school farm which served as demonstration and proceeds used in feeding pupils. The under listed are some of the agriculture resources in the school as identified by the teachers

- Qualified teaching and non-teaching staff (farm assistance) of Agric
- Agric science laboratory
- Crop farm (maize)
- Pig farm
- Cattle farm

Other agriculture equipment included

- A malfunction tractor
- Mowers
- Soil test kits
- wind vane
- rain gauge
- knapsack sprayers
- budding knives
- cutlass and hoes etc

**Research question 3: level of attention given to practical agriculture lesson**

Respondents were to state the number of times practical agriculture lesson were held on weekly, monthly, yearly. Since the frequency of having the lesson can affect people attitude towards the subject. The results are tabulated below.

**Table 5: Level of attention given to practical agriculture lesson**

| How often do you have practical lesson with your pupils | Response | No of times | Percentage |
|---|---|---|---|
| | Weekly | - | - |
| | Monthly | 1 | 25 |
| | Once a term | 3 | 75 |
| | Never | - | - |
| How often do you go on field trips with your pupils | Never | - | - |
| | Once a year | 4 | 100 |
| | Once a term | - | - |
| | More than once a term | - | - |

Source: February, 2017

From the table three (3) teachers agreed they had practical lessons once a term representing 75%, whiles one teacher said once a month. All respondents agreed that field trips were carried out once a year and that it basically involved final year pupils.

**Research question 4: Measure to improve pupils attitude towards practical agriculture lessons**

In relations to the above questions teachers were of the view that constant education and sensitizing on the importance practical agriculture will help improve their attitudes towards the practical lesson. Below are suggestion from teachers which can improve pupils attitude towards practical agriculture

- Agricultural lessons should be more practical i.e. class demonstration and field work: The respondents were of the view that Agricultural science requires practical demonstration. This therefore suggests that agricultural science lessons should be more practical than theoretical to motivate pupils. They added that Practical lessons could be organised outside the school to study real situations to deepen understanding of what is taught in class and to develop student's interest in Agricultural Science. This is consistent with Awuku, Baiden and Ofosu (1991) that the best way to teach agriculture is by' doing'.
- Adequate TLMs for practical lessons should be provided for all pupils to have an on hand experience: Another major concern shared by teachers was that lack of TLMs for teaching the subject has resulted in pupils dislike for the subject. But Nacino-Brown, Oke and Brown (1982) noted that the mere use of these Teaching Learning Materials does not guarantee effective teaching and communication. It is the careful selection and skillful handling by the teacher that renders them useful in facilitating learning.
- School authority should provide the need support for the teaching practical Agric lesson on monthly or termly basis instead of yearly support and

government support: Respondents were of the view that adequate support from school authority on monthly or termly could contributes to the interest of student. They therefore suggested that school authority should make budgets for monthly practical lessons. Government policy to levy agriculture pupils can help to raise the necessary funds for practical agriculture in school

- Pupils should constantly be reminded of the importance of practical agriculture lessons: respondents also suggested that pupils should be constantly educated and tutors motivated enough to develop favorable attitudes towards Agricultural science. Saville-Troike (2007) confirms that the amount of effort that pupils show during the learning process depends on how motivated they are to learn. The more motivated pupils are, the more and easier they will learn.



**Interview with parents**

Information gathered from parents through interview was discussed under the following headings

Table 6: Occupation / economic background of parents

| Occupation of parents | Number of responses | Percentages% |
|---|---|---|
| Farmers | 2 | 33 |
| Teachers | 1 | 17 |
| Traders | 3 | 50 |
| Total | 6 | 100 |

Source: February, 2017

From the table above, two parents representing thirty-three percent (33%) of the parents interviewed were farmers. One parent representing seventeen percent (17%) of them was a teacher and the remaining three representing fifty percent (29%) were traders. All the six parents said they had a backyard garden and that they worked with their children on the farm. However, they said that, on many occasions, the children gave excuses for not working on the farm or even dodged going to the farm. This invariable affected their attitude towards practical agriculture lessons.

On what can be done to improve this situation some of the parents suggested that the children should be educated on the importance of getting involved in farming, that pupils should be taking on trips to well established large scale farmers to see proper structures and system that makes farming enjoyable. Some also said in order to get their children to come along they give them the tools and inputs to take to the farm.



