# AGRICULTURAL SCIENCE CURRICULUM CONTENT AND SECONDARY SCHOOL LEAVERS' JOB PERFORMANCE IN AGRO-BASED INDUSTRY IN AKWA IBOM STATE, NIGERIA

**Abstract**

This study investigated the extent to which Agricultural Science Curriculum Content predicts Secondary School Leavers' Job Performance in Agro-based Industry in Akwa Ibom State. Correlational research design was used for the study. The population of the study consisted of 532 Secondary School Leavers which was also used as the sample purposively because of the small size of Secondary School leavers in the thirty two registered Agro-Based Firms in three Senatorial Districts of Akwa Ibom State. Four research objectivesandqustions were raised while four null hypotheses were formulated to guide the study. Two research instruments were developed for data collection, tagged "Agricultural Science Curriculum Content Questionnaire (ASCCQ) and Secondary School Leavers' Job Performance Questionnaire (SSLJPQ). The Agricultural Science Curriculum Content Questionnaire (ASCCQ) was divided into two parts: I and II. Part I collected demographic data, while part II collected data on curriculum content exposure. The secondary school leavers' job performance Questionnaire had 20 items. The instruments were validated by experts and their reliability was ascertained using internal consistency method which yielded the reliability coefficient of 0.83 and 0.90 respectively. Data obtained were analyzed using mean to answer the research questions and simple linear regression to test the null hypotheses. The results showed that Agricultural Science curriculum content predicts secondary school leavers job performance in Agro-based Industry in Akwa Ibom State. Based on the findings, it has been concluded that Agricultural Science curriculum content can enhance the job performance of secondary school leavers in agro-based industry and the inclusion of these Agricultural content (crop cultivation content, livestock management content, feed formulation content and marketing content) in the Agricultural Science Curriculum will enhance job task of secondary school leavers. It is recommended, among others, that Agricultural Science should be made a core subject at the senior secondary school level, government should establish vocational centers for secondary school leavers' who might not want to further their education and all secondary school should have school farms for plants and animals.

**Keywords:** Curriculum Content, Agricultural Science, Job Performance and Agro-based Industry

## Introduction

Education remains the prominent basement for human capital development and a functional effort that maintains transformation of individuals and economic sector of the society. These potentials of education in the learners could only be attested to be functional when they (learners) have the capacity to translate the instructions taught them to tangible value for productive living. In Nigeria, one of the cadre of education believed to have a foundational blueprint to impact in the development of the learners for productive living is secondary education. Federal Republic of Nigeria through its National Policy on Education (2016) emphasized that secondary education was for provision of opportunity for a child to attain higher quality technological development, as well as inspire the learner with a desire for achievement and self-improvement. These blueprints were expected to have far reaching positive implications especially in advancing cognitive, social and economic development of the citizenry; improving communities' cohesion; enhancing scientific and technological possibilities of the citizens, and transforming economic fortune of the nation. For the policy to have effect on the

improvement of learners in specialized capacity, diverse subjects were introduced and incorporated into secondary education curriculum. One of such subjects is Agricultural Science.

Agricultural Science is one of the prominent subjects that prepares students/leaners to live independently while leading a productive life. Agricultural Science is one of the Trade/Entrepreneurship subjects introduced into the Nigerian secondary school curriculum by the Federal Government. Umoh (2024) explained that the inclusion of Trade/Entrepreneurship subjects is to ensure that every senior secondary school graduate would be well prepared for higher education as well as acquire relevant functional skills needed for poverty eradication, job creation and wealth generation. To actualize the objectives embedded in the secondary education curriculum and blueprint, Agricultural Science was introduced as one of the entrepreneurial curricula that groom learners that can manage the abundant in agricultural sector in Nigeria. The subject is structured to effectively tackle the case of students' apathy in agriculture, encourage practical involvement of students in agricultural sector, empower them with agricultural competence and enhance their productivity for self-reliance. National Policy on Education (FRN, 2016) streamlined the objectives of Agricultural Science to include: encouragement of students in the use of their hands; the appreciation for the dignity of labour; familiarity with biological processes thereby instilling rationality in the students; increasing self-sufficiency and self-reliance in food production, as well as enhancing students interest in producing part of their food needs and improve their diet and thus minimize the cost of feeding. One of the essential areas that is of importance in agricultural science is production. Unfortunately, records have shown that the unemployment rate in Akwa Ibom State and Nigeria is very alarming and it could be said that those mostly affected are secondary school leavers. This perhaps could be related to the level of content and value orientation acquired by them in schools. It could be reasoned at this point that the quality of learners in the macro-society is in their effectiveness in designing and implementing tasks. The exposure to values and content that produce/promote such effectiveness can guarantee a school leaver a job as self or government employed.

Agricultural science and curriculum content in twenty first century society are considered very valuable as these facilitates the development of individuals, society and a nation by assisting in solving problems in a new way; influencing the development and employment of organization and income opportunities. Hosseini *et al.,* (2020) defined Agricultural content as those content needed to develop innovative products and services and create solutions for emerging market needs. Deducing from Hosseini, et al's definition in essence, it could be said that exposure to basic Agricultural curriculum content in the areas of livestock management, crop cultivation, marketing among others may promote employees desire for success; engender self-confidence; enhance zeal to diversify thought towards tackling challenges; and ensure that assigned tasks are deliberately implemented efficiently. Where these Agricultural content are lacking, it could result in a deficit in secondary school leavers' job performance. Whether this is true requires urgent and critical assessment in order to contribute to the productive survival of the agro-based Firms in Akwa Ibom State

One sector of the economy in Nigeria that has the capacity to boost employment creation is agro-based Firms. This sector of the economy as asserted by Oraka*et al.,* (2017) are industries which depend on agriculture for their raw materials so as to operate successfully in the production of finished goods that are useful to livestock and humans. Its importance ranges from boosting agricultural development, increasing the degree of self-reliance of emerging nations, including Nigeria, and speeding economic growth and long-term progress toward disparity eradication (Eniloloba*et al.,* 2022). However, in spite of its potentials, report abound that majority of them that were established especially as small and medium enterprises are either unproductive or out rightly collapsed (Ibidunni*et al.,* (2018), Ibidunni*et al.,* 2017, Okpara and Wynn, 2007). This unproductivity of these agro-allied enterprises may not be unconnected with the very quality of personnel employed to man and manage all resources and daily activities. Thus, every organization depends greatly on employees'

performance to achieve its goals and make optimal use of resources. Hence, the need to critically evaluate the job performance of school leavers in agro-based Firms since they form the greater percentage of employees of labour in Nigeria.

