

**ROLE OF INFORMATION AND COMMUNICATION
TECHNOLOGY (ICT) RESEARCH AND PROBLEM-SOLVING
COMPETENCIES OF BUSINESS TEACHER EDUCATION FOR
EMPLOYABILITY IN TERTIARY INSTITUTIONS IN ANAMBRA
STATE.**

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Abstract

The study examined the role of Information and Communication Technology (ICT) research and problem-solving competencies on business teacher education for employability in tertiary institutions in Anambra State. Design of the study was descriptive survey. The population of the study consisted of 96 business educators in five tertiary institutions in Anambra

State that offer business education. Due to the manageable size, there was no sampling (Nwana, 2015). Two research questions guided the study and two null hypotheses formulated were tested at .05 level of significance using the t-test. The instrument used for data collection was a structured questionnaire. The questionnaires were administered to all business educators in the five tertiary institutions in Anambra State that offer business education programme. The instrument was validated by two experts and the reliability index yielded 0.84 using Cronbach Alpha method. Data collected were analyzed using mean and standard deviation. Findings from the study revealed that ICT research competencies and problem-solving competencies are required to a very high extent for effective business education programme. Based on the findings of the study, the researcher concluded that Information and Communication Technology (ICT) research competencies and problem-solving competencies are required for effective business education programme in tertiary institutions in Anambra State. The researcher recommended among others that Nigerian Universities and Colleges of Education should introduce ICT literacy as a full fledge credit course at all levels of their curriculum programmes and make it a core course. This will go a long way to equip prospective teachers with requisite ICT research competencies and problem-solving before employment. Government and school administrators should assist Universities and Colleges of Education with enough ICT facilities which will enhance teaching and learning as well as create constant avenues of business educators attending on the job training, Workshops, Conferences on ICT staff development.

KEYWORDS: *Business Teacher Education, ICT Research & Problem-Solving Competences and Employability*

INTRODUCTION

Business education programme is an academic programme offered at the tertiary level of education in Nigeria that is geared towards empowering its recipients with business skills, knowledge, competencies, understanding, attitude and attributes that make recipients to be self-employed, employer of labour, gain employment and be relevant in a global economy. Business

education programme is a functional education programme that prepares individuals for gainful employment and sustainable living in the society (Akaeze et al, 2016). Okeke-Ezeanyanwu (2021) asserted that business education is an educational programme that prepares students for entry into and advancement in jobs within business and prepares them to handle their own business affairs to function intelligently as consumers and citizens in business economy. In a similar manner, Mshelia in Okeke-Ezeanyanwu (2021), is of the view that business education is a type of education that helps someone to learn the facts, acquire skills, develop abilities, solve problems and be able to have business-like attitudes useful for success in business situation.

One of the objectives of business education programme is to create employment either self or paid for young Nigerians who are roaming the streets, majority of who are into negative influence as a result of lack of jobs and lack of appropriate skills, knowledge and attitude which would enable them secure and progress in a job or be self-employed. Mshelia in Okeke-Ezeanyanwu (2021) also stated that one of the basic objectives of business education is to empower the recipients with desirable skills, knowledge and values to perform specific functions so as to be self-reliant. Business Education therefore, equips youths with appropriate skills, knowledge, abilities and competences that can enable the individuals to be self-employed and self-reliant leading to sustainable economic development (Okeke-Ezeanyanwu, 2021). For business education programme to be effective, there must be business teacher education.

Business teacher education involves the process of educating future students to the focus on past, present, and modern day economics. At various grade levels, a business teacher might focus on economics, the basic understanding of the world financial economy, marketing, advertising or accounting in every ever-expanding commerce business environment, business educators prepare students for wide variety of international business and opportunity. Business teachers are educating future students to focus on the past, present and modern day economics. According to Amesi in Giwa (2020) business education covers a wide range of spectrum of economic life activities in any society. It also refers to the pedagogical and

desirable business competencies necessary for self-employment or being employed with a view to making the recipients self-reliant. Business education is educational programme that focusses on understanding office occupation, distribution and marketing occupation, accounting, business teaching, Office Technology and Management (OTM), business administration economics understanding. One of the major aims of business education programme is to transfer knowledge for employability. So business teachings transfers knowledge, encompasses skills, attitude, and other competencies needed for an individual to be reasonable in life.