**Post Interventions Analysis**

**Attitudes pupils show towards practical agriculture**

| Items | Response | | | |
|---|---|---|---|---|
| | Yes | percentage | No | Percentage |
| Do pupils show good attitude during practical lessons | 42 | 84 | 8 | 16 |
| Would you like to take agriculture as a profession | 30 | 75 | 10 | 25 |

Source: February, 2017

The table above shows the number of respondents interviewed after the intervention processes. 42 of the respondents representing 84% attested that pupils' attitudes towards practical agriculture lessons and activities had improved. Pupils were seen actively participating in practical lessons with the necessary materials made available for them to use. Of the 40 pupils interviewed 30 representing 75% were convinced of taking agriculture as a profession in the future. The remaining 10 representing 25% said they would take other profession in the future and have agriculture a secondary work.



**A section of students involved in a practical activity on the farm**

# CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECOMMENDATION

## 5.0 Summary

The study was on improving pupil's attitudes towards practical agriculture lessons among form two agriculture pupils of Tamale Senior High School. Convenience sampling technique was employed to get a sample size of 50 respondents comprising of students, teachers and parents. Questionnaire was used to collect primary data on student's bio characteristics, attitude towards the teaching of practical, agriculture resources available in the school, the level of attention given to teaching and learning of practical Agricultural and measures that can be put in place to improve pupils attitude towards practical agriculture lessons.

The results indicated that pupils showed low interest in practical lessons. For example farm work and field trip were carried out once a year. Specimen and tools for work were also limited for each student to have an on hand experience.

There were adequate human resource (professional staff) for teaching the subject, an agriculture laboratory and modernize agriculture tools for practical work.

It came to light that the level of attention to given to teaching of practical lessons is low. Teachers cited the lack of support for practical as the major challenge. These factors culminate into students showing little interest in practical lesson.

It also came to light that motivation for teachers and pupils, provision and adequate use of teaching learning resources for pupils will make them very interested Agricultural Science lessons, termly budget by school management and government

support for the Agricultural could help teachers give more attention to practical lesson which will improve pupils interest in Agricultural Science.

**Conclusion**

Based on the findings of the study, it was disclosed that the form two (2) agriculture pupils in Tamale Senior High School showed low interest in practical agriculture lesson however, through a successful implementation of a constantly monitored step-by-step pragmatic measure adopted by the researcher, the problem of pupil's attitude towards the learning of practical agricultural science was successfully tackled.

**Recommendations**

The Senior High School programme has been carefully planned and organized so as to equip pupils with both practical and theoretical knowledge. The teaching and learning of practical agriculture is very important. This will help learners acquire the basic skills and methods in agricultural science to enable them earn a living in future. Based on the various information gathered from pupils, parents and teachers using the various data collection instruments, the researcher would like to make the following suggestions and recommendations to teachers, parents, educational authorities, school management committees (SMCs), Parents Teacher Associations (PTAs),

- Agriculture science teachers and heads of schools should do well and find ways of encouraging pupils to have the interest in the subject. This can be done through regular sensitization in the course of teaching and learning, formation of agricultural science clubs and making agricultural lessons more interesting.



- Scholarship packages should be awarded to best performing Agricultural Science students to serve as a motivation to students in practicing agriculture.
- Just as in vocational and technical courses, Agricultural subjects should have specific time period on the schools time table for practical work and students should be examined on the practical projects in the school or the school community instead of the classroom practical examination.
- Periodic in-service training for teachers teaching to help them upgrade their knowledge and skills in the teaching of practical agriculture. Agricultural science teachers should always try to upgrade their knowledge in agriculture by consulting experts in the subject.
- Adequate funding for practical lessons on termly basis should be made available. Parents could also be asked to contribute through the PTA in support of practical agriculture. The government as a matter of agency should provide tools and equipment to basic schools for effective teaching and learning of the subject.



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## APPENDIX

### QUESTIONNAIRE

The purpose of this questionnaire is to collect data for an academic exercise only. Your candid opinion and views on the subject would be very essential and useful for this study. Information given in this work shall remain confidential

**Please tick (√) to show your response if 'yes' or 'no' to the following questions and state your opinion where applicable**

**Interview questions for students**

**Bio data / Background information**

Sex Male ☐ Female ☐

**Research question 1: What are some of the attitudes of students toward practical Agriculture?**

1) Would you like to take agriculture as a profession? Yes ☐ No ☐

   if no why? .....

