International Journal of Current Research and Applied Studies, (IJCRAS)

ISSN: 2583-6781

available at https://ijcras.com/

Volume 4 Issue 5 Sep-Oct 2025, Page 01-15

To cite this article: Usman, I. A., Prof. I. Audu. and K, Waziri. (2025). ASSESSMENT OF AGRICULTURAL EDUCATION TEACHERS' COMPETENCE IN INFORMATION AND COMMUNICATION TECHNOLOGY (ICTS) UTILIZATION FOR EFFECTIVE TEACHING IN COLLEGES OF EDUCATION NORTHEAST NIGERIA, International Journal of Current Research and Applied Studies (IJCRAS) 4 (5): Article No. 131, Sub Id 235

ASSESSMENT OF AGRICULTURAL EDUCATION TEACHERS' COMPETENCE IN INFORMATION AND COMMUNICATION TECHNOLOGY (ICTS) UTILIZATION FOR EFFECTIVE TEACHING IN COLLEGES OF EDUCATION NORTHEAST NIGERIA.

Usman, I. A., Prof. I. Audu. and K, Waziri.

Department of Centre for Distance Learning, Modibbo Adama University Yola, Adamawa State

Department of Vocational Education, Modibbo Adama University Yola, Adamawa State

DOI : https://doi.org/10.61646/IJCRAS.vol.4.issue5.131

ABSTRACT

The study was carried out to Assess Agricultural Education Lecturers Competence in Information and Communications Technology (ICTs) Utilization for Effective Teaching in Colleges of Education in North-East Nigeria. Two specific objectives guided the study, two research question were raised and answered. The study employed descriptive and correlation survey research design. The sample size of the study consists of 217 male and female agricultural Education Lecturers. A structured questionnaire titled Information and Communication Technology Skills Questionnaire (ICTSQ) the questionnaire items were based on a five Likert like moderated scale and was subjected to content validity check for appropriateness by three experts. A reliability of the instrument was established from the result obtained from a trial test, the data from the trial test was analyzed using Cronbach Alpha method. The method of data analysis used was both descriptive and inferential statistics, descriptive statistics of mean and standard deviation and real limits of number was used to answer research questions while linear regression analysis were used for to test the null hypothesis at 0.05 level of significant. The findings of this study reveled that; Agricultural Education Lecturers have high level of ICT competence with a cluster mean of 3.69 and standard deviation of 1.17. The level of ICT utilization by Agricultural Education Lecturers also indicates high with a cluster mean of 3.92 and standard deviation of 1.08.

however, its recommendations are; institutions must invest in regular ICT training and capacity-building programs for lectures, ensuring they possess the necessary digital competencies. More ICT Agricultural Education Program software should be subscripted for Agricultural Education Lecturers to utilize when teaching.

Keywords: Agricultural Education, ICT Competence, Lecturers' Digital Skills, ICT Utilization in Teaching and Colleges of Education, Nigeria

INTRODUCTION

Assessment is the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of their educational experiences; the process culminates when assessment results are used to improve ...Assessment is the systematic process of collecting empirical data (knowledge, skill, attitudes, and beliefs), reviewing (identify weaknesses and strengths), and using the empirical data for the purpose of improving learning and development.

In education, the term assessment refers to the wide variety of methods or tools that educators use to evaluate, measure, and document the academic readiness, learning progress, skill acquisition, or educational needs of students. Assessment involves the use of empirical data on student learning to refine programs and improve student learning. (Ahmed 2016). Assessment is the process of gathering and discussing information from multiple and diverse sources to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of their educational experiences; the process culminates when assessment results are used to improve subsequent learning, (Egoma, 2012).