Job performance according to Hosseini *et al.,* (2020) is a set of employees' behaviour which contribute positively or negatively in achieving organizational goals. In other words, it could be regarded as a function of the diverse content acquired in the respective areas like snailery, goatry, poultry, fisheries and aquaculture. Other content are piggery, crop production, and feed formulation. The extent of exposure of these contents has the potency to either enhance or hinder the viability and productivity of agro-allied sector. Close observation of some agro-based Firms reveal that most of these school leavers employed in the sector seem to be unskilled and cannot execute their assigned responsibilities without close monitoring and supervision, thus, could be incriminated as part of the reasons some of these enterprises are unproductive and collapsed. Similarly, the ineffectiveness and inefficiency of school leavers employees' job performance may be blamed on their inadequate Agricultural skill base in this direction.

Agricultural Science Curriculum contents in the areas of crop cultivation, livestock management, feed formulation and marketing is argued to play significant roles in promoting the probability of agro-allied enterprise survival; enhances the employees' zeal to attempt to create values through recognition of business opportunity, effective management and risk-taking through the utilization of effective communication of content to mobilise human, financial and materials resources necessary to implement the tasks (Tyolumun and Umogba, 2008 in Owo, 2020). This could mean that Agricultural agro-allied employees need to possess ability and willingness to take informed risks and quality decision; be technically sound; resourceful and results oriented; and creative to achieve success in the business. Put succinctly, Nwaobiola*et al.,* (2018) postulate that improved performance in agro-allied production is anchored on quality education acquisition by farmers.

It is worthy of note to state that exposure to crop production, livestock management, feed formulation and marketing content is one of the cardinal reasons that could be used to assess the viability of the Agricultural Science teaching and learning in secondary schools as well as secondary school leavers' job performance in agro-based firms. These area covers the exposure to knowledge on many aspects of production from identifying different breeds to production management and from facilities used and needed for specific animals to nutritional requirements, and content formulation. It could infer that the need of these development and technical ability may have leveraged a significant impact on work performance, while needs of existence, needs of relation and the need of ability are enough evidence to conclude that each variable has a significant impact to work performance too. Palumbo *et al.,* (2015) by using analysis regression concluded that content have significant influence on cognitive ability on task performance. Basing on this perspective however, despite the fact that the prominent aims of Agricultural Science is to generate Agricultural content in these related areas of consideration, the agro-based Firms are still found wanting in the areas of low production capacity, ineffective manpower that most often could be responsible for the collapse of many agro-based Firms as well as lost in input materials. This state of contemplation therefore made the researcher to ask: could this dwindling growth in the agro-based Firms in Akwa Ibom State be as a result of poor exposure to Agricultural content in Agricultural Science? If yes, what is the extent to which exposure to Agricultural content predicts job performance of secondary schools Agricultural Science leavers' in Agro-based Firms? This forms the basis for this study.

**Statement of the Problem**

A nation that is deficient in agriculture is bound to lag behind in economic development and employment. The rate of unemployment among youths in Nigeria has become quite high and worrisome. The Trading Economics Report (2023) maintains that the rate of unemployment in Nigeria has risen to 33 percent in 2022 and projected at 45 percent in 2023. This unemployment rate increased

from 17.9 percent in 2015 to18.7 in 2016; and to 33.3 in 2021. Secondary schools leavers are not exempted. To this end, the Federal Government of Nigeria (FGN) has made some efforts towards addressing unemployment rate by supporting and initiating some entrepreneurship programmes such as; youth entrepreneurship support (YES) anchored by Bank of industry (BOI), Youth empowerment and Development Initiative (YEDI), Subsidy Reinvestment and Empowerment Programme (SURE -P), National Economic Empowerment Strategy (NEEDS), as well as reforming secondary school curriculum to include Agricultural science content development. (FRN, 2013).

Given the strategic role of agriculture in job creation, skill based subjects that will help students acquire risk- taking curriculum content, innovative content, financial management content, decision taking content, accountability skill and many more content have been introduced into the content and learning experiences of subjects offered in the secondary school system by the federal government of Nigeria .The goals being the development of functional content that would make Secondary School leavers self-reliant and job creators, thereby contributing to economic growth and development (FRN, 2016).

Unfortunately, these goals have not been realized as there is continuous dwindling in the contribution of agricultural sector and food sufficiency as well as rise in the hunger/poverty rate and the population of malnourished Nigerians. This is an aspect of Nigeria's development that calls for urgent and critical attention. In Nigeria, in spite of the abundance of aerial and viable land distribution, marine resources, cultivable land, livestock, crops and human resources among others, the prevalent of food insecurity also reduces the national broadband level. This unfortunate state of affairs may not be unconnected with farmers' job performance.

Greater percentage of Nigerian youth are not practicing or involved in agricultural production despite government's effort in subsidizing farm input resources such as improved varieties of livestock, crops, fertilizers and grants to entice the youth into farming and agro-allied business. One of the prominent factors that could be responsible for the secondary school leavers' apathy in practicing agriculture as well as leading to poor job performance seems to be lack of basic Agricultural farming knowledge. Those that accept the agro-allied sector as a mean of employment for livelihood tend to exhibit lackadaisical attitude and lack zeal for self-development. Thus, the researchers field observation of some farms revealed an avoidable lost in the death of birds (poultry birds), snails, pigs and invasion of diseases, which often might be as a result of lack of basic competence in the management of these agro-allied commodities which depend on the staff job performance. These unfortunate scenario informs the contemplation of the researchers to ask the following questions: could exposure to Agricultural content predict Agricultural Science leavers job performance? If yes, what is the extent of the prediction? This forms the basis for this study to determine the extent to which agricultural science curriculum content predicts secondary school leavers' job performance in Agro-based firms.

**Purpose of the Study**

The purpose of the study was to determine how the agricultural Science Curriculum Content predicts job performance of Secondary School Leavers in Agro-based firms in Akwa Ibom State.
Specifically, this study sought to determine:
  i.   The extent to which exposure to crop cultivation content predicts job performance of secondary school leavers in Agro-based Industry in Akwa Ibom State.

  ii.  The extent to which exposure to livestock management content predicts job    performance of secondary school leavers in Agro-based Industry in Akwa Ibom State.

  iii. The extent to which exposure to feed formulation content predicts job performance of secondary school leavers in Agro-based industry in Akwa Ibom State.

iv.　The extent to which exposure to marketing content predicts job performance of secondary school leavers in Agro-based Industry in Akwa Ibom State.

## Research Hypotheses

The formulated research hypotheses that would guide the study were as follows:

i.　Exposure to crop cultivation content does not predicts job performance of secondary school leavers in Agro-based Industry in Akwa Ibom State is not significant.

ii.　Livestock management content does not predicts job performance of secondary school Leavers in Agro-based Industry in Akwa Ibom State is not significant.

iii.　Exposure to feed formulation content does not predict job performance of secondary school leavers in Agro-based industry in Akwa Ibom State.

iv.　Exposure to marketing content does not predicts job performance of secondary school leavers in Agro-based Industry in Akwa Ibom State is not significant.

