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Employers' Perception of the Employability Skills of Agricultural Education Graduates in Colleges of Education in North-Central, Nigeria

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***Abstract**: The study assessed employers' perception of the employability skills of Agricultural Education graduates in colleges of education in North-Central, Nigeria. Three objectives and three research questions guided the study with three corresponding null hypotheses formulated and tested at 0.05 level of significance. The study adopted survey research design with the population of 330 respondents consisting of employers, administrators and principal officer's .the subjects possessing a minimum of Masters (M.Ed/M.Sc/M.Tech.) degrees identified in the fourteen public Colleges of Education offering Agricultural Education courses in North- Central, Nigeria. There was no sampling since the population was manageable. The instrument used for data collection was a self-structured questionnaire titled: Employability (cognitive, non- cognitive and technical) Skills of the Agricultural Education Graduates Questionnaire (EMSAEGQ). The instrument was subjected to face and content validity by five research experts. The validated instrument was trial tested on fifty respondents and subjected to test of reliability using Cronbach Alpha (α) method which yielded reliability coefficients of 0.87. The instrument (EMSAEGQ) was administered within one week by the researcher, with the help of seven research assistants. Data collected for the study was analyzed using frequency, mean and standard deviation to answer research questions and chi-square goodness-of-fit test was used to test the null hypotheses at 0.05 level of significance. The findings of the study revealed that Agricultural Education graduates possessed twenty cognitive, non-cognitive and technical employability skills; important characteristics of core cemployability skills of Agricultural Education graduates were peceived by employers; cognitive, non- cognitive and technical employability skills competence levelwere percieved by the employers and amongs others.Based on the findings of the study, the following recommendations were made: the National Commission for Colleges of Education should constantly review the Agricultural Education curriculum in colleges of Education to reflect courses that will teach the required skills by employers; Agricultural education graduates should be encouraged to take up employment that will enable them apply employability skills they show high level of competence etc and There is need for the administrators of Colleges of Education in conjunction with the National Commission for Colleges of Education should monitor the implementation of the employability skills of Agricultural Education in order to ensure that appropriate skills content presented by this study were implemented in training student of Agricultural Education.*

***Keywords:** Agricultural education graduates, employability skills, employers' perception*

1.0 INTRODUCTION

1.1Background to the Study

The demand for skills has necessitated the availability of highly- skilled labour (Md Saad and Majid, 2014). The changing demands for employability skills require high skilled employees. This is due to the double challenge of a competitive business world and rapid technological advancement that calls for a transformation of the workplace, which necessitates great focus on work that goes beyond task performance (El Mansour and Dean, 2016).Therefore, in this challenging environment, the role of higher education institution is not only to produce graduate with specific area of specialization, but more importantly, to develop graduate employability skills that match the demand required by industry (Md Saad and Majid, 2014). The workforce in the 21st century not only requires graduates with high academic qualifications as represented by the subject and degree class but also equipped with a number of skills and attributes. Employer surveys indicate that occupation-specific skills are no longer sufficient for graduates to meet the needs of national labour markets (OECD. 2013). In addition to basic and specific knowledge and skills, workers are nowadays expected to have an additional set of skills.

Some investigations have revealed that National Higher Institution employers reported that many graduates are not equipped with employability skills, such as management skills, communication skills, interpersonal skills, teamwork, professional knowledge and principles, problem solving skills and decision-making skills (Mohd and Puad, 2018). Perhaps, due to insufficient employability skills, many tertiary institutions may find it is very difficult to employ graduates of agricultural education, especially in the global competitive market and the fast- changing working environment of nowadays. Thus, absence of employability skills makes it difficult for individuals to fulfill the current work demands and professional expectations (Mohd and Puad, 2018). An employer seems to be in agreement with what are considered to be the most important skills that they look for in graduates. Higher Education Institutions are establishments that provide for education and training in the majority of disciplines that are sought after in the job market, and employers are the final consumers. Indeed, in today's workforce, where changes and increasing competitions seem obvious, Institutions of higher learning such as the College of Education, universities and so on should ensures that they prefer employ graduates who would not only have skills but also employability skills that are applied in the nature of their vocational areas of engagement (Attamah and Dauda, 2017). A number of skills and attributes called employability skills, are required by graduates of several of sessions to prepare themselves to meet the needs of various occupations in the work place. Employability skills are considered one missing link between education and training and the world of work. The current working environment differs from the previous age, and should be considered in work employment.

Furthermore, employability becomes very important as it facilitates graduates to move from one job to another, within and between organizations. Employability skills (cognitive, non-cognitive and technical) become a very important issue at the national, regional, and international labor market. Nevertheless, labor market as one of the driving forces of the content and quality of education attributes high value to international recognition of qualifications and education. Since labour market uses and applies the learning outcomes in real life, quality of education and training policy, cannot exist separately from it. The pressure of global competition means that

graduates need to offer an employer more than academic skills traditionally represented by the subject and degree class. It has been noticed that one of the results of the research stated that employers need employees who possess three key types of skills: cognitive, non-cognitive, and technical. Although basic cognitive skills and technical skills are important in the workplace, non-cognitive skills such as communication, punctuality etc, and cognitive skills such as problem solving, flexibility etc are most important (Jayaram and Engmann, 2014). Employers in the context of this study are the Colleges of Education Administrators, Supervisors and Heads of Department that employ Agricultural Education Graduates. Colleges of Education as employers of labour in Nigeria need particular attributes and Characters as well as skills required for specific roles in combinations with transferable skills such as team working, self-management, Information and Communication Technology (ICT) knowledge, problem solving, good interpersonal, communication skills and leadership skills (Jayaram and Engmann, 2014).