Through business teacher education, individual possesses essential life training which makes them have sound personal finance and money management training that could bring higher profit for the sector where they are employed or self-employed; thereby sustaining the industries to be well established in order to reduce unemployment, poverty and then enhance economic growth. The business teacher education according to Udoye and Ndum in Ile and Ukabam (2020) is an educational training process which business teacher-trainees receive with the primary motive of enabling them acquire adequate attitudes, concepts, knowledge, understanding and skills in business activities, for person or vocational usage, and/or for careers as administrators, managers and teachers whenever they may find themselves in the business world.

The objective of business teacher education is to inculcate ideas and transfer knowledge on business teacher-trainees on how to create employment either self or paid for young people who are roaming the streets, majority of who are into negative influence as a result of lack of jobs and lack of appropriate skills, knowledge and attitude which would enable them secure and progress in a job or be self-employed. It educates business teachers who will positively be oriented towards teaching business subjects; producing effective business teachers who are highly motivated and conscious of the importance of the roles they are expected to play in the development of business education (Udoye & Ndum in Ile & Ukabam, 2020). Business teacher education aims at producing business teacher who possess sufficient skills and knowledge in the theory and practice of business education which they can in turn teach in the secondary schools and tertiary institutions and inculcate in business education students with sufficient

knowledge and skills in business management. It is also the aim of the business teacher education to transfer requisite knowledge to business education students so that they can meet up with global challenges. To this effect, knowledge transfer has become very necessary.

Research is defined as a continuous searching process to examine ideas and test the accuracy of hypotheses, determine their merit and generalizations in order to verify their application to navel situation and their reliability for repeated use (Frensch & Funke, 2015). The ICT research competencies involve the use of academic social network, allowing the user to chat and collaborate with other users worldwide. Educators need to manage references from other research tools such as Google Scholar; automatically create a bibliography for the user as the user creates own papers; generate detailed and accurate citations when the user incorporates other papers into his research; and make information obtained from the Internet the most up-to-date.

In addition, business educators need to publish research information online and make it accessible from any location. They can search all manner of academic literature from journals and white papers to scientific articles and use plagiarism checker to guard against plagiarism. They can also use scan marker which is a portable digital OCR reader for optical character recognition and is a device that can 'read' a page of printed text and then convert it into usable data and read back what the user has scanned with Scan marker. This is in line with Comer in Ugwuogo (2013) who stated that network may link tens, hundreds or even thousands of computers, enabling them to share on information and processing power. Research this day is internet-based.

On the other hand, Internet is a computer-based global information system. Internet is a global computer network providing a variety of information and communication facilities, consisting of interconnected networks using standardize communication protocols. Song and Khong in Ugwuogo, (2013) expressed that internet is a worldwide collection of networks, gateway servers and computers using a common set of telecommunication protocols to link up.

The internet sometimes called simply "the Net," is a worldwide system of computer networks – a network of networks in which users at any one computer can, if they have permission, get information from any other computer and

sometimes talk directly to users at other computers (Rouse, 2019). Internet is composed of many interconnected computer network. Corner in Ugwuogo (2013) stated that network may link tens, hundreds or even thousands of computers, enabling them to share on information and processing power. This means that when two computers are connected over the internet, they can send and receive all kinds of information such as text, graphs, voice, video and computer programmes. Ikemba (2017) observed that both the students and teachers of colleges of education have a high level of internet surfing competencies to make them successful in their chosen careers. So when computer networks are linked together, it becomes a tool for learning by the students. Students browse out information for their studies on the internet.