## Literature Review
## Potentials of Agricultural Science Curriculum content in Secondary Education

Agricultural science is one of the most valuable subjects in secondary education because of its potency to enhance food sufficiency, create wealth through employment generation as well as spur self-discipline and self-reliant. The agricultural education had the tendency to assist students to:

i.　Appreciate agriculture better as the main provider of food and fibre for our ever-increasing population
ii.　Acquire basic knowledge of the various agricultural products such as cocoa, palm produce that will help them to seek to raise foreign exchange for the country by exporting these products.
iii.　Improve food sufficiency
iv.　Improve farming system
v.　Develop scientific method of thought especially in the practical work experience.
vi.　Draw proficient conclusions on the basis of observation and experimentation.
vii.　develop manipulative content through handling of equipment and apparatus;

The relevance of the current senior secondary vocational agriculture curriculum has raised divergent views from different stakeholders. For instance, Ochu and Umunnagbu (2013) in a study titled: Relevance of the Practical Content of the Senior Secondary Vocational Agriculture Programme" opined that the programmes are suitable for developing the right caliber of middle level manpower for the agricultural subsector of the economy. The curriculum in agriculture was designed with focus on:
i.　Encouragement of students in the use of their hands;
ii.　The appreciation for the dignity of labour;
iii.　Familiarity with biological processes and thereby instilling rationality in the students;
iv.　Increasing self-sufficiency and self-reliance in food production students to produce part of their food needs and improve their diet and thus minimize the cost of feeding in their secondary schools. Federal Republic of Nigeria (2013).
Agriculture is an important occupation in Nigeria with over 70% of her population depending on it directly or indirectly for livelihood. It provides the bulk of employment, income and food for the rapidly growing population as well as supplying raw materials for agro-based industries. Orld Bank reported that most African economies are dominated by agriculture, which contributes about 17% to the Gross Domestic Product (GDP), 40% of exports, employment creation and has the potential to

reduce poverty, thus, the sector has been described as the engine for economic growth and improved livelihoods in Africa (World Bank 2014).

The impact of developing students' content in Agriculture cannot be overemphasized. According to Ani (2013), improving the students' ability for rising agricultural productivity is a prerequisite for social and economic development. This is because agriculture forms the bedrock of economic activities. Obviously, development, food security and poverty mitigation will not be truly achieved without skill development in developing country. Assisting the farmers to enhance their livelihoods and food security in a sustainable manner is therefore a great innovation. Broadly put, increases farmers is an avenue for agricultural productivity which is central to growth, income distribution, improved food security and alleviation of poverty in rural Africa (FAO, 2002).

Hanushek, (2013) point out three mechanisms through which educational skill acquisition may affect economic growth. First, it can increase the human capital (quality of labor) of the labor force, increasing labor productivity and thus transitional growth toward a higher equilibrium level of output (augmented neoclassical growth theories). Second, education skill training can increase the innovative capacity of the economy, which encourages economic growth (endogenous growth model). Thirdly, education can make possible the diffusion and transmission of knowledge needed to understand and process new information, which again promotes economic growth.

Similar to present finding Ram *et al*., (2017) also assess the importance of training and concluded that the farmer needs training. Chatterjee *et al*., (2015) highlights the importance of farmers training and state that the success on poultry production depends primarily on the locally adapted bird employed, favourable environment and availability of good feed.

 Ige, Abiodun and Temitope (2016) examined agricultural experiences as correlates of secondary school students' achievement and career decisions in agricultural science. The study adopted a survey research design. Simple random sampling technique was employed in selecting six hundred (600) senior secondary schools (SS II) Agricultural Science Students. Instruments used were Career Decision Questionnaire, Agricultural Experience Questionnaire and Students Achievement Test in Agriculture. Four research questions were raised to guide the study. Data was analysed using Pearson Product Moment Correlation and Multiple regression. The results revealed that poultry, fishery and cashew farming had significant correlation with students' achievement (r=-0.093, -0.127 and -0.127) and career decision (r=-0.155, -0.136 and -.132) in Agricultural Science respectively. The findings showed that there were significant joint contributions of agricultural experiences to students' achievement (F $(3,600)$ = 3.992; P < 0.05) and career decision (F$(3,600)$ = 22.807; P < 0.05) in Agricultural Science. The findings further revealed that fishery ($\beta$= -0.79) was the greatest predictor of students' achievement in agriculture while poultry ($\beta$ = -0.333) mostly predicted students career decision in Agricultural Science. It was recommended that curriculum planners should systematically introduce agricultural science experiences (poultry, fishery and cashew farming) into the curriculum content of all the Secondary School Students and it should not be streamlined to only science students alone because of its educational value and it relevance to the needs of the learner and society as a whole.

The achievement of better academic performance in Agricultural science is a function of various factors. Farauta and Amuche (2013) opined that some teacher-related factors are necessary for effective implementation of the curriculum among which is teacher's moral disposition, commitment, and teaching styles were indicated. Use of modular teaching methods, establishment of good school – community relationships and combined use of performance–based test and written test used for the purpose of occupation content acquisition. Other factors required for effective teaching and learning of Agricultural Science in schools are:

i. Classrooms for formulating, postulating, interpreting and explaining theories;
ii. A library where additional information are gathered to add to what already exist in order to expand learners horizon of the subject matter;

iii. A laboratory where theories are experimented upon and should be standard enough to accommodate whatever experiment in practice
iv. A school farm where the results of the experiment are to be tested and demonstrated.

Garba in Umar and Rashid (2019) infer that the development of abilities in inclusive education among students in Agricultural Science depends largely on the kinds of abilities taught to the learners, methods or transmission techniques, assessment techniques used to evaluate the learners, and the accessibility of equipment to teach the learners the abilities.

However, many factors are acclaimed to be affecting the teaching and learning of Agriculture in school. For example, Otekunrin (2014) investigated challenges facing the effective teaching and learning of Agricultural Science in public secondary schools of Ibadan North local government area of Oyo state and ways of handling such challenges. The study examined students' attitudes to Agricultural Science as a subject finding out whether students' attitudes to the subject had any relationship with their performance in the subject. The population for this study was made up of all Agricultural Science teachers, Vice Principals, Principals and SSS II students offering Agricultural Science in all public secondary schools in Ibadan North local government area of Oyo State, Nigeria. Furthermore, simple random sampling technique was used to select three schools from all the public secondary schools in the area. A total of thirty Agricultural Science teachers, Vice Principals, Principals and one hundred SSS II students in the selected schools constituted the sample size.