Unemployment indeed, seem dangerous as it sends disturbing signal to all segments of Nigerian society and presently, Nigeria has unemployment rate of 33% with thousands of university graduates doing miniful jobs in work place for survival (O'Nwachukwu, 2016).The development of Information and Communication Technology (ICT) has shifted the types and nature of available jobs and changes in the world economy that require people to adapt quickly to the needs of the world of work. Thus, the governments of many nations, especially in developing economies such as Nigeria, Ghana and Senegal etc have sought ways to educate and improve their human capital to address these challenges (Dania, Bakar and Mohamed, 2014). The focus of this study was that the acquisition of relevant employability(cognitive, non-cognitive and technical) skills by Agricultural Education graduates would increase their chances of being employed in the labour market as employer are expecting job seekers to possess some physical, intellectual and affective skills, which will enable them to be efficient and effective on their job when employed.

Basically, Employer's perceptions of the employability- cognitive, non-cognitive and technical skills, possessed by agricultural education graduates working in Nigerian Colleges of Education are important, and varies from culture to culture and region to region (Attamah *et al.,* 2017). In this study, Employers' perceptions would determine the objective opinions and aspirations of agricultural education graduates have been met. Employability skills as a social concern should be treated at a group level, and not at an individual level. The concerns are not just the responsibility of the graduate alone, but the employers and tertiary institutions should help the graduates in developing the desirable employability (cognitive, non-cognitive and technical) skills (Clarke 2018). Furthermore, it has been observed that apart from theory, graduates of institutions needs skills that are non-cognitive in nature, such as critical thinking skills, problem solving skills, social skills, persistence, creativity, and self-control etc; which will allow graduates to contribute meaningfully to the society and promote success in their public lives, work places, homes and other societal context (Garcia, 2016). The author equally stressed that these are only few strategies aimed at nurturing employability skills in the past within the Colleges of Education context or education policies of the society.

The perception of the employability (cognitive, non-cognitive and technical) skills are beginning to attract the attention and discussions in Agricultural Education, indicating the need for thoughtful and proper focus by researchers, policy makers, and practitioners (Garcia, 2016).There

seem to be a great emphasis on the expectation of employers in Colleges of Education, and other tertiary establishment in the society concerning employability skills of graduates of Agricultural Education in their effort to succeed in the workplace. However, the perception of employers would x-ray what is currently taught and learned in the Nigeria Certificate in Education (NCE) Courses at Colleges of Education and what the employers actually desire of the products of the programmed. (Chung, Ching, Cheok and Hill, 2015).

Employability skills in the context of this work are those basic skills necessary for getting, keeping and doing the job well. These skills are considered necessary to help Agricultural Education graduates not only to be on the jobs and to achieve success in modern life. Graduate employability skills on the other hand, has been viewed by the Confederation of British Industry (CBI) and Pearson (2012) as a set of skills that comprise of a positive attitude to work; self-management; team working; business and customer awareness; problem solving; analysis skill; basic numeracy skill; Application of information technology; knowledge about their chosen job/career; international cultural awareness; and foreign language skill. Audu, Kamin and Saud (2013), reported that some graduates of Technical Vocational Education (TVE) usually master their technical skills but employers normally feel dissatisfied of their employees when it comes to employability skills because these employees lack motivational skills, communication skills, interpersonal skills, critical skills problem-solving skills and entrepreneurship skills.

Agricultural Education is a programmed of study that prepares the learners with necessary skills, knowledge, attitude and competencies needed for employment, advancement on a job and self-reliance. Acquired skills enhance individuals' opportunity to become asset to the society as he becomes productive and functional individual contributes meaningfully towards the development of the society rather than a liability or dependent citizen. Also, Agricultural Education is one of the courses in tertiary institutions that give students opportunity to acquire relevant skills for self-development. The Federal Republic of Nigeria (FRN 2013) stressed that Agricultural Education is a vocational technical education for promoting, developing and alleviating poverty. Therefore, employability skills promotes self-employment as well as paid employment at institutional level. It focuses on the overall organizational performance functions to adapt to changes as it prepare individuals with functional and saleable skills, knowledge and attitude that would enable them to operate in whatever environment they find themselves. It is from the fore-going that this study was set to assess Employer's Perceptions of the Employability Skills of Agricultural Education Graduates in Colleges of Education in North- Central, Nigeria.

1.2 Statement of the Problem

It has been observed that Agricultural Education graduates working in colleges of education do not possess necessary employability (cognitive, non-cognitive and technical) skills, knowledge and experiences needed to be employable and more functional in the world of work and business. The core skills which include: communication skills, problem solving skills, management skills, teamwork, decision-making skills, competency skills, leadership skills, management skill, computer skills, technical skills, employee personal skills, creativity skills, numeracy skills and among others seem not developed in the Agricultural Education graduates.