Through computer assisted instruction (CAI), problem situations can be presented to students to guide their thinking, respond to their questions and also manage their performance (Danner & Pessu, 2013). Computer enhances problem-solving skills of the learners by focusing on thinking skills especially in subject such as mathematics. Danner and Pessu (2013) stated that through computer assisted instruction, problem situations can be presented to students to guide their thinking, respond to their questions and also manage their performance. Awonobi in Ejar, Eni and Ekwere (2016) stated that integration of ICT in teaching and learning through Ms. Excel for spreadsheet, data logs, data base, simulate, internet, e-mail, etc could be used to think and work. Spread sheets can be used in performing mathematical calculation for data entry, tabulation and group production. Mathematically by improving their willingness and ability to pose questions, seek solutions solve problems and communicate and apply mathematical ideas. Every day is faced with problems that require analytical thinking, creativity and resourcefulness to solve. People explore different approaches to analyzing and solving problems in an organization framework (Danner & Pessu, 2013). People develop the ability to apply analysis techniques to unfamiliar problems and present their investigation through the use of wide range of innovative ICTs including prototyping, cloud-based tools, report writing and presentations. ICT can be used to do complex mathematical and statistical calculations which are important in research. The ICT will facilitate the compilation of data on time, and the performances of statistical analysis

are not only performed instantly but also accurately than possible manually. They can be used for data manipulation and analysis.

Integrating ICT into business teacher education helps to impact knowledge more positively and permanently which helps in employment. By possessing ICT research and problem-solving competencies, business teacher education will improve greatly. A situation where students are sufficiently provided with the necessary knowledge, skills and competencies, securing employment after school is possible.

Employment is a state of being engaged in an activity or service for wages or salary. Employment can be permanent or fixed-term, casual, apprenticeship or trainees. It could also be contract employment or agency staff. Business teacher education is to prepare its graduates for work, which will earn them their living, and for the development of the society. There are several jobs opportunities open to business education graduates for their survival because vocational training and knowledge can be utilized for successful business ventures. As business education graduates, one can work as a teacher or in the following areas: consultancy, trading, teaching, chartered accountancy, advertising, investment banking, bank management, retail buying, distribution and logistics management, insurance underwriting, marketing, consumer products, market research, personnel officer, public relations officer, retail management and sales (Ngcareers, 2019). They can work in many government offices such as: Teaching, cashier, secretary, bank officer, receptionist, marketer, computer operator, bank clerk, mail carrier, account clerk, postal clerk, purchasing agent, telephone operator, manager, public relation officer, insurance agent typist, bank cashier, accountant, bank manager, sales manager, administrative manager, administrator and salesman. Ugwuogo et al (2019) stated that any of the following vocational oriented jobs can be undertaken by business education graduates: Government Office Work or Paid Employment; self-employment/establishment of business centers; establishment of private vocational schools; consultancy; supplying and distribution; product advertising and promotion services; estate agent; petty trading; sales of office machines and equipment and stationeries and global system for mobile communications (GSM) business.

Business education as a programme faces a lot ICT challenges especially in teaching and learning. Some of the challenges are: inadequate facilities such as computers, laboratories etc; lack of competent computer literate lecturers; erratic/epileptic/irregular power supply; paucity of fund; lack of interest on the part of the lecturers; lack of technical skilled manpower and technicians to repair and maintain the already in use ICT facilities/tools and lack of internet or slow connectivity.

Statement of the Problem

The present day survival challenges require business teacher educators in secondary schools and tertiary institutions to possess ICT competences in order to be effective in teaching and learning business education programme. Today, the advancement of new technology has brought a big challenge to business educators. Business education teachers and lecturers were trained theoretically and with old machines and had been working in schools' system for many years, particularly before the introduction of modern technologies in teaching and learning. Business education lecturers were not taught with modern ICT facilities and tools. Most business educators do not have the competency in the use of research machines/engines, use of common e-mail programme for communication, use of Word Processing Programmes such as Ms Word and Word Perfect for word production, setting up an internet connection and connecting to the internet etc. for problem solving and teaching and learning business education programme. On this note, Aliyu in Akaeze, Nebo and Akpan (2016) lamented that modern business education cannot be carried out or function effectively without ICT application and thus be implemented in schools without the provision of the tools related to what is currently in use in the modern offices. Poor acquisition of ICT competencies resulted in producing students with low level of ICT competencies which prevents them to fit well in global economy. This is a pertinent situation that has forced business teacher educators to question further and to inquire more into the causes of these misfortunes. It is therefore worrisome to note that business educators do not possess all the needed ICT competences in teaching and learning. The problem of this study therefore, is that business education graduates do not secure employment due to lack of

skills and competencies required of them to function effectively in the present day innovative offices.

