Original Article

Availability and Utilization of Information and Communication Technology in the Teaching and Learning of Business Education in Colleges of Education in Enugu State, Nigeria

Odike, MaryRose, Ph. D. [1]   *Nnabuchi, Chidera Tessy* [2]   *Okolo, Ebere U., Ph. D.* [3]

[1]Department of Vocational Education – Godfrey Okoye University, Enugu, Nigeria

[2]Department of Vocational Education – Godfrey Okoye University, Enugu, Nigeria

[3]Department of Business Education – Institute of Ecumenical Education, Enugu, Nigeria

ABSTRACT

The study determined the availability and utilization of information and communication technology (ICT) in teaching and learning of Business education in colleges of education (government owned) in Enugu State. The population for the study consisted of two hundred and sixty-five lecturers and Business education NCE 3 students of government-owned Colleges of Education in Enugu state. A sample of 80 respondents, made up of fifteen (15) Business education lecturers and sixty-five (65) NCE three (3) students of Business education was used for the study. Stratified random sampling technique was used to compose the sample. The study adopted Descriptive Survey research Design. A structured questionnaire made up of thirty-one (31) items in accordance with the three research questions was used as the instrument for data collection. Cronbach Alpha was used to determine the reliability of the instrument and the reliability coefficient of 0.97 was obtained indicating that the instrument was highly reliable. Statistical mean, standard deviation and simple percentage were used to analyze the research questions. It was found among others that; relevant ICT resources were not available for teaching and learning of Business education courses in government-owned Colleges of Education in Enugu state and there are lots of challenges in the use of ICT recourse. It was recommended, among others thus, Business education lecturers should engage themselves in continuous training in ICT recourse, Colleges of Education should fully equip Business education department with ICT resources and adequate use and management of facilities should be ensured by the heads of the department as well as lecturers. It was concluded based on the findings that Business education students will not be able to acquire ICT skills that will give them competitive advantage in the world of work since ICT resources are not available and utilized in teaching Business education courses in Colleges of Education in Enugu state and suggestions for further studies were made.

Keywords: ICT, teaching and learning, Business Education, and Colleges of Education

Introduction

*I*nformation and Communications Technology (ICT) is a technology trend that has brought the world into a global village. It is a buzzword in media and telecommunications which have revolutionized the economy, business, industry, politics and education. Information and

Original Article

Communications Technology uses various information superhighways namely: the internet, intranet and extranet to function. The ICT is a science of information, which uses the computer, and multi-electronic resources to collect, process, store, retrieve and transmit or disseminate information to any part of the world. ICT has permeated virtually all aspects of human endeavour. It has crept into the educational system and has had obvious impact in the curriculum. ICT has been considered a priority in global education and Nigeria is not left out. The Federal government of Nigeria in the National Policy on Education (FRN, Revised 2014) recognizes ICT as a product of technological change and as an innovation in education. The main purpose was for acquisition of computer literacy and computer skills that are needed in all facets of human life in the 21st century.

The curriculum as developed by NERDC includes the introduction of basic technology, ICT, computer education and emphasis on creative thinking among others. Obioma (2007) pointed out that, the new curriculum is ICT – driven with emphasis on practical, concrete and hands – on experiences. More so, Ololube (2006) and Nwana (2009) remarked that both the teachers and the students should achieve better curriculum outcomes with the use of ICT resources. Agbamu (2004) considered information and communication technology to be the use of electronic computers and computer software to convert, store, process and transmit vocal, pictorial, textural and numerical information. Rodriguez and Wilson (as cited in Onah, Agbo & ukweze, 2016) defined ICT as the set of activities /materials which is facilitated by electronics means for the processing, transmission and display of information. ICT also refers to the technologies people use to share, distribute, and gather information and to communicate through computer networks. Akuyi (as cited in Onah, Agbo, & Ukweze, 2016) defined ICT as the ability to use electronic means to capture, process, store and communicate information. According to Guma, Faruque and Khushi (as cited in Bittrus, shakkosm, Nuhu, Kabea, Bulus & Shetima, 2016) noted that the integration of ICT in teaching and learning processes is one of the most practical solutions towards educational reform. Evans (2002) also described Information and Communication Technology as the acquisition, processing and dissemination of information by a micro-electronics-based combination of computing and communications. Information and Communication Technology may therefore be defined as all that is involved in gathering and processing information through computers and other related equipment to reach the desired places and people at a reasonable cost and time to the overall benefit of mankind. ICT have changed the lives of people, work and play.