The effect of these ill-equipped core skills could be that most Agricultural Education graduates who are expected to be productive and contribute to the societal economic development are found in the streets unemployed, while few who have jobs are perceived ineffective and inefficient in discharging their duties and responsibilities, thereby unable to advance on their jobs. Some researchers have attempted to investigate the cause of these ill-equipped and challenges in some professions, but not among Agricultural Education graduates. Therefore, this study was directed towards filling the gap and focused on the employers' perceptions of the employability skills of Agricultural Education Graduates in Colleges of Education in North-Central, Nigeria.

1.3 Objectives of the Study

The purpose of the study was to assess the employers' perceptions of the employability skills of Agricultural Education graduates in colleges of education in North-Central, Nigeria. The specific objectives of the study were to:

1. Identify the cognitive, non-cognitive and technical employability skills possessed by Agricultural Education Graduates in Colleges of Education in North-Central States Nigeria;

2. Ascertain the employers' perceptions of the characteristics of the cognitive, non-cognitive and technical employability skills of Agricultural Education Graduates in College of Education in the study area ;

3. Determine the employers' perceptions of the cognitive, non-cognitive and technical employability skill competence level of Agricultural Education Graduates in Colleges of Education in North-Central, Nigeria;

1.4 Research Questions:

The following research questions guided the study;

1. What are the employability- cognitive, non-cognitive and technical skills possessed by Agricultural Education Graduates in Colleges of Education in North-Central, Nigeria?

2. What are the employers' perceptions of the characteristics of cognitive, non-cognitive and technical employability skills of Agricultural Education Graduates in Colleges of Education in North-Central, Nigeria?

3. What are the employers' perceptions of the cognitive, non-cognitive and technical employability skills competence level of Agricultural Education Graduates in Colleges of Education in North-Central, Nigeria?

1.5 Research Hypotheses

The following null hypotheses were formulated and tested at 0.05 levels of significance:

H_{O1}. The employers' perceptions of the employability-cognitive, non-cognitive and technical skills possessed by Agricultural Education Graduates do not differ significantly in Colleges of Education in North-Central, Nigeria.

H_{O2}: The employers' perceptions of the characteristics of the cognitive, non-cognitive and technical employability skills of Agricultural Education Graduates do not differ significantly in Colleges of Education in North-Central, Nigeria.

H_{O3}: The employers' perception of the competence level of Agricultural Education Grad ensuring the cognitive, non-cognitive and technical Employability skills do r significantly in Colleges of Education in North-Central, Nigeria.

2.0 METHODS

The study adopted survey research design. The design was considered appropriate for the study because it used the questionnaire for collecting data from the employers and administrators on their perceptions of the cognitive, non-cognitive and technical employability skills of Agricultural Education Graduates: The findings from the work were generalized on the entire population of the same respondents in North-central Nigeria. The study covered the entire North central part of Nigeria and carried out in fourteen public Colleges of Education in North Central, Nigeria and composed of the following states: Kogi, Kwara, Benue, Nasarawa, Niger, Plateau, and the Federal Capital Territory, Abuja. There are three (3) Federal Colleges of Education and eleven (11) States owned Colleges of Education making a total of fourteen (14) Colleges of Education in North Central, Nigeria. The justification for the choice of this area is that, the area has a good number of Colleges of Education with highly qualified and experienced personnel that had potentials for the perception of the possessed core employability skills that makes agricultural education graduates employable in the work force.

The population for the study was 330 subjects- comprising of employers, administrators and the Principal Officers of the Colleges of Education in North Central, Nigeria. The subjects possess a minimum of Masters (M.Ed/M.Sc./M.Tech.) degrees in their professions in the fourteen public Colleges of Education offering Agricultural Education courses in the study area. The choice of these respondents who are staff in Colleges of Education was based on their knowledge of the core employability skills. The sample for the study was the entire population of 330 subjects (employers, administrators and the Principal Officers of the Colleges of Education in the study area). There was no sampling as the study was a census survey of the whole population. This was because the population was small and effectively managed by the researcher.

The instrument used for data collection was a structured questionnaire titled: *Employability Skills of the Agricultural Education Graduates Questionnaire (EMSAEGQ,* developed by the researcher from literature reviewed. The questionnaire was divided into two parts namely; A and B respectively Part A sought to elicit information on the personal data of the respondents; while Part B had 140 items in seven sections (1 – 7), which was used to collect data on the specific