Purpose of the Study

The main purpose of the study is to determine the role of (ICT) research and problem-solving competencies on business teacher education and knowledge transfer for employability as perceived by business educators in tertiary institutions in Anambra State. Specifically, the study sought to ascertain the:

1. Extent ICT research competencies are required for effective business teacher education programme as perceived by business educators.
2. Extent ICT problem-solving competencies are required for effective business teacher education programme as perceived by business educators.

Research Questions

The following research questions were formulated to guide the study.

1. To what extent are ICT research competencies required for effective business teacher education programme as perceived by business educators?
2. To what extent are ICT problem-solving required for effective business teacher education programme as perceived by business educators?

Hypotheses

The following null hypotheses were tested at 0.05 level of significant:

1. There is no significant difference in the mean responses of business educators from Colleges of Education and business educators from Universities on the extent research competencies are required for effective business teacher education programme.
3. There is no significant difference in the mean responses of male and female business educators on the extent problem-solving competencies are required for effective business teacher education programme.

METHOD

The design used in this study was a survey research design. A survey design according to Nworgu, (2015) is one in which a group of people or items are studied by collecting and analyzing data from only a few people or items considered to be representative of the group. The study was carried out in Anambra State of Nigeria. The population for this study is 96 business educators. The entire population was used as the number is manageable. This is in line with the views of Nwana (2015) where he noted that it is better to study the entire population when they are small and the time requirement for the execution of the exercise is enough. It comprised all the business education lecturers from the three universities and two colleges of education that offer business education in Anambra State. Structured questionnaire with 33 items developed by the researcher was used as an instrument for data collection. The Likert scale response pattern was used in determining the level of business educators' acceptance of the items in the questionnaire; Two experts, one from Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus and another from Federal College of Education (Tech), Umunze subjected the instrument to face and content validity. The experts made some criticisms and the corrections they believed would be helpful to the study. Cronbach Alpha reliability method was used to ascertain the reliability of the instrument which yielded a coefficient of 0.84. A total of 96 copies of the questionnaires were administered to the respondents personally by the researcher. The whole copies of the questionnaire instrument were filled and returned for the study. Statistical Mean and Standard Deviation were used to answer and analyze the data to research questions. Any item with the mean rating of 3.50 and above was considered as agreed otherwise disagreed. Hypotheses were tested using the t-test at .05 level of significance. A null hypothesis was accepted if the calculated t-value was equal or higher than the critical value at 0.05 level of significance and appropriate degrees of freedom. Otherwise, the null hypotheses were not accepted.

Research Question One: To what extent are research competencies required for effective business education programme?

Table 1: Mean Ratings on ICT Research Competencies Required for Effective Business Education Programme**N = 96**

| S/ N | Item Description | X | SD | RKS |
|-----------------|---|-------------|-------------|------------|
| 1 | Use of academic social network allows the user to chat and with other users worldwide. | 4.59 | 0.61 | VHE |
| 2 | Allow import papers from other research tools such as Google Scholar | 4.49 | 0.62 | HE |
| 3 | Automatically create a bibliography for the user as the user creates own papers. | 4.56 | 0.61 | VHE |
| 4 | Generate detailed accurate citations when the user incorporates other papers into his research. | 4.88 | 0.65 | VHE |
| 5 | Makes information obtained from the Internet the most up-to-date | 4.67 | 0.61 | VHE |
| 6 | Publish research information online making it accessible from any location | 4.66 | 0.62 | VHE |
| 7 | Search all manner of academic literature from journals white papers to scientific articles | 4.69 | 0.59 | VHE |
| 8 | Use plagiarism checker to guard against plagiarism | 4.66 | 0.60 | VHE |
| 9 | Use Scrivener help the user to avoid pitfall by adding important structure to the finished work. | 4.67 | 0.63 | VHE |
| 10 | Use Scan marker which is a portable digital OCR reader for optical character recognition and is a device that can 'read' a page of printed text and | 4.56 | 0.59 | VHE |
| 11 | Read back what the user have scanned with Scan marker | 4.60 | 0.58 | VHE |
| | Total Grand X Score | 4.64 | 0.61 | VHE |

