



Agricultural Science Teachers Proficiency in Entrepreneurship Development

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ABSTRACT

This study was carried out to determine Agricultural Science Teachers' proficiency in entrepreneurship development of Senior Secondary School Students in Gombe State, Nigeria. Survey research design was adopted for the study. The target population of this study was made up 700 urban Agricultural Science teachers and 500 rural Agricultural Science teachers all from Senior Secondary Schools in Gombe State, Nigeria, making a population size of 1200 urban and rural Agricultural Science teachers. Purposive stratified random sampling techniques was used to obtained 1000 respondents made up of 500 rural Agricultural Science teachers and 500 urban Agricultural Science teachers as well. The instrument for collecting data was structured questionnaire which was developed by the researchers for the study. The questionnaire was made up of 32 items which were arranged in accordance with the research questions. The instrument was subjected to content and face validity by three experts. Data collected were analyzed using mean and standard deviation for research questions 1-6, decision rule of 2.50 was used. The findings revealed that Agricultural Science teachers are not proficient in developing innovation, entrepreneurial creativity, new venture creation as well as identification of investment opportunity in agriculture, but they are proficient in determination of capital requirement in Agriculture and also aware of agribusiness ownership in Agriculture.

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INTRODUCTION

The importance of entrepreneurship in creating value and economic development of any nation cannot be overemphasized especially in developing nation like Nigeria. In order to harness the importance of entrepreneurship development from the growth and development of a given

economy, there is need for inculcating entrepreneurial attitude in to the mind of younger ones, this is because entrepreneurial activities among youth have been found to be capable of making positive impacts on the economy of a nation and the quality of life of the people (Adejumo, 2000).



Similarly, integrating entrepreneurship education into agricultural education programmes has been supported by various scholars, more recently, Federal Government of Nigeria (FGN) introduced the concept of entrepreneurship education into the curriculum of various educational institutions, designed to strengthen technical and vocational skills with the specific intent to prepare students to be self-reliant. In view of this, Agricultural science teachers in our primary and secondary schools are targeted in preparing students for career in agriculture and agribusiness, which can be achieved through entrepreneurship development in agricultural science. Also studies have established positive impact of entrepreneurship development in stimulating economic growth; employment generation and empowerment of the disadvantaged segment of the population, which include women and the poor (Oluremi & Gbenga, 2011).

Entrepreneurship development has become necessary in all sectors of our educational system in order to prepare youths and provide them with adequate information about the world of business and opportunities to create their own businesses. It provides youths with insights into entrepreneurship and enterprise; it aims to help them realistically consider the options of starting a small business or of self-employment (Mark & Gregory 2002). Entrepreneurship development also ensures the development of new skills and experiences that can be applied to other challenges in life. It promotes innovation and resilience in youth, revitalization of the rural communities by providing valuable goods and services, as well as provision of new economic opportunities and trends (Mark & Gregory 2002).

In view of the above, Agricultural Science teachers are expected to be

proficient in their tasks of inculcating the aspect of entrepreneurship development into the mind of our youth especially at Senior Secondary School level, so as to achieve the overall objectives of creating employment opportunities, self-realization, as well as, bringing alienated and marginalized youths back into the economic mainstream, by giving them a sense of meaning and belonging. Agricultural Science teachers are also expected to help youths in addressing some of their socio-psychological problems and delinquency that arise from joblessness (Adejumo, 2000).

Agricultural Education plays a strong role in forming the burgeoning entrepreneur. As education today makes the whole world to be seen as a global village, Agricultural Science teacher must be conversant with events around the world, especially in preparing and empowering the intending entrepreneur with the qualities required of him (Anyadike, Emeh & Ukah, 2012).

Unfortunately, the role of education in preparing young people to become change agents seems to have been ignored, the quality of education in the Nigerian institutions has gradually been on the decline, due to many factors including the quality and attitude of teachers themselves. Students are graduating from the system without the necessary skills to be on their own or self-reliant, entrepreneurial skills are not adequate to setup a new business.

It is believed that the Agricultural Science education system operated since the post-independent era, placed emphasis on academic excellence in terms of paper qualification rather than skill acquisition, which can prepare the individual for a more useful and fulfilling life within the society. Vocational skills acquisition, is believed to be more relevant to the development of the nation. Hence, a new National Policy on



Education was promulgated to introduce Vocational courses in the educational curriculum (Awogbenle & Iwuamadi, 2010).

Skills acquisition and employment generation have remained a focal point in the Nigerian Government policy. Successive administrations' initiatives to promote self-reliance in the generation of gainful self-employment have been profound. Starting with the acquisition of vocational skills (Anyadike, Emeh & Ukah, 2012).

