



Assessment of Employability Skills Possessed by the Final Year Agricultural Education Students in Tertiary Institutions in North Central Nigeria

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ABSTRACT

The study assessed graduates' and educators' perceptions of employability skills posed by the final year of Agricultural education students in tertiary institutions in North Central Nigeria. A survey research approach was adopted. A purposive sampling technique was used to select 232 graduates of Agriculture education and educators from the institutions offering agricultural courses in the three divisions of North Central Nigeria. The data were analysed using multiple regression. The findings revealed that Communication Skills Acquired, Problem-Solving/Critical Thinking Skills and Teamwork/Collaborative Skills Acquired were perceived by graduates as being most important to their employability skills, while Leadership Skills Acquired were perceived as least important. It was recommended among others that institutions should revisit the academic curricula of their institutions to include those skills that could enhance the marketability of agriculture graduates and their career advancement in the workforce.

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INTRODUCTION

Graduate unemployment is a growing global phenomenon that is negatively affecting the present and future socio-economic development of any nation. This phenomenon seems visible in Nigeria among final year students of agricultural sciences and it suggests the need for better strategies to accommodate the growing number of graduates without jobs. These concerns have been given renewed focus in the current climate of wider labour market uncertainty (Coursera, 2023). Policymakers continue to emphasise the importance of 'employability skills' in order for final students to be fully equipped in meeting the challenges of an increasingly flexible labour market. Therefore, graduate unemployment has continued to increase in Nigeria in the absence of lack of employability skills. On yearly basis, large number of graduate students is sent out of Nigerian Tertiary institutions without a corresponding employment in the labour markets to absorb them.

While scholars debated ideas relating to employability as early as the 1930s, the agenda started to gather momentum in the 1990s, as a direct consequence of the evolving role of the university as producer of human capital (Harvey, 2015). Thus, contemporary definitions of employability skills tend to be underpinned by human capital theory, focusing on the individual possession of skills, knowledge and other attributes acquired through university education that enable individuals to secure and maintain employment (Suleman, 2018).

As the interest in promoting employability skills has increased, several studies have produced detailed breakdowns and taxonomies of particular skills and attributes required to promote employability skills posed by the final year such as communication skills, problem solving/critical thinking skills leadership skills, team work/collaborative skills, information technology skills, planning and organising skills, creativity thinking skills, enterprising skills, time management skills, initiative skills, self-

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management skills and adaptability skills. This study encourages us to think of employability as an ongoing developmental process that does not stop once the graduate is employed.

Oluwakemi and Adeolu (2017) argue that employability is much more than the acquisition of key skills or getting a job - it is about developing graduates as critical, empowered learner. Employability tends to have a variety of meanings in use, ranging from the employment rates of graduates from an institution to a characteristic of an individual graduate. Okolie, et al. (2019) defined employability as qualification required of key skills, ability, and attitudes that lead to successful qualification of appropriate work opportunity within the discipline. Whereas Mohamad et al. (2018) defined employability as skills that graduates equipped with to enable their acceptance in the labour market.

The definition of tertiary education institution differs according to the context. Almost all definitions agree that tertiary education refers to post-secondary education (or study beyond the level of post-secondary education) where a degree, diploma, or certificate is awarded at the end of study. Tertiary education institution builds on the level of competence, knowledge and skills normally acquired in secondary education (Virtanen & Tynjälä, 2018).

Consequently, the concept of tertiary education institution may also vary. For example, in some countries, teacher education is considered to be a field of higher education. In some countries, it is considered to be part of post-secondary education but not part of higher education (Coursera, 2023). The Association of African University s (AAU) Working Group on tertiary education institution recommends that tertiary education institution should include tertiary education institutions other than universities. In addition, at the second African Union (AU) Meeting of Experts, tertiary education institution was described as including all post-secondary education, including universities, polytechnics and technical colleges, teachers training institutions, institute for medical training and agriculture (and other fields), distance education centers, and research centers and institutes, with the possibility

of expanding to include other forms of post-secondary education (Sodipo, 2016).

The term 'agriculture education' constitutes two terms from two different disciplines, agriculture being from the natural sciences and education mainly linked with the social sciences. Consequently, the term is split and discussed separately, before combining the conclusions of the definitions constituting agriculture education for a better conceptual understanding of agriculture education in this study. Agriculture is the science of working the soil to harvest crops and rear livestock for commercial gains (Landry, 2017). This practice in agriculture is associated with farming whereby products from the crops and those from the livestock are sold for profit making. Abas et al. (2018) on the other hand define agriculture historically, considering the anthropocentric nature of people with reference to the practice of agriculture.