Business education should not be left out of this change to exploit the potentials, shape and transform the educational landscape of the tertiary and secondary institutions in Nigeria. Effective Business education programme would ensure competencies in skills, knowledge of information and communication technology and proficiency in the world of work. With proper integration of ICT in Business education program, it will help to improve the academic training of business educators and holds out the opportunity to revolutionize office automation, pedagogical methods and expand access to quality education. There is the need to embrace the challenges through the development and use of ICT in Business education.

It is therefore, imperative to provide all the educational institutions with the needed ICT resources for teaching and learning of all the course including Business education. Such facilities should also be fully utilized in teaching and learning of Business education as well as other courses in the curriculum. It is obvious that if teachers are not competent to handle the facilities, then, the aim will be defeated. Hence it is equally important to equipped the teachers with the ICT competencies to ensure that any available ICT resources will be fully and effectively utilized in teaching and learning. Faturelab (as cited in Bittrus et. al, 2016) identified factors that inhibit the use of ICT in teaching mathematic as follows: lack of competence among teachers in the integration of ICT into their lesson delivery, teachers' negative attitude towards computer, lack of teachers' confidence, resistance to change, lack of man power, lack of constant power supply, lack of computer skills

Original Article

and lack of technical know-how and vision as how to integrate ICT in teaching, lack of teachers' high self-efficacy.

Business Education is the field of training in business practices and in specific skills such as accounting, information, processing, keyboarding/typewriting and shorthand. According to Aliyu (2006), the following are the objectives of Business education at the tertiary institutions; to develop a matured understanding of the general nature of business; provide the needed background of the general nature of business; provide training for leadership in business; provide training in specialized phases of business activity, and to lay a cultural and ethical foundation for the development of the fore-going objectives.

Similarly, Osula (as cited in Odike & Nnaekwe, 2018) noted that Business Education at all levels of education enables the recipients to; Acquire skills and knowledge of business, develop basic skills for personal use in the future, Relate the knowledge and skills acquired to national development, Develop skills for office occupation, Prepare students for further training in business studies and Provide orientation and basic skills with which to start a life of work for those who may not undergo further training. In the view of Nwanewezi (2010), Business education encompasses education for office occupations, business teaching, business administration and economic understanding. However, one can say that Business education is the intellectual and vocational instructions given to students to earn a living in the contemporary industrial and ever-changing business environment. In Nigeria, Business education is offered at different levels of education but done as a fully-fledged course in the tertiary institutions, particularly in the Colleges of Education and faculties of education of the universities.

Teaching is an attempt to bring about desirable changes in learner behaviour and reflects the expected behaviour needed in improving on the learner and the society where he lives. Information and Communication Technology driven change in Business education has been piecemeal and very uneven in its influence; change has been characterized not by revolution but by gradualism (Mogboh, 2002). The problem of value creation in ICT has enabled Business education in an interesting one. Few students engage in business studies for its own sake, they study in order to gain employment on terms more favourable than if they had not undertaken such a course of action (Preffer & Fong, 2004). The pedagogical capabilities of ICT have been neglected in Business education. Although the importance of pedagogy has been recognized since the dawn of the ICT era, attention has typically been focused on the novelty of ICT rather than its capacity to create value (Nwokedi, 2007).

The availability and utilization of information and communication technology would develop teachers and students' business ability, concept and attitude. Well written instructional packages to complement the efforts of business teachers and students, especially the poorly skilled/equipped students to develop effective business attitudes and concepts are achievable through ICT. Effective teaching and learning of Business education depends on the availability and organization of materials, equipment, media and technology (Akpan, 2003) Information and communication Technology would enhance the teaching of business concepts to the learner at every corner of the globe. However, it is uncertain if the tertiary institutions in Enugu state are utilizing ICT resources effectively to enhance teaching and learning ability of Business education students.

The need for availability and utilization of ICT resources in teaching –learning situations is on the increase. The government has made effort towards the building of ICT resources and procurement of ICT resources for various schools and colleges. For instance, during Governor Peter Obi's administration in Anambra State, computer and its accessories were procured in large quantities and presented to schools. Further, teachers were sent on short-term computer courses. Still, they are being challenged in the use of ICT resources in teaching Business education as a subject of study. It is against this backdrop that the present study seeks to find out the range of ICT

Original Article

resources available for the teaching of Business education in colleges of education, also to determine the utilization of ICT resources by teachers in the teaching of Business Education.