Assessment is the systematic basis for making inferences about the learning and development of students. It is the process of defining, selecting, designing, collecting, analyzing, interpreting, and using the information to increase students' learning and development, (Egoma, 2012). Assessment is the systematic collection, review, and use of information about professional education, undertaken to improve student learning and development (Karami, 2013). Assessment is usually carried out by a professional educator (teacher) to have an idea of what can kind of remedy to apply and also to understand the issues at hand from the sources. The core purpose of teacher assessment should be to strengthen the knowledge, skills, dispositions, and classroom practices of professional educators. This goal serves to promote student growth and learning while also inspiring great teachers to remain in the classroom, also to encourage the use of modern technology in other to meet up with the global standard of teaching.

For every teacher to meet up with the global standard of teaching and also to remain relevant in teaching he/she must adopt the use of modern technology such as information and communication technology (ICT) in teaching and learning. Hatlevic (2012) described modern technologies such as information and communication technologies as essential tools in any educational system, they have the potential of being

used to meet the learning needs of individual students, promote equality of educational opportunities; offer high-quality learning materials, increase self-efficacy and independence of learning among students, and improve teachers' professional development.

The most fascinating of all the technological innovations of the 2l century is information and communication technology (ICT). Oye, Shallsuku and A-lahad (2012) defined ICT as forms of technology that are used to transmit, store, create, share or exchange information. Similarly, Tamilselvan, Sivakumar and Sevukan,. (2012) as the use and integration of telecommunication devices which gives the users access to create, store, transmit, and manipulate information. It is a broad field that encompasses the use of information and technological devices such as laptops, computers, the internet, and various the software which helps in the processing and communication of information (Freeman & Hasnaoui, 2010). In the context of this study, ICT are electronic devices that enable access to information as well as aid the communication of information. Technology in today's world has increasingly become a vital element for firms to compete and develop.

It is partly in response to this that the Federal Republic of Nigeria (FRN, 2004a). Reiterated her commitment to 'overhauling' the educational sector considering the relevance of ICT in the rapid development of this country. It specifically stressed that education in Nigeria in this millennium is seriously viewed as an instrument "par excellence" for effecting national development. Consequently, in an attempt to cope with the recognized dynamics of social change and the demands on education, the Federal Government of Nigeria, reviewed its National Policy on Education, to be in rhythm with a new Nigeria National Policy on Information Technology (NNPIT) (FRN, 2004). The vision statement of the policy on ICT is to make Nigeria an ICT-capable country in Africa and a key player in the information society, using ICT as an engine for sustainable development and global competitiveness. Similarly, the mission statement of the policy is to use Information Technology for education, creation of wealth, poverty eradication, job creation, and global competitiveness. One of the basic objectives of the Nigeria National Policy on Information Technology is to integrate ICT into the mainstream of education and training. However, after more than half a decade Nigeria doesn't seem to realize the potential effect of this modern technology, especially on education.

The expansion of technology across a wide range of areas including educational institutions, schools, and universities came with the main intention of improving the teaching and learning environment (Hert, 2016). According to Ugboaja (2011) and Ohakwue, (2021), the implementation of ICT in education was to transform the teaching and learning process from the traditional teacher-centered to a learner-centered approach with the active participation of the learner. These researchers emphasized that the teacher's job is to organize the classroom and give students more opportunities and control over learning. ICT has brought changes to the life of many people in different aspects with consideration to various disciplines like medicine, tourism, travel, business, law, banking, engineering and architecture.