There are many problems limiting the performance of Agricultural Science teachers in schools, these include; inadequately funding, poor equipment, inadequate regulation and poor management. All of these are hindrances to bring out their optimum potentials. Most times Agricultural Science teachers do not conduct practical, as well as, allocate demonstration plotsto students, especially in urban schools. Practical Agriculture are handle theoretically. Agricultural science teachers themselves do not demonstrate competence in entrepreneurial skills acquisition due lack of constant practice, especially in the area of identification of investment opportunities in Agriculture, decision to form an enterprises, Agribusiness finance, as well as diversification to different aspect of Agribusiness. To this end, if these trend continue unabated, there will be continuous increase in the number of unemployed graduates among our youth despite the availability of diverse areas of investment in Agriculture. It is in view of this; the researchers are interested in determining Agricultural science teachers' proficiency in entrepreneurship development of senior secondary school students in Gombe State, Nigeria.

Objectives of the Study

The main objective of this study was to determine Agricultural Science teachers' proficiency in entrepreneurship

development of Senior Secondary School Students in Gombe State, Nigeria. Specifically, the study was to determine the proficiency of Agricultural science teachers in;

1. Developing innovations in Agriculture,
2. Developing entrepreneurial creativity in Agriculture,
3. Developing new venture in Agriculture,
4. Identification of investment opportunities in Agriculture,
5. Determination of capital requirements in Agriculture, and
6. Determining Agricultural Science teachers' level of awareness of the forms Agribusiness ownership.

Research Questions

The following research questions guided this study;

1. To what extent are Agricultural Science teachers proficient in developing innovation in Agriculture?
2. What is the level of proficiency of Agricultural Science teachers in developing entrepreneurial creativity in Agriculture?
3. To what extent are Agricultural Science teachers proficient in developing new venture in Agriculture?
4. To what extent are Agricultural Science teachers proficient in identification of investment opportunities in Agriculture?
5. What is the level of proficiency of Agricultural Science teachers in determination of capital requirements?
6. What is the level of awareness of Agricultural Science teachers of the forms Agribusiness ownership?



METHODOLOGY

Survey research design was adopted for the study. Survey research design study a sample taken from a well-defined population (Abdusalami, 2005). The area of the study was Gombe State, Nigeria. The population of this study was made up of 700 urban Agricultural Science teachers (UAST) and 500 rural Agricultural science teachers (RAST) all from Senior Secondary Schools in Gombe State, Nigeria, making a population size of 1200 urban and rural Agricultural Science teachers. The reason for the inclusion of rural Agricultural Science teachers is because it is at rural schools practical demonstration plots are available and students are subjected to real practical activities in Agriculture.

Purposive stratified sampling technique was used to obtain 1000

respondents made up of 500 rural Agricultural Science teachers and 500 urban Agricultural Science teachers. The entire population of rural Agricultural Science teachers was studied while stratified random sampling technique was used to pick the number of urban Agricultural Science teachers that participated in the study. The instrument for collecting data was structured questionnaire which was developed by the researchers for the study. The questionnaire was made up of 32 items which were arranged in accordance with the research questions.

The instrument was subjected to content and face validity by three experts. Data collected were analyzed using mean and standard deviation for research questions 1-6. Decision rule of 2.50 mean, was used.

FINDINGS OF THE STUDY

Table 1: Responses of RAST and UAST in developing innovation in Agriculture (n=1000)

S/N	Items	X	SD	X	SD	X	Remark
1	Creation of new idea for Investment in agriculture	1.64	0.341	.44	0.20	1.54	NP
2	Opening of new Agric enterprises Market	2.40	0.59	2.20	0.18	2.30	NP
3	Developing breakthrough product In Agriculture	1.62	0.62	2.38	0.59	2.00	NP
4	Provision of increment in current Agribusiness product	2.58	0.38	2.34	0.24	2.46	NP
5	Creation of new knowledge of Agribusiness	2.60	0.12	2.36	0.31	2.46	NP
6	Implementation of new Agribusiness idea	3.48	0.10	3.24	0.12	3.31	P
7	Introduction of new method of Agribusiness production	2.62	0.40	2.38	0.53	2.50	P
Grand Mean/ Standard Deviation		2.42	0.36	2.33	0.31	2.37	NP

NP= Not proficient, P= Proficient, RAST= Rural Agricultural science teachers, UAST= Urban Agricultural science teachers

Table 1, reveals that Agricultural science teachers are proficient in implementation of new Agribusiness ideas and introduction of new method of

Agribusiness production with a mean value greater than 2.50 but they are not proficient in the creation of new idea for investment in Agriculture, opening of new



Agribusiness market, developing a breakthrough product, provision of small increment in the current Agribusiness product, as well as creation of new knowledge of agribusiness with a mean

value less than 2.50. The Table also reveals that Agricultural science teachers lacks the ability to develop innovation in Agriculture with a grand mean of 2.38.