Statement of the Problem

Business Education teachers are expected to integrate information and communication technology in the teaching and learning process. They ought to use ICT resources like Microsoft word, excel, power point, projectors, computers, and among others so that it can support instruction and enable learners to use ICT resources as important tools to meet their information and learning needs. However, this expectation has not been achieved among the tertiary institutions where Business education courses are taught in Enugu State.

Consequently, in some tertiary institutions, ICT resources like educational transmitters, smart board, ICT laboratory, digital library, and among others are not available to be made use of in teaching Business Education courses, whereas, in most cases where some of the ICT resources like photocopying machines, projector, microphone, laptops, and among others are available, they are not adequately utilized by the lecturers for teaching and learning of Business Education courses, thereby preventing the students from learning how to make proper use of those facilities.

Hence most of the Business Education graduates are not well equipped with the ICT skills expected of them. Consequently, the students after graduation will may not be gainfully employed and even when they get employment, their productivity will be very low.

It is against this backdrop the research engaged in this study to investigate the availability and utilization of Information and Communication Technology (ICT) in Teaching and Learning of Business Education has been examined in this study.

Purpose of the Study

The purpose of the study was to determine the availability and utilization of Information and Communication Technology (ICT) in teaching and learning of Business education in government owned Colleges of Education in Enugu State, Nigeria.

Specifically, the study sought to:
1. ascertain the ICT resources available for teaching and learning of Business education courses in government owned colleges of education in Enugu State;
2. determine the extent to which ICT resources are utilized by Business education lecturers in teaching of Business education courses in government owned colleges of education in Enugu State.
3. Identify the hinderances to effective the utilization of ICT resources in teaching and learning Business education courses in government owned colleges of education in Enugu State.

Research Questions

The following research questions were formulated for this study:
1. What are the information and communication technology (ICT) resources available for teaching and learning of Business education courses in government owned colleges of education in Enugu State.?
2. To what extents are information and communication technology (ICT) resources utilized in teaching and learning of Business education courses? in government owned colleges of education in Enugu State.?
3. What are the challenges in the utilization of ICT resources in teaching and learning of Business education program government owned colleges of education in Enugu State.?

Method

The researcher adopted a descriptive survey research design. This was because descriptive survey research design was aims at exploring opinion of a given population on existing practices and conditions (Abiola, 2002). This study covered two government own Colleges of Education in Enugu State, Nigeria. Enugu State has six colleges of education which consists of both private and government owned. In all the colleges of education in Enugu state, government owned colleges of education have the largest population of Business Education students The population for this study was 265. The population

Original Article

consisted of forty-nine (49) Business Education lecturers and two hundred and sixteen (216) students from the two Colleges of Education. A sample of eighty (80) lecturers and students was used for the study. A stratified random sampling technique was used to compose the sample of lecturers and students from two colleges of education. The researcher drew 30% of the lecturers and students through stratified random sampling according to Dessel, (2013).

A structured questionnaire was used to collect data for this study. Section A of the instrument contained demographic information of the respondents, while section B contained thirty-one (31) items which dealt with the main questionnaire items in accordance with the three research questions. Research question one has fifteen items which was responded to using checklists; available and not available, research question two has eight items which was responded to using four rating scales; very large extent, large extent, small extent, very small extent and research question three has eight items which was responded to using four rating scales; strongly agree, agree, disagree and strongly disagree.

The instrument was subjected to face validations by three specialists, one from measurement and evaluation, and two from Business Education program in the department of Science and Vocational Education, Godfrey Okoye University, Enugu. The reliability of the instrument after face validation was established using Cronbach alpha and a reliability co-efficient of 0.97 was obtained, an indication that the instrument was highly reliable for data collection. The questionnaire for data collection was administered and retrieved personally with the help of research assistants. A total number of eighty (80) questionnaires were distributed and collected from the respondents. The data collected were analyzed using mean, standard deviation and percentage (%) according to research questions.

For research question one, **t**he acceptable level of percentage was 50% and above for items indicating positive that is 'Available'. Invariably, any item that scored below 50% was regarded as negative that is 'Not Available. For research question two. a weighted mean score of 2.50 and above was considered as 'Agreed' (A), while a weighted mean score of 2.49 and below was considered as 'Disagreed' (D). In providing answers to items in question three, any item with mean of 2.50 and above was interpreted as 'Agree' (A) while mean ratings below 2.50 were interpreted as 'Disagree' (D).