Agricultural education according to Onu (2019) emphasizes skill development in all aspects of agricultural business such as planning, management, safety finance and leadership. Kidane (2015) defined agricultural education as a field of vocational and technical education that deals with the teaching, training and equipping students with the necessary skills needed to succeed in agriculture. Integrating ICT into the delivery process of agricultural education can increase the effectiveness and also broaden knowledge and ensure retention of skills. Jyoti (2013) emphasized that agricultural education requires the use of ICT to find, store, explore, access and analyze creatively. The use of ICT in teaching agricultural education in colleges of education may give students the opportunity to put into practice the knowledge gotten from the information they accessed through technologies. This will make learning to be active and produce professionals in the field of agricultural education. According to McFarlane and Sakellariou (2010), the use of ICT in agricultural education will enable lecturers to expose students to those practical aspects that will not be possible in the classroom. New Media Consortium (2007) states that present day education system insists on research, critical thinking and evaluation skills since students have access to large variety of sources to get information. Agricultural education is a practical and dynamic course. Its scope or extent cannot be limited to a specific area of study. It is extremely inter-disciplinary and the concept as well as the approaches of one domain is to be interlinked with the other domain, for instance, pest management cannot be understood without the knowledge of physiology of a crop which goes in hand with the cultivation practices and soil fertility which in turn is determined by the social or economic characteristics of a farmer. Field trials in agricultural education are as important as field visits and field documentations. It is more important that trials in laboratory get transferred to the field (Anandaraja et.al, 2015). In this study, agricultural education is the training of students to equip them with the necessary technical skills needed to succeed in a given agricultural field. This training may be effective with the use of technologies prevalent in the 21st century.

College of Education is a tertiary institution that offers programs in education, typically leading to the award of the Nigeria Certificate in Education (NCE). The NCE is a professional teaching qualification that enables graduate to teach in primary and secondary schools. The National Commission for Colleges of Education (NCCE, 2012) minimum standard document outlined the following ICT related facilities as essential for running Nigerian Certificate of Education (NCE) programs. Such facilities include, video recorder, video player, slide projector, overhead projector, film projector, magnetic board, public address system, colour television set cameras, voltage stabilizer and printing machine. Other ICT include, e-mail, internet, worldwide web, multimedia personal computer, laptop, notebook, application software such as world processing, spread sheets, Power Point simulation and speed recognition, multimedia projector, computer database, digital libraries, hypermedia, hypertext resources computer mediated conferencing-video, video text, tele-text, interactive video disk and audio conferencing. It is the responsibility of lecturers in various disciplines including Agricultural Education to use such facilities. However, utilization of such ICT facilities requires competence on the part of the lecturers. A lecturer, according to Bakar and Owodunni (2011) is an individual who have been trained to teach courses to students in a Colleges of Education. A lecturer, in this study, refers to an individual who deliver instructions to student in agricultural courses in the COEs. According to Ajogwu (2014), a lecturer is a teaching staff of colleges

of education that is assigned with the responsibility of ensuring that the objective of establishing college of education is achieved. The are primarily responsible for teaching, research and promoting the objectives of colleges of education through graduation of teachers for primary, preprimary and post primary schools. These lecturers comprise both male and female with attest two- or three-years teaching experience. The lecturer most all with the teacher registration council of Nigeria.

Competence generally refers to the ability of integrating and apply knowledge, skills and psychological factors to perform successfully within a specific domain. Knut (1990) competence refers to a person broad capability, appropriately with future and unforeseen situations, competence encompasses not only technical skills but also the ability to apply knowledge in complex, and unpredictable situations. In the educational contexts, competence is often linked to the acquisition of specific skills, knowledge, and attitudes. The concept of competence can be ambiguous, and its meaning can vary depending on the context and cultural background. Some researchers distinguish between two senses of competence, a transitive sense, which refers to a person's formal qualifications and an intransitive sense, which expresses a value judgment about a person's abilities. In business contexts, core competence is sens as a pool of exceptional skills, strategies or technologies that differentiate a leader from an average player in the industry, this perspective emphasizes the importance of distinctive capabilities and excellence in achieving competitive advantage. Overall, the concept of competence is complex and multifaceted, encompassing various dimensions, including technical skills, adaptability, critical thinking, and professionalism (Hamel 2022). According to Asogwa et. Al (2016) competence refers to the knowledge, sills and attitude possessed by individual for effective delivery of instruction both theatrically and practical. It is believed that the competence of lecture has great influence and the extent to which the discharge their duties in the colleges.

1.3 Purpose of the Study

The main purpose of the study is the assessment of agricultural teachers in using ICT for effective teaching in Colleges of Education in North-East Nigeria. Specifically, the study seeks to;

1. determine the level of ICT skills possessed by Agricultural Education Lecturers for effective teaching in Colleges of Education.
2. determine the level to which Agricultural Education Lecturers integrate ICT skills for effective teaching in the colleges.