objectives of the study. The questionnaire (EMSAEGQ) had response categories which was rated by employers/administrators and principal officers of Colleges of Education. The instrument (EMSAEGQ)required the respondents to rate each of the items on a five-point rating scale of either Highly possessed(HP),possessed (P), Averagely possessed (AP), Slightly possessed (SP), and Not possessed (NP) for section 1, Highly Important (HI), Very Important (VI), Important (I), and Lest Important (LI), Not Important (NI) Highly Competent (HC), Competent(C), Moderately competent (MC), Least Competent (LC), Not Competent(NC) for sections with corresponding nominal values of 5, 4, 3, 2, and 1 respectively for each section. The instrument (EMSAEGQ) for the study was subjected to face and content validity by five experts; Two experts in Department of Agricultural Education, Two experts in Educational Test and Measurement, from the Department of Educational Foundations and General Study, all from Joseph Sarwuan Tarka University, Makurdi and one expert from Department of Arts Education, Kogi State University, Anyigba. The experts were given a copy of the questionnaire containing the items, specific objectives of the study, research questions and hypotheses to ensure thorough understanding of the study. The experts were requested to read the items of core employability skills thoroughly for correctness on any wrongly spelt word, ambiguous or unclear statements and wrong information on the questionnaire items. They were also requested to add any missing information or core employability skill(s) that were needed but not included. The suggestions and corrections made by the experts were incorporated in the questionnaire. The validates suggestions also led to the complete removal of some items, splitting of items that were incorrect and ambiguous as well as inclusion of some recommended ones which were not in the drafted copy.

3. Reliability of the Instrument

The reliability of the validated the instrument was determined from a trial testing that was conducted in Kano State in North-west, Nigeria. The validated instrument was trial tested on fifty respondents comprising: Twenty (20) from Federal College of Education (Technical), Bichi; Fifteen (15) from Federal College of Education Kano; Fifteen (15) from Sa'adat Rimi (State) College of Education, Kano State; being public Colleges of Education offering Agricultural Education in the above aforementioned State that were not part of the population for the study, but had similar characteristics (concentration of Colleges of Education and principal officers with experienced personnel) compared to that of the population of the study. Cronbach Alpha method was used to estimate the reliability coefficient of the instrument which yielded reliability coefficients of 0.873 for the 140 items was obtained, indicating that the instrument was reliable enough for the purpose of collecting the needed data.

4. Method of Data Collection

The researcher engaged seven research assistants in administering the instrument on the respondents in the respective institutions, to employers/administrators and principal officers. A total of three hundred and thirty (330) copies of the instrument were produced and administered on the respondents. The administered instrument was retrieved after one week and some on the spot. However, a total number of three hundred and twenty-two (322) copies of the instrument were properly filled and returned representing 97.58% return rate.

5. Data Analysis Techniques

The data was analyzed using both descriptive and inferential statistics. Descriptive statistics of frequency and arithmetic mean were used to answer the research questions, while inferential statistics of chi-square (precisely, chi-square test of goodness -of- fit) was used to test the null hypotheses at 0.05 level of significance (p). Chi-square statistic measured the relationships between variables when the data of the research consisted of frequencies in discrete categories with independent subjects with data collected at nominal level. Chi-square test of goodness -of- fit told us if there was a statistically significant difference between the observed set of frequencies and expected set of frequencies and was used when we had only one set of variables with the number of levels of categorical variables (response options), hence the degree of freedom was always K-1 and was determined *apriori* not *a posteriori.* The choice of chi-square test of goodness -of- fit was because the study sought to determine whether Employers' perceptions of the core employability skills of Agricultural Education Graduates would differ significantly or otherwise in Colleges of Education in North-Central, Nigeria, where the researcher established whether or not, an observed or actual performance differs from a theoretical standard or expected performance. Chi-square test of goodness -of- fit helped to determine how well the observed frequencies fits the expected theoretical frequencies. This was also in line with Emaikwu (2019) assertion that chi-square was a statistical tool meant to compare observed data with expected one in line with a specific hypothesis.

In taking decision about the research question, any item with a mean rating of 3.00 and above was regarded as Possessed, Important, Competent. On the other hand, any item with a mean rating below 3.00 was regarded as either not possessed, not important, incompetent. The decision rule for rejection or otherwise of hypotheses was based on the p-value and alpha value. A hypothesis of no significant difference was not rejected for any cluster of items whose p-value was equal to or greater than alpha value of 0.05($p \geq 0.05$) while it was rejected for any cluster of items whose p-value was less than alpha value of 0.05 ($p < 0.05$). Chi-square test however, did not provide answer regarding the magnitude (quantum) of relationship hence there was need to confirm how significant every obtained significant result of the hypotheses by calculating the *effect size statistic.* Effect size statistic provides an indication of the magnitude of obtained significant results. Inferences on effect size was such that:

When C value equals to 0.06, it was regarded as small effect size

When C value equals to 0.17, it was regarded as medium effect size

When C value equals to 0.29, it was regarded as large effect size (Pallant, 2011).

3.0 RESULTS

Research Question 1: What are the cognitive, non-cognitive and technical employability skills possessed by Agricultural Education Graduates in Colleges of Education in North-Central, Nigeria?