   ……

2) Do students show a good attitude during practical lessons? Yes ☐ no ☐

3) What can be done to encourage the active participation students in practical lesson?

   ……

   ……

**Research question 2: Are there any agriculture resources in the school?**

4) List any four agriculture resource in the school. ……

……..……

5) Apart from the cutlass and the hoe, mention any other four modern agricultural equipment or tools you have seen or used before……

**Research question 3: 3What measures can be put in place to help form two pupils of Tamale Senior High School to develop a positive attitude towards practical agriculture lessons?**

6) Will you be happy if much emphasis is laid on the teaching and learning of practical agriculture? Yes ☐ No ☐

7) Would you like to offer agriculture as a course at the tertiary level? Yes No

if no why. ……..…… …

**Research question 4: What is the level of attention given to teaching and learning of practical agriculture**

8) Do you normally go out of the classroom for agricultural practical lessons?

Yes ☐ No ☐

9) How often do you go out for agriculture practical

a) Never (b) once a year (c) once a term (d) more than once a term

**QUESTIONNAIRE FOR TEACHERS**

The purpose of this questionnaire is to collect data for an academic exercise only. Your candid opinion and views on the subject would be very essential and useful for this study. Information given in this work shall remain confidential

**Please tick (√) to show your response if 'yes' or 'no' to the following questions and state your opinion where applicable**



Please fill in the blank spaces and tick where applicable

**Bio-data/background**

1. Sex a) Male (b) Female

2. Qualification

(a) Academic……..……

(b) Professional……..…….

3. What subject/ subjects do you teach?…….

4. How long have you been teaching this/these subject(s)?……...…..

**Research question 1: What are some of the attitudes of students toward practical Agriculture?**

5. What attitude do students put up towards practical lessons?

(a) Very interested (b) interested (c) no comment (d) less interested (d) not interested

6. During practical lessons, what proportions of students turn up agricultural practices?

(a) 75% or more (b) more than 50% (c) about 50%

(d) more than 25% (e) less than 25% (f) none

**Research question 2: Are there any agriculture resources in the school?**

7. Are there any Agricultural Science resource in the school? (a) Yes (b) No

Please mention a few …….

……

……...

8. What are some of the major agriculture equipment that you have in the school? State at least five ……..……..……

……...……..……

9. Do you have school farms? (a)Yes (b) No

10. What type of farm do you have?

(a) School farm (feeding students) (b) demonstration farm (c) garden

**Research question 3: What measures can be put in place to help form two pupils of Tamale Senior High School to develop a positive attitude towards practical agriculture lessons**?

11. Do your students actively participate in the practical lessons? Yes ☐ No ☐

12. If no to question (7) above, what can be done encourage their active participation in the lesson..…… ……

……

……

……

**Research question 4: What is the level of attention given to teaching and learning of practical agriculture**

9. How often do you have practical lessons with your students within a term?

(a) Weekly (b) monthly (c) once a term (d) never

11. How often do you go on field trips with students?

(a) Never (b) once a year (c) once a term (d) more than once a term



**QUESTIONNAIRE: Interview questions for parents**

The purpose of this questionnaire is to collect data for an academic exercise only. Your candid opinion and views on the subject would be very essential and useful for this study. Information given in this work shall remain confidential

**Please tick (√) to show your response if 'yes' or 'no' to the following questions and state your opinion where applicable**

1) What is your occupation? (Mention)……..…….

2) Do you have a farm or backyard garden? Yes ☐ No ☐ if no why?

3) If you said yes to question two, do you work on the farm with your children?

   Yes ☐ No ☐

4) Do your children actively participate in the work on the farm? Yes ☐ no ☐

   If no what can be done to encourage his/her participation in the work on the farm?

   ……

   ……

   ……

5) How do you see farming as a profitable occupation?

   Very good ☐ Good ☐ Very bad ☐ bad ☐

6) Are you satisfied with the living standard of farmer? Yes ☐ No ☐

7) Do you see any importance in the learning of practical agricultural in schools?

   Yes ☐ No ☐

8) What do you wish your child to become in future (mention it) ……

9) Would you encourage your child to take agriculture as a profession? Yes ☐ No ☐

if no why? .....

……

……