1.4 Research Questions

The following are the research question for the study;

1. What is the level of ICT skills possessed by Agricultural Education Lecturers in Colleges of Education in North-East Nigeria?
2. What is the level to which Agricultural Education Lecturers integrate ICT skills for effective teaching in Colleges of Education in North-East, Nigeria?

1.5 Research Hypothesis

The following null hypothesis were tested at 0.05 significance level.

3. **Ho1** There is no significant relationship between the mean responses of ICT skill possessed by Agricultural Education Lecturers and effective teaching in Colleges of Education in the North-East, Nigeria.
4. **H02** There is no significant relationship between the mean responses of the extent of integrating ICT skills by Agricultural Education Lecturers and effective teaching in Colleges of Education in the North-East Nigeria.

Theoretical Framework

The new views on learning process and shift to students –centred learning have emerged based on cognitive learning research and the confluence of several theories that have informed man's understanding of the nature and context of learning. Some of the most prominent theories include: socio-cultural theory (based on Vygostky's inter-subjectiveness and Zone of Proximal Development, ZPD) Constructivism and theory of Behaviorism.

METHODOLOGY

The study adopted a descriptive and correlational survey research design. The design was suitable for this study to enable the researcher to determine the assessment of agricultural education teachers' competence in information and communication technology (ICTs) utilization for effective teaching in colleges of education northeast Nigeria. The population of this study consist of 494 Agricultural Education Lecturers, which consist of both male and female teachers from eleven Colleges of Education in the North-east Nigeria. The Sample Size of this study consist of 217 Males and Female Agricultural Education Lecturers teaching in College of Education in the North East. The Sample Size was determined by using Krejcie and Morgan Table for determining Sample Size. Out of this Sample, 185 were Males while the remaining 32 were Females. The instrument for data collection that was used for this study is a structured questionnaire administered to agricultural teachers. This questionnaire was tagged ICT Skills Questionnaire (ICTSQ). The questionnaire comprised of two parts; parts. Part, one solicits personal information of the respondents. Part two seek responses on ICTSQ area comprised of five sections as follows. Section A provide questionnaire items on the level of ICT skills possessed by Agricultural teachers for effective teaching in colleges of education and it has 39 items. Section B was to determine the extent to which agricultural teachers integrate ICT skills for effective teaching in colleges of education and it contains 28 items on the questionnaire. The questionnaire items were based on a five Likert like moderated scale of very High Level (5), High Level (4), Moderate Level (3) Low Level (2) and very Low Level (1) for research question 1, 2 and 4. While research question 3 Most Frequent (5), Frequent (4), Moderately Frequent (3), Slight frequent (SF) and Not Frequent (NF) and research question 5 is Most Effective (5), Effective (4), Moderately Effective (3), Slightly Effective (2) and Not Effective (1). Out of these scales an average value of 3.0 will be used as a benchmark for agree or disagree with the items of the research questions. The validation of the instrument was a content validation which validates check for appropriateness of the questionnaire. A trial test was conducted in Federal College of Education Zaria using 20 Agricultural Education Lecturers, the data obtained from the trial test was analysed using Cronbach Alpha method. The method for data analysis was analysed using both descriptive and inferential

statistics. The descriptive statistics of mean and standard deviation was used to answer all the research questions. While, Linear regression analysis were used to test the null hypothesis at 0.05 level of significant, where the moderate level is 2.50 -3.49, while less than that is said to be low level, for the hypothesis if the p-value is less than 0.05 level of significance, the hypothesis is rejected and where otherwise is accepted.

Research Question 1. What is the level of ICT Competence possessed by Agricultural Education Lecturers for effective teaching in colleges of education in North-east Nigeria?