Table 1:Mean Ratings and Standard Deviation of Respondents on cognitive, non-cognitive and technical Employability Skills Possessed by Agricultural Education Graduates in North Central Nigeria (n= 322)

	Item statement								
	Employability Skills possessed	HP	P	MP	LP	NP	$\bar{X}$	Std	Remarks
	Cognitive Skills								
1	Management skills	160	136	17	4	5	4.37	0.77	Possessed
2	Lifelong learning skills	74	170	61	15	2	3.93	0.81	Possessed
3	Critical analysis skills	118	114	77	11	2	4.04	0.89	Possessed
4	Problem solving skills	97	160	48	15	2	4.04	0.83	Possessed
5	Planning skills	122	116	76	6	2	4.09	0.86	Possessed
6	Decision-making skills	99	144	64	13	2	4.01	0.85	Possessed
7	Analytical skills	135	120	52	13	2	4.16	0.88	Possessed
8	Research skills	130	127	59	4	2	4.18	0.81	Possessed
	Non Cognitive Skills								
9	Adaptability skills	104	170	42	4	2	4.15	0.73	Possessed
10	Creativity skills	91	155	65	9	2	4.01	0.81	Possessed
11	Interpersonal skills	122	97	87	13	3	4.00	0.95	Possessed
12	Language skills	70	147	86	17	2	3.83	0.85	Possessed
13	Leadership skills	110	72	135	3	2	3.89	0.92	Possessed
14	Self- control skills	91	160	56	13	2	4.01	0.82	Possessed
15	Transferable skills	104	103	102	10	3	3.92	0.92	Possessed
16	Emotional skills	66	180	61	10	5	3.91	0.81	Possessed
17	Initiatives skills	123	133	61	3	2	4.16	0.80	Possessed
18	Competency skills	102	117	98	3	2	3.98	0.85	Possessed
19	Communication skills	120	118	74	8	2	4.07	0.87	Possessed
	Technical Skills								
20	IT and Computer literacy	131	110	66	12	3	4.10	0.91	Possessed
	Grand Total	2169	2649	1387	186	49	80.85	16.94	
	Grand Mean and std	109	132	69	09	03	4.04	0.85	

Key: n= number of respondents, HP=highly possessed, P=possessed, MP=moderately possessed, LP= least possessed, NP= not possessed,$\bar{X}$= mean of respondents and Std = Standard deviation of respondents

Data presented in Table 1 revealed that all the20 items on cognitive, non-cognitive and technical employability skills possessed by Agricultural Education graduates in North central Nigeria had their mean values that ranged from 3.83 to 4.37, with a cluster mean of 4.04 which was above the cut-off point of mean 3.00 on a five point scale. This result indicates that Agricultural Education graduates possessed all the twenty core employability skills in North central Nigeria.The standard deviation of the items ranged from 0.73 to0.95 with a grand standard deviation of 0.85which indicates that there was less variability in the opinion of the respondents on the core employability skills possessed by Agricultural Education graduates in North-Central, Nigeria.

Hypothesis1: Employers' perceptions of the cognitive, non-cognitive and technical employability skills possessed by Agricultural Education Graduates do not differ significantly in Colleges of Education in North-Central, Nigeria.

The data for testing hypothesis 1 was presented in Table 2.

Table 2: Chi-Square Test of Goodness-of-Fit Analysis of the cognitive, non-cognitive and technical Employability Skills Possessed by Agricultural Education Graduates in North Central Nigeria

Response Options	Fo	Fe	Alpha Level	Df	2α	Asymp. Sig.	C	Remark
Not Possessed	3	64.4						
Least Possessed	9	64.4						
Moderately Possessed	69	64.4	0.05	4	208.373[a]	0.000	0.6268	S, R
Possessed	132	64.4						
Highly Possessed	109	64.4						
Total(N)	322							

Key: N= Total number of respondents, Fo =Observed frequency, Fe= Expected frequency Df = degree of freedom, 2α = chi-square calculated value, Asymp.Sig. = Asymptotic significance value(P-value) under Chi-square test of goodness-o-f fit analysis, C= coefficient of contingency (effect size), S= Significant, R= rejected

The result presented in Table 2 showed a p-value of .000 which was less than the alpha value of 0.05 at 4 degrees of freedom (i.e .000 < .05; df = 4). This reveals that the test was statistically significant, indicating that Employers' perceptions of the cognitive, non-cognitive and technical employability skills possessed by Agricultural Education Graduates differs significantly in Colleges of Education in North-Central, Nigeria Therefore, the null hypothesis, was rejected.

The significant result obtained was subjected to coefficient of contingency to establish the magnitude of the significant result. The analysis yielded coefficient of contingency of 0.6268 which was regarded as a large effect size and which when expressed in percentage was equal to 62.68 %.

Research Question 2: What are the employers' perceptions of the characteristics of cognitive, non-cognitive and technical employability skills of Agricultural Education Graduates in Colleges of Education in North-Central, Nigeria?

Table 3:Mean Ratings and Standard Deviation of Respondents on Employer's Perception of Characteristics of cognitive, non-cognitive and technical Employability Skills of Agricultural Education Graduates in North Central Nigeria (n= 322)