Table 1 showed the mean and standard deviation on ICT research competencies required for effective Business education programme. The cluster mean of 4.64 falls within the range of Very High Extent. This indicates that ICT

research competency is required to a very high extent for effective Business education programme. The standard deviation of .61 which is relatively large showed that there is less degree of homogeneity in business educators' rating of ICT research competency requirements. Research Question 2: To what extent are problem solving competencies required for effective business education programme?

Table 2: Mean Ratings on ICT Problem-Solving Competency Required for Effective Business Education Programme

N

= 96

| S/ N | Aspects of ICT Problem-solving Competency | X | SD | RKS |
|---------|---|-------------|-------------|------------|
| 12 | Define problems in an organizational problem/context. | 4.49 | 0.62 | HE |
| 13 | apply various ICT tools to solve organizational problems. | 4.67 | 0.61 | VHE |
| 14 | Build a solution to address an organizational problem. | 4.36 | 0.65 | HE |
| 15 | Evaluate the viability of an ICT solution from an organizational value perspective. | 4.59 | 0.61 | VHE |
| 16 | Demonstrate working effectively in a team environment. | 4.46 | 0.62 | HE |
| 17 | Make use of word processor for grammar checking. | 4.57 | 0.59 | VHE |
| 18 | Make use of CorelDraw packages to represent a photograph | 4.56 | 0.60 | VHE |
| 19 | Present data in a variety of graphical formats | 4.57 | 0.63 | VHE |
| 20 | Solve a wide range of mathematical problems. | 4.56 | 0.64 | VHE |
| | Total Grand X Score | 4.54 | 0.69 | VHE |

Table 2 showed the mean and standard deviation on ICT problem-solving competency required for effective Business education programme. The cluster means of 4.54 falls within the range of Very High Extent. This indicates that ICT problem-solving competency is required to a very high extent for effective business education programme. The standard deviation of 0.69 which is relatively large showed that there is less degree of homogeneity in business educators' rating of ICT problem-solving competency requirements.

Hypothesis 1

There is no significant difference in the mean responses of business educators from Colleges of Education and business educators from Universities on the extent research competencies are required for effective business education programme.

Table 3: Summary of t-test analysis of the significant difference between Colleges of Education and Universities business educators on the extent research competencies are required for effective Business Education Programme

| Institution | X | S. | Df | t-cal | t-crit | Decisi |
|--------------------|----------|-----------|-----------|--------------|---------------|---------------|
| N | | D | | | | on |
| CoE | 4.6 | 1.1 | 94 | 2.8 | 1.671 | Sig. |
| 72 | 6 | 1 | | 9 | | |
| Varsity | 3.9 | 1.0 | | | | |
| 24 | 1 | 2 | | | | |

Table 3 revealed the t-test of mean difference between colleges of education and universities Business Educators on research competency required for business education programme. Since the calculated t-value of 2.89 is greater than the critical t-value of 1.67 at 0.05 level of significance and 94 degrees of freedom, the null hypothesis that there is no significant difference in the mean responses of business educators from Colleges of Education and business educators from Universities on the extent research competencies are required for effective business education programme is therefore rejected. There is significant mean difference between the two groups.

Hypothesis 2

There is no significant difference in the mean responses of male and female business educators on the extent problem-solving competencies are required for effective business education programme.