Result

The results of the analysis are presented in the tables below:

Research question 1

What are the information and communication technology (ICT) resources available for teaching and learning of Business education courses?

Table 1

Frequency and percentage distribution of respondents on available ICT resources for Business Education Courses.

S/N	ITEMS	Available		Not Available		Remark
	ICT Resources	N0.	%	N0.	%	
1	Desktop Computers	60	75.0	20	25.0	Adequate
2	Laptops	70	87.5	10	12.5	Adequate
3	Projector	55	68.8	25	31.3	Adequate
4	Photocopying machine	58	72.5	22	27.5	Adequate
5	Printers	50	62.5	30	37.5	Adequate
6	ICT laboratory	15	18.8	65	81.3	Inadequate
7	Microphone	60	75.0	20	25.0	Adequate
8	Radio	15	18.8	65	81.3	Inadequate
9	Smart board	5	6.3	75	93.8	Inadequate

Original Article

10	Tv screen	8	10.0	72	90.0	Inadequate
11	Educational transmitters	5	6.3	75	93.8	Inadequate
12	Power point	30	37.5	50	62.5	Inadequate
13	Excel	68	85.0	12	15.0	Adequate
14	Digital library	10	12.5	70	87.5	Inadequate
15	Corel draw	9	11.3	71	88.8	Inadequate

It was found that items 1,2,3,4,5,7, and 13 with the percentage above 50% (cut off percentage) are available in the institutions while items 6,8,9,10,11,12,14 and 15 with the percentage below 50% are not available in the institutions. The result shows that majority of ICT resources are not available for the teaching and learning of Business education in Colleges of Education in Enugu State.

Research Question 2

To what extent is information and communication technology (ICT) facilities utilized in teaching and learning of Business Education courses?

Table 2

Mean responses on the extents of utilization of are information and communication technology (ICT) recourses teaching and learning of Business education courses in government owned colleges of education in Enugu State.

S/N	ITEMS	VLE	LE	SE	VSE	N	Mean	SD	Remark
1	Business education lecturers and students browsed for materials internet to improve their teaching and learning.	40	20	10	10	80	3.1	1.06	Agreed
2	Business education lecturers and students exercise high level of competency in the use of power point teaching and learning Business education course.	5	15	35	25	80	2.0	0.87	Disagreed
3	Practical course in Business education are taught with overhead projector by lecturers.	20	10	20	30	80	2.3	1.21	Disagreed
4	Business education lecturers and students use Microsoft word in the classroom while teaching and learning	10	15	40	15	80	2.3	0.91	Disagreed
5	Assignments are given to students by lecturers using Microsoft excel	2	18	50	10	80	2.2	0.66	Disagreed
6	Business education lecturers use teleconferencing gadgets for lecturers	4	6	30	40	80	1.7	0.82	Disagreed
7	Business education lecturers use photocopying machines and printers in their offices.	20	15	35	10	80	2.5	1.00	Agreed
8	Business education lecturers use public addressing system for their lectures	15	25	20	20	80	2.4	1.07	Disagreed

It was found that items 1and 7 had mean score above 2.5 (cut off mean) which is the level of acceptance while items 2, 3, 4, 5, 6, and 8 had a mean score below 2.5 which is the level of rejection. The result shows that majority of ICT resources are not utilized for the teaching and learning of Business education in

Original Article

government owned colleges of education in Enugu State.

Research Question 3

Table 3

The mean responses on the challenges in the utilization of ICT in teaching and learning of Business education in government owned colleges of education in Enugu state.

S/N	ITEMS	SA	A	D	SD	N	Mean	SD	Remark
1	High cost of procurement and installation of ICT recourse.	30	30	16	4	80	3.1	0.88	Agreed
2	Shortage of skilled manpower.	40	30	15	5	80	3.6	0.85	Agreed
3	Lack of specialize ICT learning center.	10	6	30	34	80	1.9	1.00	Disagreed
4	Poor maintenance of existing telecommunication facilities.	30	25	15	10	80	2.9	1.04	Agreed
5	Poor power supply	42	33	3	2	80	3.4	0.69	Agreed
6	Networking problem in Nigeria.	40	30	3	7	80	3.3	0.90	Agreed
7	Insufficient ICT recourse	30	25	15	10	80	2.9	1.12	Agreed
8	Lack of security	35	30	10	5	80	3.2	0.92	Agreed

It was found that items 1, 2, 4, 5, 6, 7, and 8 had mean score above 2.5 (cut off mean) which is the level of acceptance while items 3 had a mean score below 2.5 which is the level of rejection. The result shows that majority of the respondents agreed on the challenges in the availability and utilization of ICT resources in the teaching and learning of Business education in government owned colleges of education in Enugu State.