	Employability skills	VI	I	FI	LI	NI	X	STD	Remark
	Cognitive Skills								
21	Self-management skills	120	169	22	8	3	4.23	0.76	Important
22	Goal setting skills	127	130	55	3	7	4.14	0.88	Important
23	Understanding skills	105	118	91	4	4	3.98	0.88	Important
24	Enterprise skills	95	156	63	6	2	4.04	0.79	Important
25	research skills	131	97	76	14	4	4.05	0.96	Important
26	Visioning skills	106	161	46	7	2	4.12	0.77	Important
27	Critical analysis skills	113	134	62	10	3	4.07	0.87	Important
28	Management skills	114	153	47	5	3	4.15	0.79	Important
	Non Cognitive Skills								
29	Application of concepts	95	141	70	14	2	3.97	0.86	Important
30	Emotional skills	96	130	80	12	4	3.94	0.89	Important
31	Willingness to learn	95	130	82	13	2	3.94	0.87	Important
32	Personal presentation skills	97	150	60	12	3	4.01	0.85	Important
33	Leadership skills	121	120	72	5	4	4.08	0.88	Important
34	Written communication	95	158	56	10	3	4.03	0.82	Important
35	Intelligence skills	90	156	70	3	3	4.02	0.79	Important
36	English Language proficiency skills	100	140	73	7	2	4.02	0.83	Important
37	Ability to work cross-culturally	110	163	41	4	4	4.15	0.78	Important
38	Applying subject understanding	119	110	83	7	3	4.04	0.89	Important
39	Listening skills	114	132	67	6	3	4.08	0.85	Important
	Technical Skills								
40	Computer literacy	127	143	47	3	2	4.21	0.77	Important
	Grand Total	2170	279	126	153	63	81.27	16.78	Important
	Grand mean and std	108	140	63	8	3	4.06	0.84	Important

Key: n= number of respondents, VI=very important, I=important, FI=fairly important, LI= least important, NI= not important,$\bar{X}$= mean of respondents and Std = Standard deviation of respondents

Data presented in Table 3 revealed that all the 20 items on the Employers' Perceptions of the characteristics of the cognitive, non-cognitive and technical employability skills of Agricultural Education Graduates in North Central Nigeria had their mean values that ranged from 3.94 to 4.23, with a cluster mean of 4.06 which was above the cut-off point of mean 3.00 on a five point scale. This result indicated that all the twenty characteristics of cognitive, non-cognitive and technical employability skills of Agricultural Education graduates were peceived by employers and administrators as important in colleges of education in North central, Nigeria.The standard deviation of the items ranged from 0.76 to 0.96 with a grand standard deviation of 0.84 which indicates that there was less variability in the opinion of the respondents on the characteristics of the cognitive, non-cognitive and technical employability skills of Agricultural Education graduates in colleges of education in north central, Nigeria.

Hypothesis 2*:* Employers' perceptions of the characteristics of cognitive, non-cognitive and technical employability skills of Agricultural Education Graduates do not differ significantly in Colleges of Education in North-Central, Nigeria.

The data for testing hypothesis 2 was presented in Table 4.

Table 4: Chi-Square Test of Goodness-of-Fit Analysis of the Characteristics of cognitive, non-cognitive and technical Employability Skills of Agricultural Education Graduates in North Central Nigeria

Response Options	Fo	Fe	Alpha Level	Df	2α	Asymp. Sig.	C	Remark
Not Important	3	64.4						
Least Important	8	64.4						
Fairly Important	63	64.4	0.05	4	226.230[a]	0.000	0.6424	S, R
Important	140	64.4						
Very Important	108	64.4						
Total(N)	322							

Key: N= Total number of respondents, Fo =Observed frequency, Fe= Expected frequency Df = degree of freedom, 2α = chi-square calculated value, Asymp.Sig. = Asymptotic significance value(P-value) under Chi-square test of goodness-o-f fit analysis, C= coefficient of contingency (effect size), S= Significant, R= rejected

The result presented in Table 4 showed a p-value of .000 which was less than the alpha value of 0.05 at 4 degrees of freedom (i.e .000 < .05; df = 4). This reveals that the test was statistically significant, indicating that employers' perceptions of the characteristics of cognitive, non-cognitive and technical employability skills of Agricultural Education Graduates differs significantly in Colleges of Education in North-Central, Nigeria Therefore, the null hypothesis, was rejected. The significant result obtained was subjected to coefficient of contingency to establish the magnitude of the significant result. The analysis yielded coefficient of contingency of 0.6424 which was regarded as a large effect size and which when expressed in percentage is equal to 64.24 %.

Research Question 3: What are the employers' perceptions of the cognitive, non-cognitive and technical employability skills competence level of Agricultural Education Graduates in Colleges of Education in North-Central, Nigeria?

Table 5:Mean Ratings and Standard Deviation of Respondents on Employer's Perception of Cognitive, Non-cognitive and Technical Employability Skills Competence Level of Agricultural Education Graduates in North Central Nigeria (n= 322)

			C	M C	L C	NC	X	STD	Remarks
	Competent levels								
	Cognitive Skills								
41	Critical thinking skills	176	109	30	2	5	4.39	0.81	Competent
42	Research skills	136	126	42	3	2	4.22	0.79	Competent
43	Identifying problems	98	126	83	11	4	3.94	0.90	Competent
44	Ability to present ideas with confidence and effectiveness	81	131	94	14	2	3.85	0.87	Competent
	Non Cognitive Skills								
45	Maintaining a positive attitude	93	124	85	15	5	3.89	0.93	Competent
46	Inter-personal skills	101	167	45	6	3	4.11	0.77	Competent
47	Intra-personal skills	98	110	106	4	4	3.91	0.89	Competent
48	Ability to resolve conflicts	85	145	71	17	4	3.9	0.89	Competent
49	Intercultural understanding	92	138	68	18	6	3.91	0.93	Competent
50	Communicating ideas verbally to group	76	179	58	7	2	3.99	0.75	Competent
51	Organizational skills	110	108	91	10	3	3.97	0.91	Competent
52	Coordinating skills	68	156	86	8	4	3.86	0.82	Competent
53	Ability to work independently	102	123	89	6	2	3.98	0.85	Competent
54	Adapting to situations of changes	93	156	62	9	2	4.02	0.81	Competent

