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Impact of School Farm on Entrepreneurial Skills Development of Agricultural Science Students in Public Secondary Schools in Rivers State

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Abstract

The study examined the impact of school farm on entrepreneurial skills development of agricultural science students in public secondary schools in Rivers State. Three objectives guided the study. The study used descriptive survey research design, the area of the study was Rivers State. The population of the study consisted of all public senior secondary schools in Rivers State. Multistage sampling technique was used to select 6 Local Government Area out of the 23 Local Government Areas in Rivers State., and simple random sampling was used to select 298 respondents which comprised 262 students and 36 teachers of agriculture were drawn as sampled respondents from 18 senior secondary schools in six local government areas of the state. The instrument used for data collection was structured research questionnaire titled Impact of School Farm on Entrepreneurial Skills Development of Agricultural Science Students in Public Secondary Schools Questionnaire (ISFESDASSPSSQ), the instrument was subjected to content validation by two experts from the Department of Vocational and Technology Education, Rivers State University. Test -retest reliability method was used to test the reliability of the instrument, using Pearson's Product Moment Correction Coefficient and it gave a value of 0.88. Data collected were analyzed descriptively using mean (x) and standard deviation (SD) to answer the research questions, with a criterion mean of 2.50 as the cut-off point for acceptance while below 2.50 was rejected. The study found out that agricultural science students acquired entrepreneurial skills in poultry production, snail production, and goat production. It was recommended that Government should ensure that all secondary schools in the state have functional School farm where both animal production and crop production should be practiced. Also the facilities needed on the school farm should be provided to ensure proper inculcation of the needed agricultural entrepreneurial skills to the students.

Keywords: School farm, Development, Agricultural entrepreneurial skills, Public secondary school students.

Introduction

Agriculture is the oldest industry known to mankind. It is the basic source of food and raw materials for many industries. In fact, it can be justifiably referred to as the world primary industry (Ukpe, 2008). Agriculture plays an important role in the development of many developing nations; hence there is the need to focus on sustainability and increased agricultural productivity (Akinsorotan, 2007, Obi, 2005 and Njoku, 2005). It remains the basic source of livelihood for more than half of the world's population. In some countries, more than four-fifths of the inhabitants support themselves by farming, while in most industrialized countries the proportion ranges much lower to less than 3 percent especially the United States of America and Great Britain (Johnson et al. 2013). In Nigeria, agriculture is a major sector of the economy which provide entrepreneurial skills that enhance employment either directly or indirectly to about 70% of the population. The sector is being transformed by commercialization at the small, medium and large scale enterprise level (Ade, 2007).

The students who are the life-wire of every society in the future are encouraged into farming through practical or demonstrations that take place during their secondary school period in the school farms, as well as the organization of Young Farmers Club (YFC) which encourage them to have their farms or gardens. They receive practical skills on the school farm which assist them in analyzing innovations towards agricultural entrepreneurial skills development. According to Egbule in Baridoma and Nlebem (2019), practical work (skill) should form the basis for training students in agriculture schools. Thus schools presenting candidates for agriculture examinations must keep both livestock and crop farms. But where this is not possible, at least a well-planned garden with small plots of farm crops should be maintained or at least two species of livestock from each of the following groups; pigs, poultry, rabbit, cattle, goat and sheep. Keeping of both ruminant and non-ruminant animals in the school farm is very important to ensure students acquire the general skills in rearing them. According to them the current emphasis on agriculture makes it mandatory that schools and colleges should keep farms, for that is the only best way agricultural entrepreneurial skills can be transferred to the students by the teachers.