Historically, the hunter-gatherers domesticated plants and animals and had knowledge about taking care of them for production (Abdulkareem, 2016). During that time, the hunter-gatherers would term those animals that were not wild as others for meat, transport and their skin. In the same vein, the hunter-gatherers stored, planted and harvested the products of the seeds according to seasons. In contrast, Reddeppa (2019) define agriculture in a technological fashion, referring to the application of advanced techniques including machineries and other equipments in growing of crops and keeping of livestock to improve production. Agriculture products refer to the raw materials such as skin, hay, stalks and consumable products such as milk, meat, and seeds which can be processed in to different goodies for economic gains (Fadhil & Alnoor, 2021).

On the basis of literature conducted from reputable local and international journals, observed to the researchers' dismay that very little work on this subject had been done and published. While very few of these studies have attempted to assess the employability of graduates from tertiary education institutions in Nigeria, there is none available empirical work that assessed the employability skills posed by final

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year agricultural education students in tertiary institutions in North Central, Nigeria, thus creating a gap which this study intends to fill. It is therefore, needful to assess the assessed the employability skills posed by the final year agricultural education students in tertiary institutions in North Central, Nigeria.

Objectives of the Study

The main objective of the study is to assess the employability skills posed by the final year agricultural education students in tertiary institutions in North Central Nigeria. Specifically, the objectives of the study are to:

1. assess communication skills acquired by the final year agricultural education students in tertiary institutions in North Central Nigeria;
2. assess problem solving/critical thinking skills acquired by the final year agricultural education students in tertiary institutions in North Central Nigeria;
3. assess leadership skills acquired by the final year agricultural education students in tertiary institutions in North Central Nigeria;
4. assess team work/collaborative skills acquired by the final year agricultural education students in tertiary institutions in North Central Nigeria;

The human capital theory (Schultz 1961; Becker 1964) argues that education increases individuals' productivity, which consequently enhances job performance. As such, education provides marketable skills and abilities relevant to job performance, and thus the more highly educated people are the more successful they was in labour markets in terms of both incomes and work opportunities (Fadhil & Alnoor, 2021). Country specific human capital theory assumes that certain aspects of human capital such as "communication skills, problem solving/critical thinking skills leadership skills, team work/collaborative skills, information technology skills, planning and organising skills, creativity thinking skills, enterprising skills, time management skills, initiative skills, self-management skills, and adaptability skills adapted to national requirements" often acquired when studying abroad, are more useful in some labour markets than others (Waidi, 2021). A range of investigations have suggested that the international education experience can improve final year students' labour market returns in both the host countries and the graduates' home countries (Sternberg, 2014). While the human capital theory has become a popular explanatory tool for the relationship between education attainment and labour market outcomes, it has received criticism too.

LITERATURE REVIEW

Theoretical framework

The theoretical framework for this study is anchored on the theory of Human Capital Theory

Human Capital Theory

The theory stresses the role of investment in education in order to boost economic and social achievement (Coursera, 2023). It equally suggests that education or training raises the productivity of workers by imparting useful life skills on the individuals. The theory is useful in correlating education offered by tertiary education institutions with employability skills required by the labour market.

Communication Skills acquired/possessed by the Final Year Agricultural Education Students in Tertiary Institutions in North Central Nigeria

Communication skills are recognized as important elements in education of the modern generation (Zaugg, & Davies, 2013). According to Bharathi (2016), personality development remains incomplete, if the communication skills are ignored. Communication is the actionable transfer of information from one person, group, or place to another by writing, speaking, or using a medium that provides a means of understanding.

Communication is the process that occurs between two or more people in which a message is delivered and received by the other party (Jayasree & Ragini, 2021). Communication can be seen as an application of first or second

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language literacy that is for example an ability to produce clear, structured written work; to possess effective listening and questioning skills; to demonstrate effective negotiating and persuasion skills; and to establish networks and share information across a range of technologies (Al Shayeb, 2013). These applications of literacy can critically extend into the job seeking process where potential employees seek to impress potential employers through the creation of CVs tailored to the company or the role, demonstrate background research into the company (Yorke & Knight, 2016) and broadly establish 'cultural fit' (Hager, 2016).

Problem Solving/critical Thinking Skills acquired by the Final Year Agricultural Education Students in Tertiary Institutions in North Central Nigeria

A problem is any difference between an actual situation and the desired situation. Problem-solving is the process of identifying a discrepancy between an actual and desired state of affairs and then taking action to resolve the deficiency or take advantage of the opportunity (Al Shayeb, 2013). The steps in problems solving/critical thinking processes have been characterized as complex processes in which an individual identifies and evaluates several alternative courses of action and selects an alternative for the purpose of implementation. In fact, the terms are sometimes used interchangeably (Pang, et al., 2019).