Table 1. Descriptive statistics of the level of ICT competence possessed by Agricultural Lecturers for effective teaching in Colleges of Education in North-east Nigeria. N=217

S/N	Mean	SD Remarks
1. Word processing	3.34	1.59 M
2. Use of Spreadsheet	3.22	0.81 M
3. Graphics application bra	3.13	1.46 M
4. Creating File Folders	2.99	1.52 M
5. Creating WhatsApp group	4.05	1.03 H
6. Using Electronic mail for instructional purposes	4.39	0.96 H
7. Exploring the Internet for educational materials for research and teaching in agricultural education	3.90	1.17 H
8. Delivering online Instructional materials	3.00	1.50 M
9. Power-point	2.95	1.69 M
10. Demonstrating the use of authoring software to enhance the delivery of agricultural education in colleges of education	4.67	0.81 H
11. Creating Bloggers for group Instructions	2.62	1.45 M
12. Utilizing other e-learning resources such as television and tape recorders for teaching and learning of special topics in agricultural education.	4.64	0.53 H

13. Use light pen to select information on the screen.	3.91	1.16 H
14. Use mouse to control motion of an on-screen pointer or cursor.	4.39	0.96 H
15. Use joy stick to navigate a cursor.	3.88	1.16 H
16. Use the keyboard to give command to the computer.	2.87	1.47 M
17. Use scanners to scan information or material.	2.95	1.69 M
18. Use modem to connect computers to television or telephone line for demonstration.	4.67	0.81 H
19. Select the right printer to print teaching materials	2.62	1.45 M
20. Use the productivity software tools to enhance the delivery of agricultural education at the COE level	4.64	0.53 H
21. Install application software on the computer.	3.91	1.16 H
22. Update application software such as antivirus	4.39	0.96 H
23. Design web pages for educational purposes	3.88	1.16 H
24. Effectively browse the web for teaching in agricultural education	2.92	1.49 M
25. Use of slide show application to create multimedia presentation	4.64	0.53 H
26. Start browser to request for files on specific materials for instruction.	3.74	1.26 H
27. Conduct online research using data bases to explore the area of agricultural education	3.24	1.51 M
28. Conduct an internet-based video phone session to link researchers in the area of agricultural education across the globe.	3.84	1.18 H
Cluster Mean	3.69	1.17

Descriptive statistic revealed in Table 1, shows the mean rating of sixteen items indicate high level of ICT competence possessed by Agricultural Education Lecturers for effective teaching, while twelve items indicate moderate level with a cluster mean of 3,69 and standard deviation of 1.17.

Research Question 2. What is the level to which agricultural teachers integrate ICT skills for effective

teaching in colleges of education in North-east, Nigeria?

Table 2. Descriptive statistics of the level to which agricultural teachers integrate ICT skills for effective teaching in colleges of education in North-east, Nigeria. N=217

S/N	Mean	SD Remarks
1. Word processing	2.87	1.02 M
2. Use of Spreadsheet	3.74	1.26 H
3. Graphics application	4.01	1.22 H
4. Creating File Folders	4.05	0.90 H
5. Creating WhatsApp group	4.59	0.75
6. Using Electronic mail for instructional purposes	3.31	1.36 M
7. Exploring the Internet for educational materials for research and teaching in agricultural education	4.67	0.81 H
8. Delivering online Instructional materials	3.13	1.46 M
9. Power-point	4.64	0.53 H
10. Demonstrating the use of authoring software to enhance the delivery of agricultural education in colleges of education	4.05	1.03 H
11. Creating Bloggers for group Instructions	4.39	0.96 H
12. Utilizing other e-learning resources such as television and tape recorders for teaching and learning of special topics in agricultural education.	3.90	1.17 H
13. Use light pen to select information on the screen.	3.03	1.50 M
14. Use mouse to control motion of an on-screen pointer or cursor.	4.05	1.03 H
15. Use joy stick to navigate a cursor.	3.13	1.73 M
16. Use the keyboard to give command to the computer.	4.67	0.81 H