A school farm in this context is a piece of land located within or around the school where crops and animals are cultivated and reared which is use for the success of agricultural science programme. Essentially, school farms are geared towards helping the students acquire necessary entrepreneurial skills in

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agriculture and ensuring that classroom theories are backed up by facts and practice. Therefore, the school farm can be regarded as an educational facility (Egbule in Baridma and Nlebem, 2019). In Nigeria, the agriculture science teachers are responsible for the day-to-day directing and execution of the work in his/her school farm. Often, the services of farm hands or attendants are needed. The school farm programme should be planned and implemented in such a manner that practical activities should follow the theoretical instruction in the classroom such that, the students are made to participate in their school farming activities as a joyful task. From the farm activities and projects they can devise a genuine sense of the dignity of labour and valuable skills through the do-it-yourself activities which will enhance entrepreneurial skills development in agriculture.

The school farm is of vital importance to any school or college with agricultural programmes. The primary purpose is to translate theory in the classroom into practical. Osinem (2004), observed that a well-organized school farm can serve the following purposes.

- > To provide students with opportunity of acquiring knowledge, skills and needed competencies in agriculture.
- To provide an opportunities for students to practice what they have learnt in the class.
- > To provide opportunities to demonstrate farm practices and conduct farm experiment for students.
- > To encourage group efforts and competition among students and schools in agricultural production practices and programmes.
- > To stimulate students' interest in agricultural as well as mobilize them for effective agricultural production through willful participation.
- > To enable the juvenile farmers embrace modern farming early in their lives and grow up with it.
- > To provide opportunities for carrying out some farming and cropping systems.
- > To provide opportunities for individuals and group projects located on school farms.
- > To generate funds for students and also to the school.

Osinem (2004), went further to say that school farms activities are practical training skills. This is because they enable students to have the knowledge of how to perform successfully in the field of agriculture. Such activities include:

- Land preparation using the appropriate tools.
- Planning of needs and transplanting of seedlings.
- Application of agrochemicals and fertilizer to crops using different methods.
- Implementation of organic farming to ensure production of crops that are synthetic chemical free.
- Weed control in crop plots by using mulching technique.
- Feeding of livestock and collecting of eggs and other livestock products.
- Record keeping in crop and animal production.

For the above points to be achieved there is the need for every agriculture teacher to be effective, liberally educated, current in subject matter and its pedagogy, aware of what is expected of teachers and schools, skilful and conscious in planning, preparing for carrying out instruction, respectful towards students and show concern about their welfare, as well as be actively involved in faculty, professional and community affairs (Baridoma & Nlebem, (2019). Note before the chicks arrive: the following should be done. All used equipment should be moved out of the house thoroughly washed with detergent and disinfect. Older liter material and manure should be removed from inside and around the house. Floors and walls of the house should be washed with detergent and all surface should be disinfected with suitable disinfectants such as Dettol, izal, discole and morigad. The house should be sealed, all doors and windows should be open for 10 - 14 days before putting new birds into the house. A dip should be constructed in front of the house and disinfectant should always be placed into the dip for disinfection. Mold – free litter materials (sawdust, wood shavings, and rice hulls) should be spread evenly on the floor to a height of 5 - 7cm at least 2 days before the chicks arrive. The brooder heat source should be placed into the house appropriately, the brooder heat source should then be surrounded by brooder guard.

As chicks arrive, the following should be done immediately. The chick boxes used for transporting the birds should be unloaded quickly. The chicks should be carefully counted into the house near the heat source. Very weak birds, crippled should be discarded because they may not survive. The number of good bird should be recorded immediately, feeding trays and drinkers should be placed at a regular interval, chicks boxes should be removed and burnt. Feeds should be supplied to the birds after 2 – 3hrs of being in the pen i.e after the birds have learnt to drink. The birds should be watched for the first few hours to ensure that they are drinking and eating and the temperature is right for them. Daily observation of feed and water consumption, stock appearance, noise patterns and mortality should be made. Cases of disease outbreak and deviations from normal should be reported immediately to the relevant personnel. Entry of visitors into the house should be minimized, entry into any poultry house should be gradual. Force entry into the house may scare birds resulting to losses due to pilling in corners. Tap slightly on the door before entering a poultry house. Adequate records of mortality, feed consumption, vaccinations etc. must be kept. By keeping adequate records troubles can easily be spotted. Dead birds should be disposed of properly, burning and or deep burying are suitable means of disposal. Lighting should be provided to allow night feeding.