Table 2: Responses of RAST and UAST in developing entrepreneurial creativity in Agriculture (n=1000)

S/N	Items	X	SD	X	SD	X	Remark
1.	Introduction of new crop Production (yam etc)	2.54	0.30	2.46	0.43	2.50	P
2.	Opening of farm gate shop	1.38	0.33	1.62	0.30	1.50	NP
3.	Attracting new Agribusiness Customers	2.48	0.34	2.53	0.38	2.51	P
4.	Diversification of Agribusiness enterprises	2.46	0.33	2.38	0.32	2.43	NP
5.	Adopting Agribusiness ideas of others	2.28	0.43	2.52	0.44	2.40	Np
Grand Mean/ Standard Deviation		2.23	0.35	2.30	0.37	2.27	NP

Table 3: Responses of RAST and UAST in developing new venture in Agriculture (n=1000)

S/N	Items	X	SD	X	SD	X	Remark
1.	Knowledge of feasibility studies	2.50	0.28	2.80	0.24	2.65	P
	Clearly stating Agribusiness Objectives	1.52	0.46	1.33	0.33	1.43	NP
2.	Skills of Agribusiness planning	1.40	0.51	1.20	0.42	1.30	NP
3.	Stating new Agribusiness Product	1.53	0.57	1.33	0.46	1.43	NP
4.	Knowledge of Agribusiness location criteria	2.65	0.92	2.45	0.86	2.55	P
Grand Mean/ Standard Deviation		1.72	0.55	1.62	0.33	1.67	NP

NP= Not proficient, P= Proficient, RAST= Rural Agricultural science teachers, UAST= Urban Agricultural science teachers

Table 3 shows that Agricultural science teachers are proficient only in the knowledge of feasibility studies and Agribusiness location with a mean value greater than 2-50 but they are not proficient in the stating clearly Agribusiness objectives, Skills of agribusiness planning, as well as stating or producing new

Agribusiness product with a mean value less than 2.50

Table 3 also shows that agricultural science teachers are not proficient in developing new venture in agriculture with a grand mean of 1.67. Table 3 also shows that agricultural science teachers are not proficient in developing new venture in agriculture with a grand mean of 1.67.



Table 4: Responses of RAST and UAST on identification of investment opportunity in Agriculture (n=1000)

S/N	Items	X	SD	X	SD	X	Remark
1.	Multidimensional nature of Agribusiness	2.50	0.57	1.30	0.46	1.90	NP
2.	Availability of relevant Agribusiness row materials	1.55	0.38	1.35	0.02	1.40	NP
3.	Identification of skill labor	1.59	0.10	1.39	0.04	1.49	NP
4.	Identification of managerial skills	1.40	1.00	1.20	0.82	1.45	NP
5.	Identification of appropriate technology	1.55	0.50	1.35	0.38	1.30	NP
6.	Identification of availability of relevant infrastructure	3.50	0.92	2.30	0.20	2.90	P
7.	Identification of natural Resource endowment	2.60	0.98	2.40	0.18	2.50	P
Grand Mean/ Standard Deviation		2.10	0.64	1.67	0.30	1.90	NA

NP= Not proficient, P= Proficient, RAST= Rural Agricultural science teachers, UAST= Urban Agricultural science teachers

Table 4 show that agricultural science teachers are not proficient in consideration of multidimensional nature of Agribusiness, availability of relevant Agribusiness row material, identification of skill labor, identification of managerial skills as well as identification of appropriate technology with a mean value of less than

2.50 but they are proficient in the identification of infrastructure as well as natural recourse endowment with a mean value greater than 2.50.

Table 4 also shows that Agricultural science teachers are not proficient in the identification of investment opportunity in agriculture with a grand mean of 1.90.