Discussion

Based on the Data Analysis in table 1, on the information and communication technology (ICT) resources available for teaching and learning of Business education courses, the result shows that majority of ICT resources listed are not available for the teaching and learning of Business education courses in government owned Colleges of Education in Enugu State. This implies that ICT resources are not available for teaching and learning of Business education in government owned colleges of education in Enugu state. This implies the Business education lecturers are still using only traditional method of chalkboard in teaching. This is in line with the findings by Abdulkarim and Fiberesima (2010). carried out on availability of ICT resources in colleges of education, that ICT resources are not available for

teaching and learning of Business education courses. The finding also agreed with that of Amahi and odigili (2021) instructional facilities needed for effective teaching and learning of business education courses are mostly not available in colleges of education in Delta State.

The second objective of this study was to ascertain the extent of utilization of ICT resources for teaching and learning of Business education courses. The data analyzed in table two shows that majority of ICT resources are not utilized for teaching and learning of Business education in government owned colleges of education in Enugu State. This agreed with the finding of Amahi and odigili (2021) that available instructional materials for teaching business are not effectively used in teaching business education in Delta State colleges of education.

The third research question was on challenges militating against the utilization of ICT resources in teaching and learning of Business education program in colleges of education in Enugu state. The result shows that majority of the respondents agreed that most of the challenges identified are militating against the utilization of ICT resources in teaching and learning of Business education courses in government owned colleges of education in Enugu State. The challenges include cost of acquiring and installation,

What are the challenges in the utilization of ICT in teaching and learning of Business education program?

Original Article

shortage of skilled work force, poor maintenance of existing facilities, poor power supply, and lack of security, insufficient ICT recourse, and networking problem. This finding is not contrary to that made by Faturelab (as cited in Bittrus et al., 2016) that many factors inhibit the use of ICT in teaching and learning , as follows : lack of competence among teachers in the integration of ICT into their lesson delivery, teachers' negative attitude towards computer, lack of teachers confidence, resistance to change, lack of man power, lack of constant power supply, lack of computer skills and lack of technical know-how and vision as how to integrate ICT in teaching , lack of teachers' high self-efficacy.

All these findings imply that business education graduates are not adequately being equipped with needed ICT employability skills needed for the world of work in this 21st century digital businesses environment, offices and schools. The findings also implied that teachers lack self-efficacy in implementation of the information communication technology pedagogy (ICT). Hence, they need to engage themselves in acquiring ICT skills to ensure job security or else may be lose their job in the nearest future.

Conclusion and Recommendations

Information Communication Technology (ICT) facilities are very important for teaching and learning of Business education in this 21st century due to changes in technology. This is to inculcate in Business IC T skills and knowledge needed in the world of work. Unfortunately, most of the identified ICT resources needed for teaching and learning of Business educations are not available and those available are not being fully utilized in teaching and learning of Business education. There are many challenges facing the utilization of ICT recourse sin teaching and learning of Business education. It was concluded based on the findings that Business education will graduate, without acquiring ICT skills that will give them competitive advantage in the world of work since ICT resources are not available and utilized in teaching Business Education courses in Colleges of Education in Enugu state.

Based on the findings of the study the researchers made the following recommendations:
1. Required ICT facilities should be made available to colleges of education in Enugu state by the state and local Governments, and alumina of colleges of education. Corporate bodies and Philanthropists in the communities, where all the colleges of education are located
2. Business education lecturers should engage themselves in continuous training in ICT resources to equip themselves with ICT skills to enable them use the available ICT resources in teaching their students.
3. Parents Teachers Association (PTA) of colleges of education should also help in acquiring ICT facilities for the institution.
4. Adequate use and management of available ICT facilities should be ensured by the heads of department of Business education as well as lecturers.
5. State government should provide adequate fund for Business education program to enable it procure the necessary relevant ICT recourse.
6. Colleges of Education should fully equip Business education department with ICT resources and adequate use and management of facilities should be ensured by the heads of the department as well as lecturers.