Snail farming business also known as Heliculture or snail farming is the process of raising edible land snails, primarily for human consumption or cosmetic use. The meat and eggs can be consumed. Snail rearing can either be reared as subsistence or commercial snail farming business. Snail farming for beginners is very easy as snail farming does not require much knowledge and a little capital (money) is needed. The Archachatina Margnata (AM) species for short are herbivores; they feed majorly on plant. Snails may become cannibals if left unfed for some days and they can start to eat one another. Snail diet ranges from carbohydrates, protein, vitamins and even water.

General Management Routine, Procedures for Snails Production

- 1. Discourage visitors from entering the snailery too frequently.
- 2. Do a proper inspection of materials carried to snailery such that they are safe.
- 3. Do not use chemicals ie. insecticide or herbicides inside the snailery
- 4. Adequate shade must be provided
- 5. Snail must be handled carefully
- Fresh poultry dropping should not be added. Moldy, stale or fermented feed should not be given to snails because it contains uric acid which is harmful to snails
- 7. The hatching or young ones required humid environment and more attention than the matured ones
- 8. The inside and outside of the snailery should be cleaned regularly
- 9. Food and water should be served in shallow container for easy accessibility and also to avoid snail drowning
- 10. The food must be served in shallow containers preferably that trans for easy accessibility
- 11. Snail should be well protected against soldier ants, millipedes, snakes and rodents etc

Snails Pen Construction: Cobbinah (2010) asserted that snail pan construction requires getting a good site as very crucial. He went further to say that for economic purpose extensive system of snail farming is the best. Owolabi (2010) is of the opinion that snail does well in cool environment deviled of soilder ants and other harmful reptiles. The temperature of the site should be between 20-35C, planted with tress around the pens. For the snails to do well according to Murphy (2011) the site should have low wind movement and fresh air circulation. The soil should be free from toxic fertilizers and moderate sun light around the pens, this is so because snail is a boneless animal and moves very slowly. Good fencing for security, reinforced with chicken wire; to prevent intruders both humans and animals and also the snails from escaping.

The school farm plays a vital role for students who do not come from an agricultural background (Binkley and Tulloch, 2007). Williams and McCarthy (2005) emphasize the school farm's ability to serve diverse groups of students. Moreover, students who do have an agricultural background can gain further, more in-depth, knowledge about agricultural production. The school farm provides a wide variety of experiences that a single farm cannot (Binkley and Tulloch, 2007). Factors such as theses have led to renewed interest in school farms and land laboratories so that students can 'learn by doing'". The school farm is designed to increase active learning, because principles taught in the classroom are applied on the school farm for practical experience. Previous research states, "students were motivated by the empowerment they experience when practical learning directly aligned with, and in some instances were extensions of their values, ideals, and deeper sense of purpose and when teachers utilized the school farm for activities (Parr and Trexler, 2011). The driving force for school farms is to encourage students to participate in an SAE project as well as provide the necessary information on how to handle farm facilities (Binkley & Tulloch, 2007).

There is a growing need for on-site school facilities for Supervised Agricultural Experiences (SAE) projects. The traditional agricultural science classroom is changing due to the increasing suburban students and the need for practical application has grown. Due to changing curricula and diverse student populations, school-site lab facilities are essential (Talbert *et al.*, 2007). Furthermore, School farms in an urban setting are utilized more frequently than in rural communities (Shoulders and Myers, 2012) due to the increasing need of real-life application for non-traditional students (Talbert *et al.*, 2007). William and McCarthy (2005) support the use of school farms to overcome the changing agricultural classroom; the school farm offers something for all students, regardless of culture. Today's students' agricultural experiences are typically obsolete; therefore, SAE projects and classroom instruction with a laboratory component are essential for student engagement and success within an agricultural science program (Talbert *et al.*, 2007).