17. Use scanners to scan information or material.	3.13	1.46 M
18. Use modem to connect computers to television or telephone line for demonstration.	4.64	0.53 H
19. Select the right printer to print teaching materials	4.05	1.03 H
20. Use the productivity software tools to enhance the delivery of agricultural education at the COE level	4.39	0.96 H
21. Install application software on the computer.	3.00	1.50 M
22. Update application software such as antivirus	4.39	0.96 H
23. Design web pages for educational purposes	3.13	1.73 M
24. Effectively browse the web for teaching in agricultural education	4.67	0.81 H
25. Use of slide show application to create multimedia presentation	3.13	1.46 M
26. Start browser to request for files on specific materials for instruction.	4.64	0.53 H
27. Conduct online research using data bases to explore the area of agricultural education	4.05	1.03 H
28. Conduct an internet-based video phone session to link researchers in the area of agricultural education across the globe.	4.39	0.96 M
Cluster Mean	3.92	1.08

Descriptive statistic revealed in Table 2 shows that sixteen items indicate high level of integrating ICT skills by Agricultural Education lecturers for effective teaching while ten indicate moderate level with a cluster mean of 3.92 and standard deviation 1,08. This indicates high level of ICT integration of ICT skills by Agricultural Education Lecturers.

HYPOTHESIS ONE

Ho1 There is no significant relationship between ICT competence possessed by Agricultural Education Lecturers and effective teaching in Colleges of Education in the North-East, Nigeria.

Table 3. Regression of relationship between ICT skill possessed by Agricultural Education Lecturers and effective teaching in Colleges of Education in the North-East, Nigeria.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	17448.400	1	17448.400	1298.650	.000[b]
	Residual	2888.697	215	13.436		
	Total	20337.097	216			

a. Dependent Variable: Agricultural Education Lecturers for effective teaching in colleges of education North east Nigeria

b. Predictors: (Constant), Level of ICT Skills Possessed for Effective Teaching

Table 4. Model summary of relationship between ICT skill possessed by Agricultural Education Lecturers and effective teaching in colleges of education in the North-East, Nigeria.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.926[a]	0.85	0.85	3.66

a. Predictors: (Constant), Level of ICT Skills Possessed for Effective Teaching

The linear regression tables in Table 6a and 6b show significant differences between the various R values, $F = 1298.65$ (df 1, 216), $P < 0.05$. Since the computed p-value (0.00) is less than 0.05 level of significance, therefore the null hypothesis is rejected and concluded that, there is significant relationship between ICT skills possessed by Agricultural Education Lecturers and effective teaching in colleges of education in the North-east, Nigeria. Furthermore, the adjusted R-square value (0.85) indicates that, 85% of effective teaching in Colleges of Education in the North-east, Nigeria in this study is accounted for by study ICT skills possessed by Agricultural Education Lecturers.

H02 There is no significant relationship between the extent of integrating ICT skills by Agricultural Education Lecturers and for effective teaching in Colleges of Education in the North-East Nigeria.

Table 5. Regression of relationship between the extent of integrating ICT skills by Agricultural Education Lecturers and for Effective teaching in Colleges of Education in the North-East Nigeria.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16208.514	1	16208.514	844.074	.000[b]
	Residual	4128.583	215	19.203		
	Total	20337.097	216			

a. Dependent Variable: Agricultural Education Lecturers effective teaching in Colleges of Education North east Nigeria

b. Predictors: (Constant), Integration of ICT for Effective Teaching

Table 6. Model summary of relationship between the extent of integrating ICT skills by Agricultural Education Lecturers and Effective teaching in Colleges of Education in the North-East Nigeria.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.893[a]	.797	.796	4.38209

a. Predictors: (Constant), Integration of ICT for Effective Teaching

The linear regression tables in Table 7a and 7b show significant differences between the various R values, $F = 844.074$ (df 1, 216), $P < 0.05$. Since the computed p-value (0.00) is less than 0.05 level of significance, therefore the null hypothesis is rejected and concluded that, there is significant relationship between the extent of integrating ICT skills by Agricultural Education Lecturers and for effective teaching in colleges of education in the North-east Nigeria. Furthermore, the adjusted R-square value (0.79) indicates that, 79% of effective teaching in colleges of education in the North-east, Nigeria in this study is accounted for by the extent of integrating ICT skills by Agricultural Education Lecturers.