Table 5: Responses of RAST and UAST in determination of capital requirement in Agriculture (n=1000)

S/N	Items	X	SD	X	SD	X	Remark
RASTRAST	UASTUAST	Sub grand Mean					
1.	Determination of capital needed In Agribusiness	2.52	0.53	2.47	0.41	2.50	P
2.	Identification of sources of Capital for Agribusiness	2.38	0.62	2.62	0.52	2.50	P
3.	Determination of duration of capital needed for Agribusiness	2.52	0.48	2.48	0.33	2.50	P
4.	Identification of process required To access capital	2.57	0.69	2.53	0.54	2.55	P
6.	Knowledge for capital management	3.10	0.33	2.30	0.29	2.70	P
7.	Knowledge for cost of Capital	2.28	0.63	3.52	0.46	2.90	P
Grand Mean/ Standard Deviation		2.56	0.55	2.65	0.43	2.61	P

P= Proficient, RAST= Rural Agricultural science teachers, UAST= Urban Agricultural science teachers



Table 5 clearly reveals that Agricultural science teachers are proficient in determination of capital needed, identification of source of capital, determination of duration of capital, identification of process require to access capital, knowledge of capital management

as well as knowledge for cost of capital in Agribusiness investment with a mean value greater than 2.50.

Table 5 also shows that Agricultural science teachers are proficient in determination of capital requirement in Agriculture with a grand mean of 2.61.

Table 6: Responses of RAST and UAST on level of their awareness of forms of Agri business ownership (n=1000)

S/N	Items	X	SD	X	SD	X	Remark
1.	Agribusiness awareness on Sole proprietorship	3.70	0.41	3.50	0.30	3.60	A
2.	Agribusiness awareness on partnership	3.50	0.81	3.30	0.56	3.40	A
3.	Agribusiness awareness on cooperative enterprises	3.10	0.99	2.90	0.96	3.00	A
4.	Agribusiness awareness on Public sector enterprises	3.15	0.40	2.95	0.30	3.05	A
5.	Agribusiness awareness on private limited liability companies	2.60	0.62	2.40	0.59	2.50	A
6.	Agribusiness awareness on public limited liability companies	2.50	0.24	2.51	0.06	2.51	A
Grand Mean/ Standard Deviation		3.09	0.58	2.92	0.46	3.01	A

A= Aware, NA= Not Aware

Table 6 reveals that Agricultural science teachers are aware of the various forms of agribusiness ownership to include; sole proprietorship, partnership, cooperative enterprises, public sector enterprises, public and private limited liability companies with a mean value greater than 2.50. Table 6 also reveals that Agricultural science teachers are aware the various forms agribusiness ownership with a grand mean of 3.01.

SUMMARY OF FINDINGS

The findings of this study revealed that Agricultural science teachers are not proficient in developing innovation, entrepreneurial creativity, new venture creation as well as, identification of investment opportunities in Agriculture, but they are proficient in determination of

capital requirements in Agriculture, they are also aware of agribusiness ownership.

DISCUSSION OF FINDINGS

The findings of the study, that Agricultural science teachers are not proficient in developing innovation, entrepreneurial creativity, new venture creation as well as, identification of investment opportunities in agriculture as revealed in Tables 1,2,3 and 4, means that Agricultural science teachers, who are expected to be entrepreneurs by nature, especially in harnessing the great opportunity available in Agriculture, lack the necessary entrepreneurial skills required to impart to the students. This is contrary to the position of Anyadike, Emeh and Ukah (2012) that entrepreneurship is more than starting a business, having



capacity to identify opportunities, allocate resources, and create value, ability to undertake innovations with finance and business acumen in an effort to transform innovations into economic growth. The findings was also in line with the findings of Awogbenle and Iwuamadi (2010) and that of Omoruyi and Osunde, (2004) that ineffectiveness of the vocational courses in the school curriculum to address entrepreneurial skill acquisition and youth unemployment which assumed alarming proportion, prompted the Federal Government to set up the Chukwuma Committee on 26 March, 1986).

CONCLUSION

Conclusively, Agricultural science teachers in senior secondary school are only proficient in the determination of capital requirements in Agriculture including, awareness the various forms of agribusiness ownership.

RECOMMENDATIONS

1. Workshop and seminars should be regularly organized on entrepreneurship development for Agricultural science teacher especially in the area of developing innovation, entrepreneurial creativity, new venture creation as well as identification of investment opportunity in agriculture this can be achieve through collaboration with ministry of education as well as ministry for agriculture.
2. Financial support should be provided to Agricultural science teachers by the government since they are knowledgeable enough in terms of determination of capital requirements in Agriculture and also aware of the forms of agribusiness ownership in Agriculture, this will enable them proffer solutions to the problems of

entrepreneurship in Agribusiness for students.

3. The curriculum of senior secondary school Agriculture should be design so as to accommodate the aspect of entrepreneurship in vocational Agriculture including crop, animal husbandry and Agribusiness.

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