School farm facilities can differ depending upon their geographical location and from school to school (Shoulders & Myers, 2012; Williams & McCarthy, 2005). Agricultural teachers in some schools have a large variety of facilities (Shoulders & Myers, 2012) where as others have facilities that are more focused on production agriculture (Dunlap, 2006). More than fifty percent of agricultural science teachers have access to small animal/veterinary laboratories, greenhouses, shop facilities, livestock/equine facilities, nursery orchard/grove, biotechnology/science laboratory, meats laboratory, garden, aquaculture tank/pond, turf grass management area, or food science laboratory (Shoulders & Myers, 2012). The most frequently utilized facilities include shop facility, greenhouse, livestock/equine facility, garden, small animal/veterinary laboratory, landscape area, forestry plot, field crops, biotechnology/science laboratory, and aquaculture tank/pond. Shoulders and Myers (2012) concluded that the utilization of the school farms was based upon the teachers' perceptions of the school farm facilities.

Development of skills in agriculture is a key to productive, and self-reliant. Skills are vital to the economic and entrepreneurial development of any nation. This is because such skills are needed for enterprise productivity and profitability as well as individual prosperity. Skills to perform a specific task in agriculture must be taught for successful entrepreneurial development. Agricultural education skills are one of the most important and economically rewarding dexterity as entrepreneurial skill is regarded as developing a business enterprise, school farm provides a rigid platform where entrepreneurship skills are being displayed and developed.

Entrepreneurial skill means different things to different people and with varying conceptual perspectives. For example, in some contexts it is used to imply the centrality of economic profit in business, and distinct from such business activity in which profit is seen as subordinate to other goals (Carland, Hoy and Boulton in Christine, 2008). In this sense, entrepreneurial skill is associated primarily with the aim of profit maximization and optimizing economic efficiency or competiveness in business, whereas running a business with the sole aim of securing a satisfactory standard of living for the family would not fulfill the criteria of entrepreneurship. In some other contexts, running a firm as such would be considered as entrepreneurial skill, regardless of the centrality of the economic aims.

According to Amesi (2015) entrepreneurial skill creates self-reliance, self-employment and managerial ability for business enterprise. It is all about stimulating and promoting economy, the willingness and ability of an individual to seek out investment opportunities, establish and run an enterprise successfully. Also entrepreneurship is the ability to set-up a business enterprise as different from being employed. This ability should be acquired and should differ in some respects from the abilities required to enable a person to obtain employment. Entrepreneurial skill is all about new products, new production processes, new design and market competition and achievement to innovative results and creative market, due to the decision of making uncertainty in different situations by using resources leads. Based on the assertions above, it is obvious that entrepreneurial skill involves the development and utilization of skills for innovativeness, creativity and productivity so as to be economically self-reliant. Good entrepreneurs are risk takers and possess varying skills for successful business enterprise. According to Anyadike, Emeh and Ukah (2012) the need for entrepreneurial skill development in the country today is necessitated by the fact that it is a major factor in economic growth and development and also the permanent solution for extreme hunger and poverty necessitated by unemployment. Thus, the introduction of entrepreneurial skill programmes in the educational system has enhanced students' attributes and further develops awareness of entrepreneurial opportunities and skills to form entrepreneurial ventures (Reza and Tabereh, 2013). Therefore, functional school farm should be established in all public secondary schools to ensure required agricultural entrepreneurial skills are inculcated into the students.

Purpose of the Study

The main purpose of the study was to examine the impact of school farm on entrepreneurial skills development of agricultural science students in public secondary schools in Rivers State. Specifically, the study sought to:

- 1. Examine the entrepreneurial skills development in poultry production in public secondary school farms for agricultural science students in Rivers State.
- 2. Examine the entrepreneurial skills development in snail production in public secondary school farms for agricultural science students in Rivers State.
- 3. Examine the entrepreneurial skills development in goat production in public secondary school farms for agricultural science students in Rivers State.