Two different structured questionnaires were administered. The first one was for the teachers. It addressed challenges facing Agricultural Science as a subject with suggested ways of managing the challenges. The other questionnaire was for the students. It addressed their attitudes to the subject. The two instruments used a four-point likert assessment scale. Reliability index value was obtained for the research instruments using Cronbach's Alpha. Agricultural Science Achievement Test was conducted for the students. The questions were selected using item analysis technique. The performance of the students in the Achievement Test was categorized using the stanine values of the Students' Result Format (SRF). Chi-square test of independence was used to ascertain if there was any relationship between the students' academic achievement in Agricultural Science and their attitudes to the study of Agricultural Science as a subject. The major challenges confronting effective teaching and learning of Agricultural Science in public schools in the area are the use of traditional methods of teaching, irregular practice by students on school farms, inadequate farmlands for practical lessons and inadequate fund to manage practical oriented Agricultural Science. The solutions proffered included provision of adequate farm lands, proper funding of Agricultural science and training of teachers that are sound in concept and pedagogy. Also, there exists a significant relationship between grades obtained by the students in Agricultural Science Achievement Test and the attitudinal variable of sustained students' interests in Agricultural Science lesson throughout the lesson period.

**Secondary School Leavers' Exposure to Crop Cultivation Content**

Skill according to Osinem (2014) is the expertness, practiced ability or proficiency displayed in the performance of a task. The author explained that it is the ability to perform a task acquired through repetition of the operation. In the opinion of Okorie (2014), to possess a skill is the demonstration of acting, thinking or behaving in a specific activity in such a way that the process becomes natural to the individual through repetition or practice. Skill in the context of this study is the ability of secondary school graduates to perform the various operations in crop production with maximum proficiency to ensure the steady supply of its tubers and increase in farm profitability. The exposure to content by individuals prepares them for success in the world of work. However, if content in crop production are identified, packaged into training programmes and integrated into content acquisition centres for training unemployed youths, it could help to provide occupational opportunities for interested youths as well as school leavers thereby making them to positively contribute to building the economy of the nation thus, reducing attendant vices posed by idleness.

Agricultural content are the capabilities a specialist in the field of agriculture must possess in order to work as a professional in the area (Osinem, 2014). Entrepreneurship training (ET) according to Mafe (2013) is a planned and supervised training intervention based on stated and specific learning and career objectives, and geared towards developing the occupational competencies of the participants including crop production competencies. Ugwuanyi (2010) noted that ET is the key factor in enhancing the efficiency and expertise of the workforce. According to the author, it prepares Agricultural Education students for labour market and crop production occupations. It has become an innovative phenomenon in human resources development and occupational training in Nigeria.

Osinem and Nwoji (2013) reported that ET has reached wide dimensions in recent times and all industrial and commercial establishments contribute to make it operational by providing specific content in form of experience in different occupations including crop production occupation. There is hardly any sizeable industrial and commercial establishment in different works of life that is not involved in the scheme. The authors noted that the rapid growth in the number of students and institutions was an indication of the acceptability of the scheme by institutions, employers and students for occupational experience growth of the participants including Agricultural Education students.

On the impact of ET in technical skill development jointly studied by the Industrial Training Fund and the University of Jos (2011), it was reported that all the three employers in the study positively indicated that the period of exposure of Agricultural Education students to agricultural industry did influence the exposure to technical content in crop production and other occupations. Similarly, the result showed that over half of the students strongly agreed that the period of exposure to agricultural industry influenced their exposure to technical content in crop production. This was an indication of the importance of the course to the exposure to content in crop production and other occupations for the development of the country.

Also, Olabiyi (2014) asserted that the ET is an arm of industrial training fund that emerged as a stimulating factor in making education real and meaningful to the students as students acquire specific content relevant to their occupations. Olabiyi noted that things were fast changing particularly as it was becoming a thing of past when white-collar jobs were viewed with not only reverence but as most rewarding type of work for a young man. According to the author, the programme was viewed as having many advantages in preparing people for self-employment in their chosen occupation including crop production occupation, which ultimately would lead to a rapid development of the country.

Therefore, ET helps Agricultural Education graduates acquire agricultural experiences and content in production of various crops. These content will help the graduates secure employment in crop production industries or the content could be utilized by the Agricultural Education graduates to establish and manage crop farms. In a study by Ogungbade *et al.* (2014) who determined work skill required by secondary school graduates for entry into groundnut production enterprise in Kaduna state and found out that they needed content on land acquisition, clearing and raking, tillage, selection of planting materials, marking of the farm plots to specifications among others. Lindemann-Matthies (2015) showed in a pre-posttest-study that the more plants students know, the more they appreciate them. Therefore, nature can be appreciated and protected, because according to Jäkel (2015), students can only appreciate what we know. Summarising those previous surveys, a lack of knowledge and interest in plants among students has been scientifically proven. And even if we are in daily contact with the fruits of crops and use them, students' interest in agriculture and crop plants is low (Bickel and Bogeholz , 2013; Holstermann and Bogeholz, 2017; Kinchin, 1999; Lowe, 1987).

**Secondary School Leavers' Exposure to Livestock Management Content**

Livestock production is a major component of farm economies in developing countries, contributing not only food but also hides, fibres, fertilizer and fuel, as well as a modest, interest-producing capital which can easily be mobilized when unforeseen needs arises. In addition, livestock,

whether large or small, are part of the social and cultural reality of several million small farmers, for whom husbandry represents an element of economic stability and sustainability.

Students in secondary school should be acquainted with knowledge about the following species: beef cattle, dairy cattle, swine, sheep, goats, horses and poultry. The knowledge has to cover many aspects of livestock production from identifying different breeds to production management and from facilities used and needed for specific animals to nutritional requirements.

The essential content students should acquire in livestock production are as follows:
i. Skill in analyzing the growth and development of the livestock industry as a global commodity.
ii. Skill in examining the stages of animal growth and relate it to market readiness.
iii. Skill in evaluating marketing practices for livestock, meat and meat products.
iv. Skill in exploring career development and entrepreneurship opportunities.
v. Skill in defining and use proper basic livestock terms and vocabulary.
vi. Skill in learning general principles of beef, dairy, swine, sheep, goat, horses and poultry production and management.
vii. Skill in discussing the importance of livestock nutrition.
viii. Skill in identifying different identification methods used on livestock.

In recognition of the impact of Agricultural training (ET) in agricultural manpower development, Okorie (2014) stated that livestock industries should include enterprises in developing agricultural training programmes especially designed to meet employers' needs. However, the author warned that care must be taken not to limit the employment opportunities and job mobility of the products by putting them through straight-jacket-job specific training programmes.

In an attempt to suggest the solution to the nation's skill gap, Adetokunbo (2014) noted that the Government and the industrial sector had put in place arrangements for professional students of tertiary institutions, including Agricultural Education students, to undergo short-term practical training in their chosen vocation like livestock production through a Student Industrial Work Experience Scheme (SIWES).

Adetoro in Afolalu (2009) identified ET as necessary for proper job preparation in livestock enterprise. The author stated that for productivity to be enhanced by students or new entrants into the livestock enterprise, there is really the needs to early exposure of students to the value and content of the livestock industry. Therefore, without appropriate experiences and content, young graduates are not properly prepared for work, norms, and role behaviour among others which students will face in livestock enterprise after school.