FINDINGS OF THE STUDY

The study generated the following findings: -

1. The level of ICT skills possessed by Agricultural Education Lecturers for effective teaching in Colleges of Education in North-east Nigeria is high with cluster mean of 3.69 and standard deviation of 1.17.
2. The level to which Agricultural Education Lecturers utilize ICT skills for effective teaching in Colleges of Education in North-East, Nigeria is high with cluster mean of 3.92 and standard deviation of 1.08.

DISCUSSION OF FINDINGS

The discussion of the findings of the study as presented below were done in the same order in which the research questions and hypotheses were arranged.

The findings of the study with regards to this research question revealed that out of the 28 items made of ICT skills for effective teaching, agricultural teachers possessed ICT skills expected for creating blogger for group instructions, use the keyboard to give command to the computer, selecting the right printer to print teaching material and effectively browse the web for teaching in agricultural education were low, on the general note the grand mean of this research question indicates that there is a high level of ICT skills possessed among Agricultural Education Lecturers in Colleges of education. This finding is in agreement with Esosa (2021) who discovered in his study that the use of information and communication technology (ICT) has been seen as an effective means for teaching and learning in higher institutions. The finding also confirms with McFarlane and Sakellariou (2010) who in their study discovered the ICT skills in Agricultural Education has enabled teachers to expose students to those practical aspects that will not be possible in the classroom. This is because technological tools not only bring innovation to academic centres, but also speed up transfer of information, increase students' interest, and allow processes to be automated, among other aspects to be taken into account is it improves concentration and comprehension.

Findings of the study in relation to this research question as shown in the corresponding Table revealed the extent to which Agricultural Education Lecturer integrate ICT skills teaching activity is high. The findings are in agreement with Abdelmoiz (2018) his study revealed that the most lecturers were possessed the knowledge of using basic Word processing functions. This indicates that, when it comes to the word processing skills among the TVET teachers of Sudan, they can only use basic word functions professionally. These findings are supported by Rogers's theory of diffusion of innovation (2011), that teachers are used to integrating ICT elements with relevance to the curriculum or learning objectives emphasized by the Ministry of Education of Malaysia. Also, the findings are accordance with the Malaysia Education Blueprint, (2013), in this study, the knowledge and skills about ICT that teachers are equipped, has encourage teachers to integrate ICT into the teaching and learning process that increase student learning outcomes. The finding is in agreement with Simin (2015) in his study of ICT integration, whose study revealed that teachers use computer, PowerPoint as tools for demonstration in working, teaching and presentations. Hatlevik & Arnseth, (2012) study revealed that teachers' positive beliefs and attitude on ICT have influence them to integrate ICT in their teaching practice.

CONCLUSION

The study aimed to examine the effect of Agricultural Education Lecturers level of competence and utilization using ICT teaching in colleges of education. The finding of the study reveals that Agricultural Education Lecturers have high level of competence in some ICT and equally high level of ICT utilization in some aspect. However, if the lecturer's competence and utilization of ICT would be improved significantly it will go a long way in improving the effectiveness of teaching in Colleges of Education.

RECOMMENDATIONS

Basa on the findings of this study the following were made

1. Institutions must invest in regular ICT training and capacity-building programs for lectures, ensuring they possess the necessary digital competencies.
2. Colleges should mandate ICT utilization and incorporate it as a key performance indicator for academic staff promotion, driving digital integration and excellence. Also more agricultural programme software should be subscripted for Agricultural Education Lecturers to integrate when teaching.