Research Questions

The following research questions guided the study:

- 1. What are the entrepreneurial skills development in poultry production in public secondary school farms for agricultural science students in Rivers State?
- What are the entrepreneurial skills development in snail production in public secondary school farms for agricultural science students in Rivers State?
- 3. What are the entrepreneurial skills development in goat production in public secondary school farms for agricultural science students in Rivers State?

Methodology

The study adopted descriptive survey research design, the study was carried out in Rivers State, Nigeria. Rivers State is one of the 36 states of Nigeria. The population consist of all the public senior secondary school students and teachers of agriculture in Rivers State. Multistage sampling technique was adopted to selected six Local Government Areas from the 23 LGA in the State, and simple random technique was used to select 18 public senior secondary schools from the six Local Government Areas of Gokana, Omuma, Eleme, Ahoada East, Etche and Obio/Akpor in Rivers State. 298 respondents made up of 262 students and 36 teachers of agriculture was randomly selected from these 18 public senior secondary schools. The instrument used for data collection was structured questionnaire titled Impact of School Farm on Entrepreneurial Skills Development of Agricultural Science Students Questionnaire (ISFESDASSQ). The instrument was subjected to face and content validation by two experts from the department of Vocational and Technology Education, Rivers State University. Test-retest reliability method was used to test the reliability of the instrument using Pearson Product

Moment Correlation Coefficient and it gave a value of 0.85. The instrument was structured in a four points Likerts rating scale of agreement, Strongly Agreed, Agreed, Disagreed, and strongly disagreed with values of 4, 3, 2, and 1 respectively. The 298 copies of the instruments was distributed to the respondents and 298 was collected back, given a return rate of 100 percent. Data collected were analyzed descriptively using mean and standard deviation. Decision was made based on the criterion mean value of 2.50 and above as accepted and below 2.50 as rejected

Results and Discussions

1. Research Question 1: What are the entrepreneurial skills development in poultry production for agricultural science students in public secondary school farms in Rivers State?

Table 1: Respondents Mean Responses on Entrepreneurial Skills Development in Poultry Production for Agricultural Science Students in Public Secondary Schools.

S/N	Item	Teachers(N=36)			Students(N=262)				
		X SD Remark		rk	X SD	SD Remark			
1.	Skills in poultry pen construction	3.47	0.59	Agreed	3.65	0.61	Agreed		
2.	Skills in ventilation of the poultry pen	3.28	0.63	Agreed	3.00	0.66	Agreed		
3.	Skills in selection of poultry drinkers and feeders	3.39	0.65	Agreed	3.48	0.58	Agreed		
4.	Skills in receiving the day old birds	3.28	0.66	Agreed	3.27	0.55	Agreed		
5.	Skills in providing heat to the day old birds	3.45	0.58	Agreed	2.94	0.49	Agreed		
6.	Skills in knowing the type of feed to fed the birds at different ages	2.97	0.50	Agreed	3.58	0.60	Agreed		
7.	Skills in knowing the type of birds to keep	3.25	0.71	Agreed	3.55	0.75	Agreed		
8.	Skills in knowing different drug to administer to the birds	3.37	0.61	Agreed	3.25	0.64	Agreed		
9.	Skills in liter clearing	2.90	0.48	Agreed	3.00	0.66	Agreed		
10.	Skills in marketing poultry products.	3.15	0.53	Agreed	3.20	0.65	Agreed		
	Grand Mean & SD	3.20	0.62	Agreed	3.30	0.64	Agreed		