Agricultural training according to Olabiyi (2014) is hinged on the fact that it will meet the needs of students while in school and after graduation. The author stressed that it has the advantage of preparing young people for employment in livestock industry which could lead to a rapid development of the country. According to Industrial Training Fund (ITF) (2013) Agricultural skill training programme is designed to expose and prepare Agricultural Education students of institutions of learning for the industrial work situation they are likely to meet in livestock enterprise after graduation.

**Secondary School Leavers' Exposure to Feed Formulation Content**
Feed formulation is the process of quantifying the amounts of feed ingredients that need to be combined to form a single uniform mixture (diet) that supplies all of their nutrient requirements. Adebayo (2021) explains feed formulation as the process of constructing a feed or diet formula for animals. Since feed accounts for 65-75% of total live production costs for most types of livestock throughout the world, a simple mistake in diet formulation can be extremely expensive.

Livestock production and consumption of animal products are crucial to the economic and nutritional well-being of millions of people around the world. Animal feed plays a leading role in the food industry as the most important contributor to safe, abundant, and affordable animal protein for a growing population. The role of animal feed in the production of safe food is recognised worldwide.

Feed is becoming more detailed, sophisticated, and better balanced for the needs of the animal in question. Even the smallest deviation or variation in feed composition can have a big influence on the performance of an animal. Very specific and concentrated components such as pure amino acids are also increasingly being added. A small shortfall in the desired wheat in feed will probably have little influence because the wheat itself has most of the nutrients of the end mix. A specific component like an amino acid instead alters the content of the end product, and probably the results at the farm.

Feed formulation is the process of quantifying the amounts of feed ingredients that need to be combined to form a single uniform diet for livestock to supply all of their nutrient requirements. Onebunne (2016) explains it as the process of matching the nutrient requirements of a class of animals with the nutrient contents of the available ingredients in an economic manner. This requires indepth understanding of the requirements of the animal, nutrient contents including digestibility values and prices of the ingredients. Since feed accounts for 65-75 per cent of total production costs for most farm animals throughout the world, a simple mistake in diet formulation can become a disaster.

Onebunne (2016) opines that feed formulation requires indepth knowledge of animal nutrition, particularly the nutrient requirements and the nutrient composition of the ingredients. It also requires nutritionists to know whether using certain proportions of some ingredients will impact on issues such as feed flow through the mill, pellet quality of the diet, response of the diet to feed additives, or gut health of the animal. Consideration should also be given to the colour, smell and particle size of the feed.

Feed formulation requires thorough understanding of the:
a. Nutrient requirements of the particular livestock class (for meat or breeders)
b. Feed ingredients in terms of nutrient composition and constraints in terms of nutrition and processing, and
c. Cost and availability of the raw materials. (p.80)

Adebayo (2021) maintainsthat when formulating livestock feeds, the fundamental things to consider are;
i. Nutrient Requirement of the animal.
ii. Availability of the feed Ingredients.
iii. Cost of feed production. (p.65)

According to Adebayo (2021), in formulating feed, it is essential to consider the nutrient requirement of livestock. That is the class of animals such as broilers, layers, turkey, fish or others. Why do they need the nutrients? How much of these nutrients does a healthy diet require? How will the body of the animals utilize these nutrients for growth and maintenance?

The nutrient requirement of various categories of livestock differs. For example, to formulate feed for broilers, their nutrient requirement differs from turkey. Also, as the animals grow, their nutrient requirement differs. For instance, in formulating feed for broiler starter, from day-old to 3 weeks, their nutrient requirement differs from those of 3 to 6 weeks and above. With the feed ingredients at the farmer's disposal, it is expedient to decide to meet the nutritional requirement of the animals so that the formulated diet will not fail to meet the nutrient requirement of the animals.

Also, taking cognizant of the digestibility of the nutrients to be supplied in a feed formula is vital to avoid overloading the animals with these nutrients. Of course, the animals need protein, they need amino acids, but what quantity of these do they need? The farmer must supply them the exact nutrient they will need. About forty specific nutrients need to be present in the diet to support life and for growth and optimum production. These are energy, as well as 13 essential amino acid, vitamins, essential minerals and fatty acids. In addition to these nutrients, the farmer needs to make sure that whatever feed ingredient that he has at his disposal can meet the needs of the animals.

Apart from the nutrient requirement of animals and the digestibility of the nutrient by the animals, the feed ingredients at farmer's disposal also determine feed formula. The whole essence of nutrition is to define the nutrient animals require to perform at a certain level, then the farmer needs to

identify the feed ingredient that will supply the nutrient. Not all available feed ingredients can be used because though they may contain the nutrient quite all alright, but the nutrients may not be readily available. The farmer needs to identify a suitable source of those nutrients and match these two in a diet formulation to obtain a balanced diet.

Balanced animal diets are composed of feed ingredients whose components can be digested and absorbed by the animals so that the nutrient they contain can be useful. There is no point giving blood meal or feather meal that is very high in protein content when the animals cannot absorb them. Therefore, it is important to know the nutrient required by the animals and the feed ingredients e.g. maize for energy, soybean meal or GNC for protein, or, wheat offal or corn bran for fibre. That variability of having different ingredients at the disposal that farmer can play around with is what makes feed formulation interesting. When formulating feed, there is a need to take note of the cost. To ensure profitability, the cost of the feed formulation must not be on the high side. Research has shown that about 70% of the total cost in livestock production is feed. So, when formulating feed, the farmer has to decide that the formula he chooses and the required ingredients to be used are supplied economically. Also, note that in considering cost, it should not be at the detriment of the animals. That is, the quality of the feed should not be compromised.

Most large scale farmers have their own nutritionists and feed mills, whereas small ones usually depend on consultant nutritionists and commercial feed mills for their feeds. It is therefore essential that formulations are accurate because once feeds are formulated and manufactured; it is often too late to remedy any mistakes or inaccuracies without incurring significant expenses.

Feed formulation is both a science and an art, requiring knowledge of feed and the particular animal, and some patience and innovation when using formula. Typical formulations indicate the amounts of each ingredient that should be included in the diet, and then provide the concentration of nutrients in the diet. The nutrient composition of the diet will indicate the adequacy of the diet for the particular class of livestock for which it is prepared. Feed formulation requires thorough understanding of the:
   a. Nutrient requirements of the class of livestock;
   b. Feed ingredients in terms of nutrient composition and constraints in terms of nutrition and processing, and
   c. Cost and availability of the ingredients.

Ode *et al.,* (2012) asserted that feed formulation skill train students to convert raw food and other farm produce into edible, usable and palatable form, helps to store perishable and semi-perishable agricultural commodities, avoid excess in the market, check post-harvest losses and make the produce available during off-season, generates employment, development of "ready-to-consume" products, saves time for cooking and helps in preservation thus making food safe for consumption.