References

Abdulkarim, M. & Fiberesima, D. (2010). Contemporary problems affecting training of Business education students in River state. *African Journal of Education Research and Administration, 3(4), 54-60.*

Abiola (2002). Accessing the effectiveness and efficiency of information and communication technologies in technical and vocational education. *Journal of Business and Educational Policies, 2, 150.*

Agbamu, A. (2004) *Understanding business education.* Micsons Press.

Aliyu, M. M. (2006). *Business education in Nigeria: Trends and issues.* Ghosen print media.

Akpan, E. B. (2003). Standards in business education universities: A critical analysis and

Original Article

the way forward. *Business education Book of Readings,1*(4),22-25.

Alemneh & Hastings (2006)). Vocational education. An effective tool for citizenship education in Nation building. *The Nigerian Journal of Educational Service, (2), 53-57*

Amahi, F. U, & Odigili, B. C., (2021). Evaluating instructional facilities in teaching and learning business education courses. *Nigeria Journal of business education 8(1),229-234.*

Bitrus, S. D., Nuhu, K. B., & Shetima A., (2016). Teacher's-efficacy and attitude as a correlate of teachers' use of ICT in teaching mathematics for job creation. *Journal of Association of Vocational and technical Educators of Nigeria (JAVTEN), 21(2),274-86.*

Brewton , E (2002). *Fundamental of vocational education.* Smith Standard Nigeria Limited.

Dessel, (2013). *E-education in Nigeria. Challenges and prospects.* A presentation at 8th U.N. Task Force Meeting, U.S.A.

Evans, P.C. (2002), Assessment of the level of ICT skills possessed by office technology and management teacher for effective service delivery in polytechnics. *Nigerian Vocational Association. Journal, 15(1),184-192.*

Federal Republic of Nigeria. (2014). National policy on education. Lagos, NERDC Press.

Gates, B. (2004). *Business at the speed of thought, succeeding in the digital economy.* Warner. Books.

Guma,A., Faruque,A. H. & Khushi, M (2013). The role of ICT to make teaching-learning effective in higher institutions of learning in Uganda. *International Journal of Innovative Research in science, Engineering and Technology, 2 (1), 6-12.*

Hadded, W.D. & Drexler, A. (2002). The dynamics of technologies education.

Nwokedi, T. (2007). Technical vocational education and training for the 21st century. Paris: UNESCO.

Nwanewezi A.(2010), Employability skills, the role of business education. *Journal of Business* 3(1),313 – 316.

Marshall, Elgort & Mitchell (2003) Information and communication technology, as a tool for developing Nigerian education sector. *Journal of Business Studies and Technology Development, 1, No 2 Pp. 73 – 77.*

Lemke, C. (2004). Foreword: Will new teachers be ready to Teach in a digital Milken family foundation. Retrieved Jan 13, 2004 from http://www.mff/org Accessed 1st October, 2011.

Minishi, M., (2007). First principle of instruction education technology research development. national commission for colleges of education (2004). Minimum Standard for N.C.E. NCCE Abuja, 3rd Ed.

Nwanewezi, M.C. (2010). Problems in Business education research in ICT era as perceived by business educators. Business education Journal, 7 (2) Pg. 46-54.

Obioma R.,(2007) Methodology in formal and non-formal technical and vocational education. Enugu: Jas Printers and Publishers Co.

Odike, M., & Nnaekwe, U. K. (2018). Influence of teachers' attitude towards teaching profession on under graduate non-education students :Perception of Teacher Education. *International Journal of Academic Research In Progressive Education And Development*, 7(4), 67–79.

Ohonba, A.A. (2006). Imperatives of ICT for Teachers. A paper presented at the National Information Skills an Acquisition Workshop Organized by Teachers Registration Council of Nigeria (TRC), Abuja.

Original Article

Onah, B.I., Agbo, G. C., Onah, E.N., & Ukweze, F.N.(2016). The role of information and communication technology (ICT) in job creation through technical vocational education and training (TVET) among computer education graduates in Nigeria universities. *Journal of Association of Vocational and technical Educators of Nigeria (JAVTEN) (21)2. 173-187 J*

Osuala, E.C. (2004). Principles and Methods of Business and Computer Education. Enugu: Cheston Agency ltd.

Preffer, M. and Fong, N. (2004). Issues of information communication technology, Assessment in the teaching and learning of Business education courses. *Business Journal, (1)6. 95-107*

Rodriguez, F.& Wilson, E., (2000). "Are Poor countries losing the information revolution". Washington D.C: World Bank