Source: Field Survey, 2022

Data in Table 1 showed entrepreneurial skills development in poultry production for agricultural science students in public secondary schools in Rivers State. All the items tested showed that the respondents agreed that all the items are agricultural entrepreneurial skills in poultry production for agricultural science students in public secondary schools for their mean values were above 2.50; , and also the grand standard deviation (SD) for the teachers and students were 0.64 and 0.62 respectively, showing homogeneity of the respondents. such as skills in poultry pen construction (3.47 & 3.65), skills in ventilating the poultry pen (3.78 & 3.00), skills in selecting good poultry drinkers and feeders (3.29 & 3.48), skills in receiving the day old birds (3.28 & 3.27), skills in providing heat to the day old birds (3.45 & 2.94), skills in knowing the type of feed to fed the birds at different ages (2.95 & 3.58), skills in knowing the type of birds to keep (3.25 & 3.55), skills in knowing different drugs to administer to the birds (3.67 & 3.85), skills in liter clearing (2.90 & 3.00) and skills in marketing poultry products, (3.15 & 3.90)

This study is in line with the works of Adams (2010) which sees school farm as an avenue for students to gain entrepreneurial skills in poultry production such as poultry pen construction, selection of poultry drinkers and feeders, receiving the day old birds, providing heat to the day old birds among others.

Research Question 2: What are the entrepreneurial skill development in snail production for agricultural science students in public secondary school farms in Rivers State?

Table 2: Respondents Mean Responses on Entrepreneurial Skills Development on Snail Production for Agricultural Science Students in Public Secondary Schools:

S/N	Item	Teachers(N=36)			Students(N=262)			
		X	X S/D Remark			S/D Remark		
1	Skill in snail pen construction	3.26	0.66	Agreed	3.00	0.67	Agreed	
2	Skill to provide good ventilation for the snails	3.23	0.71	Agreed	3.14	0.56	Agreed	
3	Skill in selecting flat trays to feed the snail and provide water	3.53	0.76	Agreed	3.35	0.73	Agreed	
4	Skill in selecting and receiving snail for foundation stock	3.24	0.60	Agreed	3.42	0.57	Agreed	
5	Skill in providing humid environment for snail	3.12	0.69	Agreed	3.00	0.67	Agreed	
6	Skill in feed selection for the snail	3.27	0.60	Agreed	3.30	0.65	Agreed	

7	Skill in caring for the newly hatched snail	3.37	0.65	Agreed	3.43	0.57	Agreed
8	Skill in protecting snail from enemies or	3.25	0.71	Agreed	3.18	0.60	Agreed
	predators						
9	Skill in keeping the environment clean	3.26	0.54	Agreed	3.14	0.59	Agreed
10	Skill in marketing snail.	2.63	0.61	Agreed	3.28	0.63	Agreed
	Grand Mean & SD	3.50	0.63	Agreed	3.45	0.61	Agreed

Source: Field Survey, 2022

Data in Table 2 showed entrepreneurial skills development on snail production for agricultural science students in public secondary schools in Rivers State. All the items tested showed that the respondents agreed that all the items are agricultural entrepreneurial skills on snail production for agricultural science students in public secondary schools in Rivers State, and also the grand standard deviation (SD) for the teachers and students were 0.64 and 0.62 respectively, showing homogeneity of the respondents. for their mean values are above 2.50; such as skills in pen construction (3.26 & 3.00), Skills in ventilation of the snail pen (3.23 & 3.14), skills in selection of flat trays for feeding and providing water for snail (3.53 & 3.35), skills in receiving the foundation stock, (3.24 & 3.42), skills in providing humid environment for the snail (3.12 & 3.00), skills in feed selection for the snail (3.27 & 3.30), skills in caring for the newly hatched snail (3.37 & 3.43), skills in protecting the snail from enemies/predators (3.25 & 3.18), skills in keeping the environment clean (3.26 & 3.14) and skills in marketing (2.63 & 3.28)

The findings of this study is in agreement with the work of Olaitan and Mama (2011), they noted that entrepreneurial skills such as snail pen construction, providing good ventilation for the snail pen, selecting of flat trays for feeding and providing water for the snail, receiving the foundation stock among others were some of the skills that a well establish public secondary school farm will provide for the students.