**Secondary School Leavers' Exposure to Marketing Content**

Marketing is the process of identifying anticipating and analyzing the general satisfaction of human wants and needs and it encompasses everything. Marketing is different from selling based on the fact that it identifies and anticipates consumer needs even before production. The content required in by students in marketing are:

   a. To transfer the products to the final consumers
   b. To know where and when to sell your products
   c. To know how the market can be expanded or how existing market can be expanded
   d. To know how and when to combat unethical practices
   e. To know what to produce, how to produce and for whom to produce for
   f. To know how much marketing job should be done, either as an individual or as a member of the group

g. To find out which of many different marketing arrangement are being offered by different methods of selling their products.

According to Olomola (2013), agricultural marketing comprising of all activities involved in supply of farm inputs to the farmers and movement of agricultural products from the farms to the consumers.

i. The agricultural marketing system includes two major sub-system viz. product marketing and input (factor) marketing. The product marketing sub-system includes farmers, village/primary traders, wholesalers, processors, importers, exporters, marketing cooperatives, regulated marketing committees and retailers. The input sub-system includes input manufacturers, distributors, related associations, importers, exporters and others who make available various farm production inputs to farmers.

ii. The agricultural marketing system is understood and developed as a link between the farm and non-farm sectors. A dynamic and growing agriculture sector requires fertilizers, pesticides, farm equipments, machinery, diesel, electricity, packing material and repair services which are produced and supplied by the industry and non-farm enterprises. The expansion in the size of farm output stimulates forward linkages by providing surpluses of food and natural fibres which require transportation, storage, milling or processing, packing and retailing to the consumers. These functions are performed by the non-farm enterprises. Further, if the increase in agricultural production is accompanied by a rise in real incomes of farm families, the demand of these families for non-farm consumer goods goes up as the proportion of income spent on non-food consumables and durables tends to rise with the increase in real per capita income. Several industries, thus find new markets for their products in the farm sector.

iii. The marketing system should be such as may bring about the overall welfare to all the segments (producers, consumers, middlemen and traders) society. Government act as a watch-dog in ensuring the interest of all the groups associated in the marketing.

iv. The subject of agricultural marketing includes marketing functions, agencies, channels, efficiency and costs, price spread and market integration, producer's surplus, government policy and research, training and statistics on agricultural marketing and imports/exports of agricultural commodities.

v. The overall objective of agricultural marketing in a developing country like India is to help the primary producers *viz.* the farmers in getting the remunerative prices for their produce and to provide right type of goods at the right place, in the right quantity and quality at a right time and at right prices to the processors and/or ultimate consumers on the other.

The issue of the state of marketing content education and the extent to which these adequately prepare students for employment, have been widely discussed not only in Marketing Intelligence and Planning, but elsewhere as well (Taylor 2013; Brennan and Ankers 2014; Gray *et al.*, 2017; Hyman and Hu 2015; Davis *et al.*, 2012; Hill *et al.*, 1998). Both Evans *et al.*, (2012) and Lynch (2014.) argue that marketers need to possess more of well rounded skill set for modern working, a point reflected in the research of Martin and Chapman (2016). The latter argue that traditional marketing courses are too narrow and students, particularly if they are going to work in SME marketing, need a broader skill base. McCole (2014) raises the point that academia fails to fully understand how marketing is actually carried out in practice and consequently, large parts of what is taught are inappropriate. Central to the whole debate here is the actual content marketing graduates require and whether or not current educational practices are adequately equipping them to meet the demands of a changing and complex work environment.

**Research Method**

The study adopted correlational research design. Correlational research design according to Effiong (2013), is a non-experimental type of research design that involves observing two variables in

order to establish a statistically corresponding relationship between them. The correlational research design is suitable for this study because it helped in the determination of the extent of variability in relation to independent sub-variables (crop cultivation content, livestock management content, feed formulation content, marketing content) and the dependent (job performance of secondary school leavers in Agro-based Firms). In other words, correlational research design will assist in interpreting the extent of changes in job performance of secondary school leavers' in Agro-based Firms by the level of exposure to the mentioned areas. Population of the study comprised all the Secondary School Leavers' employees in the 32 registered agro-based Firms in three senatorial Districts of Akwa Ibom State (All Farmers Chairman's Office, Nwaniba, 2021). This gave a population size of 532 secondary school Leavers. The sample of the study comprise 532 Secondary School leavers' employees in the 32 registered agro-based Firms in three secondary Districts of Akwa Ibom State. Since the population of the study is manageable in size, purposive sampling technique was used; hence all the participants were purposively selected for the study. Meanwhile, the Managers/Directors of the farms served as raters (three Managers/Directors from each farm.

The data for the study were collected using two instruments: A researcher designed instrument entitled "Agricultural Science Curriculum Content Questionnaire (ASCCQ)" and "Secondary School Leavers' Job Performance Questionnaire (SSLJPQ)". The ASCCQ elicited information from the secondary school leavers employees of the sampled agro-based Firms and as such, has two parts. Part one elicited information on the name of the farm, respondents' name, highlight of the content needed in a given farm (constituents of the farm). Part two consisted of four (4) clusters representing four independent sub-variables (students' exposure to livestock management content, crop cultivation content, marketing content, feed formulation content, fish cultivation content, snail cultivation content and poultry production content). These clusters have 56 items designed on a declarative statement of five points scale of Very High Extent (VHE), High Extent (HE), Moderate Extent (ME), Low Extent (LE) and Very Low Extent (VLE) which elicited information on the extent of secondary school leavers' ability to carry out assigned tasks and responsibilities in the farms (Agro-based Firms). Each of the clusters has seven items. The scale was coded in positive perspective in descending order: VHE, 5, HE, 4, ME, 3, LE, 2 and VLE, 1.

The Secondary School Leavers' Job Performance Questionnaire (SSLJPQ) elicited information from the raters which were managers (Directors) of each of the farms visited. The SSLJPQ was structured on 20 items declarative statement of four point scale of Excellent, Good, Fair and Poor which elicited information on the extent of secondary school leavers' Job Performance in Agro-based Firms. The scale was coded in positive perspective in descending order: of Excellent 4, Good 3, Fair 2, and Poor 1. The instruments were validated by three experts attest to the instruments language appropriateness, accuracy, suitability and completeness and to elicit required responses for the study. The reliability coefficients of the Agricultural Science Curriculum Content Questionnaire (ASCCQ) and Secondary School Leavers' Job Performance Questionnaire (SSLJPQ) were determined using 30 secondary school leavers for the trial testing. These school leavers were not part of the study's population but were working in unregistered farms. The data collected from the trial testing were used to ascertain the internal consistency of the instruments using inter-item approach. The reliability of the instruments was estimated using Cronbach alpha statistical. The reliability coefficient of 0.83 was obtained for the ASCCQ while reliability coefficient of 0.90 was obtained for SSLJPQ. This was considered as highly reliable for the study.

Mean was used in answering research questions while Linear Regression was used in testing the hypotheses. According to Evans in Uzoaguli (2015), the following were used to answer research questions raised and determine the extent of prediction.