55	Self-motivation skills	90	130	84	11	7	3.89	0.93	Competent
	Technical Skills								Competent
56	Keeping up to date on development in the field	127	110	72	7	6	4.07	0.93	Competent
57	Risk-taking and enterprise	107	128	78	6	3	4.02	0.86	Competent
58	Information skills	80	170	62	7	3	3.98	0.78	Competent
59	ICT skills	102	125	80	11	4	3.96	0,90	Competent
60	Evaluating skills	114	133	58	13	4	4.06	0.90	Competent
	Grand Total	2029	2694	1444	185	75	79.92	17.22	Competent
	Grand Mean and STD	102	135	72	09	04	4.00	0.86	Competent

Key: n= number of respondents, HC =highly competent, C= competent, MC=moderately competent, SC= slightly competent, NC= competent, $\bar{X}$= mean of respondents and Std = Standard deviation of respondents

Data presented in Table 5 revealed that all the 20 items on the Employers' Perceptions of cognitive, non-cognitive and technical employability skills competence level of Agricultural Education Graduates in North Central Nigeria had their mean values that ranged from 3.94 to 4.23, with a cluster mean of 4.06 which was above the cut-off point of mean 3.00 on a five point scale. This result indicated that all the twenty cognitive, non-cognitive and technical employability skills of Agricultural Education graduates were peceived by employers and Administrators as competent in Colleges of Education in North-central, Nigeria.The standard deviation of the items ranged from 0.76 to 0.96 with a grand standard deviation of 0.84 which indicates that there was less variability in the opinion of the respondents on the cognitive, non-cognitive and technical employability skills competence level of Agricultural Education graduates in Colleges of Education in North- central, Nigeria.

Hypothesis 3: Employers' perceptions of cognitive, non-cognitive and technical employability skills competence level of Agricultural Education Graduates do not differ significantly in Colleges of Education in North-Central, Nigeria. The data for testing hypothesis 2 was presented in Table 6.

Table 6: Chi-Square Test of Goodness-of-Fit Analysis of cognitive, non-cognitive and technical Employability Skills Competence Level of Agricultural Education Graduates in North Central, Nigeria

Response Options	Fo	Fe	Alpha Level	Df	2α	Asymp. Sig.	C	Remark
Not Competent	4	64.4						
Slightly Competent	9	64.4						
Moderately Competent	72	64.4	0.05	4	204.553[a]	0.000	0.6232	S, R
Competent	135	64.4						
Highly Competent	102	64.4						
Total(N)	322							

Key: N= Total number of respondents, Fo =Observed frequency, Fe= Expected frequency Df = degree of freedom, 2α = chi-square calculated value, Asymp.Sig. = Asymptotic significance value(P-value) under Chi-square test of goodness-o-f fit analysis, C= coefficient of contingency (effect size), S= Significant, R= rejected

The result presented in Table 6 showed a p-value of .000 which was less than the alpha value of 0.05 at 4 degrees of freedom (i.e .000 < .05; df = 4). This revealed that the test was statistically significant, indicating that employers' perceptions of the cognitive, non-cognitive and technical employability skills competence level of Agricultural Education Graduates differs significantly in Colleges of Education in North-Central, Nigeria Therefore, the null hypothesis, was rejected.

The significant result obtained was subjected to coefficient of contingency to establish the magnitude of the significant result. The analysis yielded coefficient of contingency of 0.6232 which was regarded as a large effect size and which when expressed in percentage was equal to 62.32%.

6. Discussion of Findings

The findings of the study were discussed as follows:

The results of the study in Table 1 showed that Agricultural Education graduates possessed twenty cognitive, non-cognitive and technical employability skills in North central, Nigeria. Such cognitve employability skills were: Management skills, Lifelong learning skills , Critical analysis skills, Problem solving skills, Planning skills, Decision-making skills, Analytical skills and Research skills; While the non –cognitive were Adaptability skills, Creativity skills, Interpersonal skills, Language skills, Leadership skills, Self- control skills, Transferable skills, Emotional skills, Initiatives skills, Competency skills and Communication skills and Technical skills were IT and Computer literacy.

The results from the corresponding hypothesis on Table 2 revealed that employers' perceptions of the employability skills possessed by Agricultural Education Graduates differs significantly in Colleges of Education in North-Central, Nigeria. This is consistent with Ekpoh (2019) who found that the level of acquisition of employability competence of students were significantly low. Such employability competence according to the author were: team work skills, planning skills, information and communication technology skills, problem solving skills, analytical skills, leadership skills, critical thinking, and initiative skills among others. Similarly, Attamah and Dauda

(2017) found that holders of NCE certificates in electrical electronics technology in Nigerian public and private organizations have only possessed 11 out of 23 applied skills. The findings of this study also agrees with the findings of Adebakin, Ajadi and Subair (2015) that skills required of university graduates as perceived by employers were analytic and problem solving (98%), decision – making (98.3%), risk management (96.7%), leadership (98%), information and communication (97.7%), team-work (99%), official communication (97.7), and English proficiency and literacy skills (97%) while skills possessed by university graduates were English proficiency and literacy (58%) and information and communication skills (53%).