Research Question 3: What are the entrepreneurial skills development in goat production for agricultural science students in public secondary school farms in Rivers State?

Table 3: Respondents Mean Responses on Entrepreneurial Skills Development on Goat Production for Agricultural Science Students in Public Secondary Schools:

S/N	Item	Teachers(N=36)			Students(Students(N=262)		
		X S/D Remark			X S/D Remark			
1.	Skill in selecting foundation stock	3.34	0.76	Agreed	3.42	0.67	Agreed	
2.	Skill in goat farm stall house construction	3.66	0.61	Agreed	3.65	0.61	Agreed	
3.	Skill in managing available grazing land	3.32	0.72	Agreed	3.28	0.63	Agreed	
4.	Skill in planting nutritive grasses	3.48	0.58	Agreed	3.17	0.61	Agreed	
5.	Skill in administering drugs to the goats	3.25	0.61	Agreed	3.38	0.66	Agreed	
6.	Skill in supplementing grasses with human remnant food	3.00	0.66	Agreed	3.33	0.72	Agreed	
7.	Skill in caring for the pregnant goats and kids	3.36	0.62	Agreed	2.98	0.50	Agreed	
8.	Skill in castrating male goats	3.03	0.67	Agreed	3.69	0.62	Agreed	
9.	Skill in separating young female goats from the male	3.47	0.65	Agreed	3.00	0.66	Agreed	
10.	Skill in marketing goat.	3.44	0.57	Agreed	3.65	0.61	Agreed	
	Grand Mean	3.31	0.64	Agreed	3.41	0.62	Agreed	

Source: Field Survey, 2022

Data in Table 3 showed entrepreneurial skills development on goat production for agricultural science students in public secondary schools in Rivers State. All the items tested showed that the respondents agreed that they are agricultural entrepreneurial skills on goat production for agricultural science students in public secondary schools for their mean values were all above 2.50; for both the teachers and the students, and also the grand standard deviation (SD) for the teachers and students were 0.64 and 0.62 respectively, showing homogeneity of the respondents. The items tested were skills in selecting foundation stock (3.26 & 3.00), skill in goat farm stall house construction (3.66 & 3.65), skills in managing available grazing land (3.32 & 3.28), skills in planting nutritive grasses for the goats (3.48 & 3.17), skills in administering drugs to the goats (3.25 & 3.38) skill in supplementing grasses with other human food remnant (3.00 & 3.33), skills in caring for the pregnant goats and the kids (3.36 & 32.98), skills in selecting and castrating male goats (3.03 & 3.69), skills in separating the young female goats from coming in contact with the male (3.47 & 3.00), and skills in marketing goats (3.44 & 3.65).

This finding of this study is in agreement with the work of Reza and Tabereh, (2013) which stated that skills in selecting foundation stock of goats, construction of goat farm stall, planting nutritive grasses for the goats, administering drugs to the goat were some of the entrepreneurial skills agricultural science secondary school students should acquire in goat production from functional school farm in all public secondary schools in Nigeria

Conclusion

From the study it was discovered that there are entrepreneurial skills development on poultry production, snail production and goat production for agricultural science students in public secondary schools in Rivers State., Agricultural entrepreneurial skills can be acquired through the use of school farm. This means that school farm played a vital role and serves as an environment where agricultural entrepreneurial skills can be properly acquired by the students.

Recommendations

Based on the findings, the following were recommended.

- Government should ensure that all secondary schools in the state have functional School farm where both farm animals and crops can be practiced.
- Government should provide functional farm facilities such as poultry houses, snail pen, rat cloches, and goat stall construction good arable land for crop production among others.
- 3. School authorities should ensure that all students offering agricultural science should participate in the school farm practical activities.

REFERENCES

Ade, A. I. (2007). Curriculum Factors Affecting the Employment Opportunities for Development: Issues on National Development 2(1), 12-20.