4.6 - 5.5      Very High Extent prediction
3.5 - 4.5      High Extent prediction
2.6 - 3.4      Moderate Extent prediction

| | |
|---|---|
| 1.6 - 2.5 | Low Extent prediction |
| 0.5 - 1.5 | Very Low Extent prediction |

Also, the decision for the interpretation of the results of hypotheses were taken using F-value at .05 level of significance thus:

i.  When calculated F value is less than critical F value, null hypothesis is accepted.
ii. When calculated F value is greater than critical F value, null hypothesis is rejected.

## Results
## Test of Hypotheses
## Hypothesis 1

The extent to which exposure to crop cultivation content predicts job performance of secondary school leavers in Agro-based Industry in Akwa Ibom State is not significant.

Simple regression analysis was adopted to test this hypothesis. The result of the analysis was presented in Table 1;

**Table 1: Summary of Regression** Analysis of secondary school leavers' exposure to crop cultivation content and job performance

SUMMARY OUTPUT

| Regression Statistics | |
|---|---|
| Multiple R | 0.8652 |
| R Square | 0.7486 |
| Adjusted R Square | 0.7413 |
| Standard Error | 40.7457 |
| Observations | 532 |

ANOVA

| | Df | SS | MS | F |
|---|---|---|---|---|
| Regression | 1 | 677439.634 | 677439.6343 | 408.0435 |
| Residual | 531 | 227449.366 | 1660.2143 | |
| Total | 532 | 904889 | | |

Significance at *alpha*< .05;          degrees of freedom = 95
Source: Researcher's computation from field survey (2022)

The result in Table 1 reveals that at 95 degrees of freedom, and alpha level of .05, the *F* – calculated, was found to be 408.044 against the *F* - critical of 3.92 at the same level of statistical significance. Since the *F*-calculated is greater than *F*-criticalthen, the null hypothesis which states that; the extent to which exposure to crop cultivation content predicts job performance of secondary school leavers in Agro-based Firms in Akwa Ibom State is not significant was rejected and the alternate; accepted. This collaborates the fact that, the extent to which exposure to crop cultivation content predicts job performance of secondary school leavers in Agro-based Firms in Akwa Ibom State is very significant. The result also showed that, an $r^2$-value of .7486 further lends credence to the fact that, 74.86 percent of secondary school leaver's job performancein Agro-based Firms in Akwa Ibom State is predicated on their exposure to crop cultivation content. From the table also shows a *P* – value (0.000) was <*P* – critical of .005 at the same statistical significance, which further lends credence to the acceptance of the alternate hypothesis.

## Hypothesis 2

The extent to which exposure to livestock management content predicts job performance of secondary school Leavers in Agro-based Industry in Akwa Ibom State is not significant.

Simple regression analysis was adopted to test this hypothesis. The result of the analysis was presented in Table 2.

**Table 2: Summary of Regression Analysis of secondary school leavers' exposure to livestock management contentand job performance**

SUMMARY OUTPUT

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.8659 |
| R Square | 0.7498 |
| Adjusted R Square | 0.7462 |
| Standard Error | 80.7843 |
| Observations | 532 |

ANOVA

| | df | SS | MS | F |
|---|---|---|---|---|
| Regression | 1 | 5399129.163 | 5399129.163 | 827.3109 |
| Residual | 531 | 1801208.837 | 6526.1189 | |
| Total | 532 | 7200338 | | |

Significance at *alpha*< .05;                      degrees of freedom = 95

Source: Researcher's computation from field survey (2022)

The result in Table 2 reveals that at 95 degrees of freedom, and alpha level of .05, the *F* – calculated, was found to be 827.311 against the *F* - critical of 3.92 at the same level of statistical significance. Since the *F*-calculated is greater than *F*-criticalthen, the null hypothesis that states that; the extent to which exposure to livestock management content predicts job performance of secondary school Leavers in Agro-based Firms in Akwa Ibom State is not significant was rejected and the alternate; accepted. This implies that, the extent to which exposure to livestock management content can predict job performance of secondary school Leavers in Agro-based Firms in Akwa Ibom State is very significant. The result also showed, an $r^2$-value of .7498 which further collaborates the fact that, 74.98 percent of secondary school Leavers job performance in Agro-based Firms in Akwa Ibom State is attributed to their exposure to livestock management content. Furthermore, the table also shows a *P* – value (0.000) was <*P* – critical of .005 at the same statistical significance, which further lends credence to the acceptance of the alternate hypothesis.

**Hypothesis 3**

The extent to which exposure to feed formulation content predicts job performance of secondary school leavers in Agro-based Industry in Akwa Ibom State is not significant.

Simple regression analysis was used to test this hypothesis. The result of the analysis was presented in Table 3.

**Table 3: Summary of Regression Analysis of secondary school leavers' exposure to feed formulation content and job performance**

SUMMARY OUTPUT

| Regression Statistics | |
|---|---|
| Multiple R | 0.860334465 |
| R Square | 0.740175391 |
| Adjusted R Square | 0.737465364 |
| Standard Error | 109.256744 |
| Observations | 532 |

ANOVA

| | df | SS | MS | F |
|---|---|---|---|---|
| Regression | 1 | 12548078.7 | 12548079 | 1051.189 |
| Residual | 531 | 4404766.33 | 11937.036 | |
| Total | 532 | 16952845 | | |

Significance at *alpha*< .05;                           degrees of freedom = 531

Source: Researcher's computation from field survey (2022)

The result in Table 3 reveals that at 95 degrees of freedom, and alpha level of .05, the $F$ – calculated, was found to be 1051.189 against the $F$ - critical of 3.92 at the same level of statistical significance. Since the $F$-calculated $>F$-criticalthen, the null hypothesis that states that; The extent to which exposure to feed formulation content predicts job performance of secondary school leavers in Agro-based Firms in Akwa Ibom State is not significantwas rejected and the alternate; accepted. This shows that, the extent to which exposure to feed formulation content predicts job performance of secondary school leavers in Agro-based Firms in Akwa Ibom State is very significant. The result also showed an $r^2$ - value of .7374 which further collaborate the fact that 73.74 percent of job performance of secondary school leavers in Agro-based Firms in Akwa Ibom State can be attributed to the exposure to necessary content in feed formulation. From the table also, $P$ – value (0.000) was $<P$ – critical of .005 at the same statistical significance, further lends credence to the acceptance of the alternate hypothesis.

**Hypothesis 4**

The extent to which exposure to content of marketing predicts job performance of secondary school leavers in Agro-based Industry in Akwa Ibom State is not significant.

Simple regression analysis was used to test this hypothesis. The result of the analysis was presented in Table 4.