The result of the study in Table 3 revealed that all the twenty characteristics of cognitive,non-cognitive and technical employability skills of Agricultural Education graduates were peceived by employers and administrators as important in Colleges of education in North-central, Nigeria. Such important employability skills charateristics include: cognitive skills were Self-management skills, Goal setting skills, Understanding skills, Enterprise skills, research skills ,visioning skills, Critical analysis skills and Management skills. Non-cognitive were, Application of concepts, Emotional skills, Willingness to learn, Personal, presentation skills, Leadership skills, Written communication, Intelligence skills, English Language proficiency skills, Ability to work cross-culturally, Applying subject understanding, Listening skills, Technical skills and Computer literacy

This result of the corresponding hypothesis on Table 4, however revealed that employers' perceptions of the characteristics of employability skills of Agricultural Education Graduates differs significantly in Colleges of Education in North-Central, Nigeria. This finding was in agreement with the findings of Made, Suarta, Ketut, Sudhana and Hariyanti (2017) who found that thirteen important employability skills attributes were required by graduates in entering the workforce. The authors revealed further that communication skills, problem-solving, decision-making skills, and teamwork skills are the attributes of employability skills with highest importance level.

The result of this study was also in consonance with Oluwakemi and Adeolu (2017), which found that being good with numbers, good reading/writing skills, foreign language, self-confidence, computer skills, sector specific skills, communication skills, professional certification, knowledge about other fields, analytical and problem solving skills, ability to adapt and act in new situations, decision making skills, team working skills, planning and organizational skills were important employability variables employers took into consideration before recruiting Nigerian graduates Similarly, Mohammed, Saad and Izaidin (2014), found that the five most important employability skills as perceived by government-linked companies (GLCs) include: the ability of the graduates to undertake problem identification, apply problem-solving, formulations and solutions as the most important employability skill, followed by the ability to use techniques, skills and modern engineering/ICT tools, Next was the ability to present ideas with confidence and effectiveness and the ability to function effectively as an individual and in a group, and the ability to acquire and apply knowledge of engineering/ICT fundamentals and so on.

The results of the study in Table 5 revealed that all the twenty cognitive, non-cognitive and technical employability skills of Agricultural Education graduates were peceived by employers and administrators as competent in Colleges of education in North-central, Nigeria. Such competent employability skills were: Critical thinking skills , Research skills, Identifying problems, Ability to

present ideas with confidence and effectiveness; the non-cognitive were maintaining a positive attitude, inter-personal skills, intra-personal skills, ability to resolve conflicts, intercultural understanding, communicating ideas verbally to group, organizational skills, coordinating skills, ability to work independently, adapting to situations of changes, self-motivation skills and technical skills were keeping up to date on development in the field, risk-taking and enterprise, information skills, ICT skills and evaluating skills. The result of the corresponding hypothesis on Table 4, showed that employability skills competence level of Agricultural Education Graduates differs significantly in Colleges of Education in North-Central, Nigeria. The findings were in harmony with Abelha, Fernandes, Mesquita, Seabra and Ferreira-Oliveira (2020), that graduate employability and competence development in Higher Education, was relatively high in Europe. This study however disagrees with Wakelin, Ukpere and Spowart (2019) who revealed that graduates were incompetent and hence lacked tourism-specific information technology skills, had insufficient knowledge of the tourism industry and operational skills, and was not sure what was expected of them. These findings provided proper insight for the researchers to understand employability skills and helped to suggest the steps to be taken by the higher education institutions to address the lack of employability skills and make the students ready to face the job market.

7. Conclusion

The society and curriculum expect that Agricultural Education graduates should be able to demonstrate practical productive core skills in productive agriculture. This is because agriculture is a vocation that requires the development of both the cognitive, affective and particularly pycho-motor or technical skills in potential farmers (students). To achieve the above, the curriculum contents of the programme in Colleges of Education in Nigeria are prepared towards the development of psycho-productive, utilitarian (employability) skills. Despite curricular intervention, the researcher wondered why there are still ill-equipped Agricultural Education graduates found around the street unemployed, while few who had jobs were found to be ineffective and inefficient in discharging their duties and responsibilities, thereby unable to advance on their jobs. This was why the study was carried out to assess the employers' perceptions of the employability (cognitive, non- cognitive and technical) skills of Agricultural Education graduates in Colleges of Education in North-Central, Nigeria. The assessment process revealed however that the graduates in the study area possessed, important and competent level of Agricultural Education Graduates employability skills.

8. Recommendations

i. Based on the findings of the study, the following recommendations have been made**:** The identified core employability skills should available to Agricultural Education lecturers by school administrators for utilization in teaching and learning.

ii. Agricultural Education graduates at all levels should be encouraged to be involved in practical entrepreneurial skills development endeavors by teachers and stake holders.

iii. The National Commission for colleges of Education should constantly review the Agricultural Education curriculum in Colleges of Education to reflect courses that will teach the required key core Employability skills needed by employers.

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