Leadership Skills acquired by the Final Year Agricultural Education Students in Tertiary Institutions in North Central Nigeria

Leadership is a process whereby an individual influences a group of individuals to achieve a common goal (Orohu, 2021). Leadership is that which pulls together people with diverse talents, backgrounds, experiences and interests, encourages them to step up to responsibility and continued achievement and treats them as full scale partners. Leadership skills are the tools, behaviours and capabilities that leaders should have in promoting well-being of the employees and leading to up-gradation of the

organizations (Leadership Skills, 2015). The primary job duties of the leaders are focused towards directing and motivating employees towards the implementation of job duties and achievement of goals and objectives. The true leadership skills involve helping the individuals grow in their own abilities (Wang, et al. 2020). The leaders gain success in the implementation of leadership skills, when they facilitate others to grow in their own abilities. The leadership skills are numerous.

Team Work/Collaborative Skills acquired by the Final Year Agricultural Education Students in Tertiary Institutions in North Central Nigeria

Most employers want employees who was effective in today's changing economy (Osmani, et al, 2015). The employer's demand indicates that occupation-specific skills are no longer sufficient for final year students to meet the needs of today's labour markets. They prefer to hire graduates who can manage change and thrive on it, flexible and adaptable workers who are quick to learn. Increasingly, graduates' attributes are more important than the graduates' degree subjects. The teamwork skills are the attributes of employability skills with highest importance level. In addition, final year students are also expected to have a number of personal attributes included: self-awareness, self-confidence, independence, emotional intelligence, flexibility and adaptability, stress tolerance, creativity and initiative, willingness to learn, reflectiveness, lifelong learning, and professional behaviour (Osmani, et al, 2015).

METHODOLOGY

The research was survey research design for the study. The researcher constructed questionnaires for the graduate students and agricultural teachers' educators in the department of agricultural education from the tertiary educational institutions selected for the study. Population is all the members of the target of a study as defined by the aims and objectives of the study. From this definition, it is very clear that population refers to a specified group of human

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beings or non-human entities over which a study is going to be conducted.

The study population consists of 552 both final year students and Agricultural teachers' educators across the selected tertiary educational institutions in the six states including the Federal Capital territory Abuja within the North central zone and a particular focus on both the Federal and State universities. The population of the study comprises of all the final year students of Agricultural education in North Central Zone, Nigeria. These include University of Abuja, Joseph Sarwuan Tarka University Makurdi, Benue State, University of Jos Plateau State, Federal University Lokoja, Kogi State, IBB University Lappai, Minna, Niger State, University of Ilorin, Kwara State, Federal University, Lafia, Nasarawa State. The researcher made use of Yamane's 1964 formula to select the sample size for the study.

The formula is given below:

$$n = \frac{N}{1+N(e)^2}$$

Where n = Sample Size

N = Population for the study

e = Limit of precision or tolerable error usually taken at 0.05 degree of confidence.

1 = Constant

Therefore, sample size for the study is;

$$n = \frac{552}{1+552(0.05)^2}$$

$$n = \frac{552}{1+552(0.0025)}$$

$$n = \frac{552}{1+1.38}$$

$$n = \frac{552}{2.38}$$

$$n = 232 \text{ sample size}$$

Multi-stage sampling was adopted for this study. In the first stage, Agricultural education final year students in each university was purposely selected. On the second stage, the Agricultural teacher educators from each of the university were selected. The selection of the final year students and educators who are respondents from each of the universities. two hundred and thirty two (232) both final year students and

educators was selected from each of the seven universities to serve as the respondents.

The final year students and educators was selected from their state using simple random sampling techniques. The number of final year students and educators were gotten from university record. In using simple random method, balloting system was applied. The researcher wrote "Yes" and "NO" on pieces of paper and rolled them into a container and mixed them up after which respondents was ask to pick and those who pick 'Yes' were automatically constitute members of respondents. This method was chosen because, it gives every member of the population a chance of being selected hence it is fair and reasonable to generalize to the entire population. On the last stage, each university that offers agricultural education was randomly selected. In order to achieve the objectives of this study, the researcher collected data from both primary and secondary sources.

The questionnaire was administered on the sampled population. Before administering the questionnaire, the respondents were briefed and guided on how to fill the questionnaire. After filling the questionnaire, it was later retrieved by the researcher and his assistants. The questionnaire administered contain the responses which was measured with a five-point Likert type rating scale, where strongly Agree (SA) =5 Agree (A) = 4; Not sure (NS) =3; disagree (D) = 2; strongly Disagree (SD) = 1. The questions was constructed in English language.

The study adopted both quantitative and qualitative method of data analyze. The statistical package for social science (SPSS) version 26 was used to analysis the quantitative data. Descriptive statistics was used to summarize respondent's characteristics, including demographic information, while inferential statistics (multiple regression analysis) was used to assess the implication of employability skills posed by the final year agricultural education students in tertiary institutions in Nigerian and test hypotheses to determine the relationship between variables of the study.