Akinsorotan, J. F. (2007). The Challenge of Establishing a School Farm. Agricultural Education Magazine, 52(7).

Baridoma, M. P. & Nlebem, B. S. (2019) Towards Developing a Blueprint for Effective Vocational Agricultural Education Delivery in Nigeria Secondary Schools. International Journal of Agriculture & Biology Research 7(3): 41-48.

Binkley, H. R., & Tulloch, R. W. (2007). Teaching Vocational Agriculture/Agribusiness. Danville, IL: The Interstate Printers.

Dunlap, J. E. (2006). Agricultural Education Research Using Conceptual and Theoretical Framework. Florida: University of Florida.

Ezeimo, B. I. (2015). Principal and Skills Relevant to Effective Utilization of School farm by Agricultural Science Teachers for Teaching in Secondary Schools in Cross River State. *Unpublished M.Ed Project Submitted to the* Department Vocational Education. University of Nigeria, Nsukka.

Francisca, O. (2003). Basic Principles of Student Teaching. Teacher Education, University of Nigeria, Nsukka.

Johnson, D. M., Wardlow, G. W., & Franklin, T. D. (2013). Hands-on activities versusworksheets in reinforcing physical science principles: Effects on students' achievement and attitude. *Journal of Agricultural Education*, 8(3), 9-17.

Njoku, C. E. (2005). Designing Appropriate and Technical Education for Nigeria. Nsukka: Fulladu Publisher Company.

Obi, C. A. (2005). Elements of Business. Owerri: Cape Publishers.

Olaitan, S. O. and Mama, R. O. (2011). Principles and Practice of School Farm Management. Owerri: Cape publishers Intl Ltd.

Osinem, E. C. (2004). Management of School Farm for Profit. *Unpublished Lecture Mimeograph*, Department of Vocational Teacher education, University of Nigeria, Nsukka.

Parr, D. M., &Trexler, C. J. (2011). Students' Experiential Learning and Use of Student Farms in Sustainable Agriculture Education. *Journal of Natural Resources & Life Science Education*, 40(1), 172-180.

Phipps, L. J., Osborne, E. W., Dyer, J. E., & Ball, A. (2008). *Handbook on Agricultural Education in Public Schools*. (6th ed.). Clifton Park, NY: Delmar, Cengage Learning Publishing Co. October 5.

Shoulders, C. W., & Myers, B. E. (2012). Teachers' Use of Agricultural Laboratories in Secondary Agricultural Education. *Journal of Agricultural Education*, 53(2), 124-138.

Tablert, B. A., Vaughn, R., Croom, D. B., & Lee, J. S. (2007). Foundations of Agricultural Education. (2nd ed.). Danville, IL: Professional Educators Publications. Inc.

Ukpe, O (2008), Agricultural Education: The School Farm "A Practical Facility". Ohio: Igohead Press.

Williams, A. and McCarthy, S. O. (2005). Junior Secondary Agriculture for Nigerian Schools. Lagos: West African Book Publishers Limited.

Amesi, J. (2015). Theory and Practice of Entrepreneurship: A Guide for Scholars. Divine Stone Publications Lagos State Nigeria. ISBN: 978-978-086-024-0

Anyadike, N., Emeh, L.E.J. and Ukah, F.O. (2012). Entrepreneurship Development and Employment Generation in Nigeria: Problems and Prospects. *Universal Journal of Education and General Studies*, 1(4), 88 – 102.

Reza, M. and Tahereh, C. (2013). Identifying Entrepreneurship Abilities in Agricultural Extension and Education Specialized Credits. *International Journal of Agriculture and Crop Science*. 5(23), 2845-2851.

Johnson, D. M., Wardlow, G. W., & Franklin, T. D. (2013). Hands-on Activities sversus Worksheets in Reinforcing Physical Science Principles: Effects on Students' Achievement and Attitude. *Journal of Agricultural Education*, 8(3), 9-17.