REFERENCE

Abdelmoiz, R., Xiaohui, C, & Laura L. H. (2018). Teachers' Skills and ICT Integration in Technical and Vocational Education and Training TVET: A Case of Khartoum State-Sudan. Published by Sciedu Press. *World Journal of Education*

Ahmed .M.Rahman (2016). Use of ICTs in Agricultural Higher Education: a Case Study of the Faculty of Agricultural Sciences, University of Gezira, Sudan. *International Journal of Agricultural Extension. Int. J. Agri. Ext. 04 (03) 2016. 181-184*

Albirini, A., (2016). *Teachers' attitudes toward information and communication technologies.* The case of Syrian EFL teachers. Computer & Education, 47:373-398.

Ananderaja Nallusamy (2015). Use of Information and Communication Technology (ICT) to achieve information literacy in agriculture. *International Journal of Agricultural Extension, Int. J. Agr. Ext. 03 (02) 111-122*

Egomo, J. E., Enyi, B. I. & Tah, M. M. (2012). Availability and Utilization of ICT Tools for effective instructional delivery in tertiary institutions in cross Rivers State, Nigeria. *Global Journal of Educational Research and Review, 1(8), 190-195*

Egunjobi, A. (2015). Teachers' and Learners' ICT-Readiness Assessment for Agricultural Science Instruction in Oyo State, Nigeria. *Research on Humanities and Social Scleme&S, 5 (14), 121-129*

Esosa, O. O. (2021) Information and Communication Technology Utilization in the Delivery Process Agricultural Education in college of Education in Nigeria.

Federal Republic of Nigeria, (2004a). National Policy in Education. NERDC, Abuja.

Federal Republic of Nigeria, (2004b). Information Technology and Education. Ministerial Press briefing, Abuja.

Karami, M., Karami, Z., & Attaran, M. (2013). Integrating problem-based learning with ICT for developing trainee teachers' content knowledge and teaching skill. *International Journal of Education and Development use Information and Communication Technology (IJEDICT), 9 (1), 36-49.*

Hart, T. U. (2016). The Availability and Utilization of ICT Facilities and Materials in Teaching and learning in Isaac Jasper Adakar Boro College of Education, Sagbama, Bayelsa State. *International Journal of Advanced Academic Research | Sciences, Technology & Engineering | ISSN: 2488-9849 Vol. 2,*

Hatlevik, O. E., & Arnseth, H. C. (2012). ICT, teaching and leadership: How do teachers experience the importance of ICT-supportive school leaders. *Nordic Journal of Digital Literacy, 7(1), 55-69*

Jyoti Bhalla, (2013) Computer Use by School Teachers in Teaching-learning Process. *Journal of Education and Training Studies Vol. 1, No. 2; October 2013 ISSN 2324-805X E- ISSN 2324-8068 Published by Redfame Publishing URL: http://jets.redfame.com*

Kidane, T. T. & Worth, S. H. (2015). The Attitude of High School Agricultural Science Teachers towards Agricultural Education Training in South Africa. *Journal of Human Ecology, 50(2):129-142*

McFarlane, A & Sakellarious, S. (2010). The Role of ICT in Science Education. Cambridge *Journal of Education, 33(3) 30-45.*

Ohakwue, S. N. (2018) ICT Power Point presentation Sub skills required of Business Educators to Reform the Delivery System. *Business Education Journal 6 (2), 45-56.*

Onu. F. M (2019). Utilization of ICT Facilities for Enhancing Instructional Delivery of Agricultural Science in Nigerian Secondary Schools. Library Philosophy and Practice *(e-Journal).* https://digitalcommons.unl.edu/libphilprac/2646

Simin, G. (2015). ICT integration in education, incorporation for teaching and learning improvement. *The Malaysian Online Journal of Educational Technology Volume 2, Issue 2*

Ugboaja C.I (2011) Information and Communication Technology Utilization in Human Capital. Development in Agriculture Education Zone Umuahia. Ladies of Ivory Tower (LIT) Journal. (2) 129-135.