RESULT AND DISCUSSION

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Reliability of the Measurement Scale

This study carried out a reliability analysis to establish the reliability of the independent variables in the study. As indicated in Table 1, a Cronbach's Alpha value of the variables is as follow; Communication Skills Acquired has 0.861 with 7 items, Problem Solving/Critical Thinking Skills Acquired 0.623 with 5 items,

Leadership Skills Acquired has 0.852 with items, Team Work/Collaborative Skills Acquired has 0.869 with 5 items and the last variables is Agricultural Education Students Employability Skill reliability of 0.902 with 8 items. The Variable-Total statistics in Table 1, reveal that each of the variables had a measure of over 0.7.

Table 1: Reliability Result

S/N	Variables	Number of Items	Cronbach's Alpha
1	Communication Skills Acquired	7	0.861
2	Problem Solving/Critical Thinking Skills Acquired	6	0.823
3	Leadership Skills Acquired	7	0.852
4	Team Work/Collaborative Skills Acquired	5	0.869
5	Agricultural Education Students Employability Skill	9	0.902

Hypotheses Testing

According to the regression model applied in this study on Table 2, R Square was 0.685 and adjusted R square is 0.680 implying that the independent variables studied explain 68.5% of the Communication Skills Acquired, Problem Solving/Critical Thinking Skills Acquired, Leadership Skills Acquired, Team Work/Collaborative Skills Acquired on Agricultural Education Students Employability Skill. This implies that the other variables not studied in this

research contributed 31.5 % variability of Agricultural Education Students Employability Skill Agricultural Education Students Employability Skill. The ANOVA report or F statistics on Table 2 indicated that the overall significance of the regression model applied in this study indicates that, $p < 0.05$ (Sig. = 0.00) and therefore our model is significant because Mean Square 1604.955, the F value is 122.463 and the significant level is 0.000.

Table 2: Coefficients (Test of Hypotheses)

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
1 (Constant)	10.062	1.202		8.374	0.000
CSA	1.968	0.064	0.831	15.187	0.000
PSCTSA	0.223	0.078	0.170	2.848	0.005
LSA	0.027	0.056	0.024	0.489	0.625
TWCOLSA	1.029	0.093	0.642	11.109	0.000
R	0.828				
R Square	0.685				
Adjusted R Square	0.680				
df	4				
Mean Square	1604.955				
F	122.463				
Sig.	0.000				

a. Dependent Variable: AESEMPBSK = Agricultural Education Students Employability Skill

Note: CSA = Communication Skills Acquired, PSCTSA = Problem Solving/Critical Thinking Skills Acquired, LSA = Leadership Skills Acquired, TWCOLSA = Team Work/Collaborative Skills Acquired

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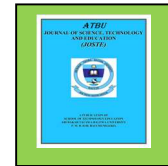


Table 2 shows the coefficient of the variables which indicated that Communication Skills Acquired has $\beta = 0.968$, $t = 15.187$, $P=0.000$ this means Communication Skills Acquired has a significant impact on Agricultural Education Students Employability Skill. The finding of this study is in line with study of Bharathi (2016). Problem Solving/Critical Thinking Skills Acquired has $\beta = 0.223$, $t = 2.848$, $P=0.005$, this means Problem Solving/Critical Thinking Skills Acquired has a significant impact on Agricultural Education Students Employability Skill. The finding of this study is consistent with study of Pang, et al. (2019). Leadership Skills Acquired has the $\beta = 0.027$, $t = 0.489$, $P = 0.625$ it indicates that there is no significant impact of Leadership Skills Acquired on Agricultural Education Students Employability Skill. The finding of this study is in line with study of Orohu (2021). Team Work/Collaborative Skills Acquired has the following values $\beta = 1.029$, $t = 11.109$, $P=0.000$ this show that Team Work/Collaborative Skills Acquired has significant impact on on Agricultural Education Students Employability Skill, so the null hypothesis is rejected and accepted alternate hypothesis. The finding of this study is consistent with study of Osmani, et al, (2015)

CONCLUSION AND RECOMMENDATIONS

The outcome of this study has revealed the perceived importance of certain employability skills and perceived competence level by agriculture education graduates, lecturers and employers.

Based on the findings of the study, the following recommendations are put forward:

1. Agricultural institutions should continue to provide learning experiences that support the acquisition of the highly rated skills such as Problem solving and Analytic skill,
2. Agricultural education department/schools should provide creativity and Innovation skill and Motivation skill because they are perceived as being important to agriculture graduates.
3. Agriculture education Departments/ schools/ faculty should offer workshops/trainings to their faculty

members in order to provide direction for curriculum enhancement.

4. They should offer revisit academic curricular of their institutions for the purposes of including those skills that could possibly enhance the marketability of agriculture graduates and their career advancement in the workforce..

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