**Table 4: Summary of Regression Analysis of secondary school leavers' exposure to marketing content and job performance**

SUMMARY OUTPUT

| Regression Statistics | |
|---|---|
| Multiple R | 0.8667 |
| R Square | 0.7511 |
| Adjusted R Square | 0.7438 |
| Standard Error | 40.5475 |

| | df | SS | MS | F |
|---|---|---|---|---|
| Observations | 532 | | | |
| ANOVA | | | | |
| Regression | 1 | 679647.3777 | 679647.378 | 413.386 |
| Residual | 531 | 225241.6223 | 1644.09943 | |
| Total | 532 | 904889 | | |

Significance at *alpha*< .05;                    degrees of freedom = 531

Source: Researcher's computation from field survey (2022)

The result in Table 4 shows that at 95 degrees of freedom, and alpha level of .05, the *F* - calculated was found to be 413.386 against the *F* - critical of 3.92, at the same level of statistical significance. Since the *F*-calculated is greater than *F*-critical, the null hypothesis that states that; the extent to which exposure to marketing content predicts job performance of secondary school leavers in Agro-based Firms in Akwa Ibom State is not significant, was then rejected. This implied that, the extent to which exposure to marketing content predicts job performance of secondary school leavers in Agro-based Firms in Akwa Ibom State is very significant. The result also showed an $r^2$-value of .7511 which further collaborate the fact that, 75.11 percent of good job performance in Agro-based Firms secondary school leavers within Akwa Ibom State, can be attributed to the exposure to relevant marketing content of Agro-allied products. From the table also, *P* – value (0.000) was <*P* – critical of .005 at the same statistical significance, further lends credence to the acceptance of the alternate hypothesis.

**Discussion of the Findings**

**Exposure to Crop cultivation content and Job Performance of Secondary School Leavers**

The result showed that exposure to crop cultivation content significantly predict Job Performance of secondary School Leavers. The result implies that Exposure to Crop cultivation content significantly Predict Job Performance of Secondary School leavers. This could be limited to the fact that exposure to crop cultivation contents improved secondary school leavers fails which in-turned influence their job performance in Agro-based industry. The findings agrees with the findings of Alawa and Okeke (2018) in a study of work content required by secondary school leavers for entry into cocoyam production enterprise in Cross River State, Nigeria. The study established a significant influence of skill acquisition on job performance. It was found that secondary school graduate require work skill training in planting, pre-planting and planting, post planting and post harvesting and marketing operation to successfully enter into cocoyam production enterprise. The findings also agrees with the findings of Adebisi *et al.,* (2016) which examined the effect of food practicals on students' skill acquisition in selected tertiary institution in Ogun State. The study revealed that there was significant difference in performance of respondents from middle, low and high socio-economic backgrounds. The findings also agrees with the findings of Ogungbade*et al.,* (2014) in a study where significant difference was established in working content required by secondary school leavers for entry into groundnut production enterprise in Kaduna State. Olabiyi (2014) established that Agricultural training is a stimulating factors in making education real and meaningful to the students as students acquire specific content relevant to their occupations.

**Exposure to Livestock Management Content and Job Performance of Secondary School Leavers**

The result showed that Exposure to livestock management content predicts significantly job performance of secondary school leavers. The result implies that exposure to Livestock management content significantly influence the job performance of secondary school leavers. This could be

attributed to the courage and depth of livestock management content exposed to the students while in school, which eventually affected their job performance. This findings agrees with the findings of Habtamu (2019) in a study on farmers' education where the study indicated that higher education contributes to high productivity. Thus, formal schooling opens the mind of farmers in adoption of new farm technology. Therefore to increase farmer's productivity, the farmers should acquire content and knowledge in modern farming. Also, Al-riwawi*et al.,* (2016) investigated farmers attitude and content of farm management. The result shows that poor exposure to livestock management content limits the operator's ability in making informed decisions, planning and analyzing the financial performance of their operations. Also, Adetoro (2009) identifies Agricultural Training as necessary for proper job preparation in livestock enterprise. For productivity to be enhanced by students or new entrants into the livestock enterprise, there is really the need for early exposure of students to the value and content of the livestock industry.

**Exposure to Feed Formulation content and Job Performance of Secondary School Leavers**

The result showed that exposure to Feed Formulation content significantly predicts Job Performance of Secondary School leavers. This findings is in line with the findings of Oladoja and Olusaya (2009) who examined the impact of private feed formulation and production as a tool for poverty alleviation among poultry farmers in Ogun State, Nigeria where feed quality and feed production ability ranked first among impacts recorded. It was also established that research institutes in collaboration with extension agencies should conduct training and workshops for poultry farmers to build and increase their capacities, knowledge and content to actively participate in private feed formulation. Also, Onebune (2016) established that feed formulation requires in-depth knowledge of animal nutrition, particularly the nutrient requirements and the nutrient composition of the ingredients. Ode *et al.,* (2012) asserted that feed formulation skill train students to convert raw food material and other from produce into edible, usable and palatable form, help to store perishable and semi-perishable agricultural commodities, avoid excess in the market, check post-harvest losses and make the produce available during off-season, and generate employment. It can be deducted from the findings that if students earn a skill in feed formulation while in secondary school, it will aid their job task.

**Exposure to Marketing content and Job Performance of Secondary School Leavers**

The result showed that exposure to marketing content significantly predicts Job Performance of the secondary school leavers. The result implies that the students level of exposure to marketing content at secondary school level in-turn affects their job task in related area. This findings supports the findings of Nwaigburu and Eneogwe (2013) who where a significant relationship was established between Job performance and marketing content by secondary school graduates. The reason for the similarity of findings to because both studies sought to investigate if there was a link between job performance and marketing content. But the findings of Wanjru *et al.,* (2018) was in contrary to the findings of this present study which examined the effects of marketing content on performance of youth environment projects in Nairobi, country where there was no significant influence of marketing content on youth environmental projects. Also, Spais (2013) established that educators in marketing must process models and tools that can evaluate the performance of each educational method introduced into the learning process.

**Conclusion**

In conclusion, exposure of secondary school leavers' to Agricultural Science content can predict to a high extent job performance in Agro-based Industry in Akwa Ibom State. Based on the findings of the study, it has been concluded that Job performance of secondary school leavers can be improved by making Agricultural Science a core subject to all senior secondary school students and inclusion of these Agricultural content (Livestock management content, crop cultivation content, marketing content, feed formulation content) in Agricultural Science curriculum.

## Recommendations

Based on the findings of the study, the following recommendations are made:

i. Curriculum planners should include more Entrepreneurship content in Agricultural Science curriculum to promote students' interest.
ii. Agricultural Science should be made a core subject in senior secondary schools level
iii. The students should be allowed to choose an aspect of Agricultural Science they want to major from JSS1 and continue with it until SS3
iv. All schools should have school farms of both plants and animals
v. Government should provide farm implements to schools in Nigeria.
vi. Youths should be skill-driven rather than job-driven because the exposure to Agricultural Skills will help to generate jobs and exploit opportunities to create jobs for others.
vii. Government should establish vocational centre for secondary school leavers who might not further their education.
viii. Content in Agricultural Science should be integrated into the skill training programmes of the State.

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