Table 4: Summary of t-test analysis of the significant difference between Male and Female Business Educators on the extent Problem-Solving Competencies are Required for Effective Business Education Programme

| Gende r | N X | SD | Df | t- cal | t- crit | Deci sion |
|--------------------|----------------|-----------|-----------|-------------------|--------------------|----------------------|
| Male | 43 | 4.51 | 0.69 | 94 | 1.67 | Reject |
| Female | 53 | 4.21 | 0.63 | 1.7 | 1 | ed |

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Table 4 showed the t-test of mean difference between male and female business educators on problem solving competency required for business education programme. Since the calculated t-value of 1.77 is greater than the critical t-value of 1.67 at 0.05 level of significance and 94 degrees of freedom, the null hypothesis that there is no significant difference in the mean responses of male and female business educators on the extent problem solving competencies are required for effective business education programme is therefore rejected. There is significant difference in the mean responses of the two groups.

Discussion of Findings

ICT Research Competencies Required for Effective Business TeacherEducation Programme.

Findings of this study revealed that business educators' perception of ICT research competencies for effective Business Education programme were required at a very high extent. The ICT research competencies involve the use of academic social network, allowing the user to chat and collaborate with other users worldwide. Educators need to manage references from other research tools such as Google Scholar; automatically

create a bibliography for the user as the user creates own papers; generate detailed and accurate citations when the user incorporates other papers into his research; and make information obtained from the Internet the most up-to-date.

In addition, business educators need to publish research information online and making it accessible from any location. They can search all manner of academic literature from journals and white papers to scientific articles and use plagiarism checker to guard against plagiarism. They can also use scan marker which is a portable digital OCR reader for optical character recognition and is a device that can 'read' a page of printed text and then convert it into usable data and read back what the user has scanned with Scan marker. This is in line with Comer in Ugwuogo (2013) who stated that network may link tens, hundreds or even thousands of computers, enabling them to share on information and processing power.

However, the null hypothesis that there is no significant difference in the mean responses of business educators from colleges of education and business educators from Universities on the extent research competencies are required for effective business education programme also was rejected. In other words, although there was high rating for ICT research competencies generally, there was marked difference in the ratings of Business educators in the universities and their counterparts in the colleges of education. Business educators from the colleges of education have higher perception of ICT research competencies. The findings on the higher perception of colleges of education business educators agreed with earlier study by Ikemba (2017) who observed that both the students and teachers of colleges of education have a high level of internet surfing competencies to make them successful in their chosen careers.

ICT Problem-Solving Competencies Required for Effective Business Teacher Education Programme.

Findings of this study revealed that business educators' perception of ICT problem-solving competencies for effective Business Education programme were required to a very high extent. These competencies include to: identify and define problems in an organizational context; select

and apply various ICT tools and techniques to solve organizational problems; build a solution to address an organizational problem; evaluate the effectiveness and viability of an ICT solution from an organizational value perspective; and demonstrate working effectively in a team environment. Others are to make use of word processor for spell checking and grammar checking; make use of CorelDraw packages to represent a photograph, manipulate the photograph and change certain features; present data in a variety of graphical formats, such as line graph, bar graph, or in the form of graphs of two- and three-dimensional mathematical functions; and solve a wide range of mathematical problems. This is in line with Danner and Pessu (2013) who stated that through computer assisted instruction, problem situations can be presented to students to guide their thinking, respond to their questions and also manage their performance.

Business educators however differed by gender in their ratings of problem-solving competencies requirements in favour of the female. They also found that there was significant difference in the opinion of respondents based on their gender. Business educators perceive problem-solving skills as critical to ICT integration in Business education programme.

Conclusion

Information and Communication Technology (ICT) research and problem-solving competencies are required for effective Business education programme in tertiary institutions in Anambra State. Though, there are variations in ICT competences based on gender and type of institution, there is general perception that ICT research and problem-solving are required for effective Business education programme.

Recommendations

In view of the findings of the study, the followings are recommended:

1. Nigerian Universities and Colleges of Educations should introduce ICT literacy as a full-fledged credit course in all levels of their curriculum programmes and make it a core course. This will go a long

way to equip prospective teachers with requisite ICT skills before employment and also make them competent in the use of ICTs.

2. The universities and Colleges of Education should also develop motivational strategies such as ICT scholarship award/grants to staff who distinguished themselves particularly in related areas of ICT to encourage them to be responsive to ICT literacy.
3. Government and school administrators should assist Universities and Colleges of Education with the provision of enough ICT facilities/tools which will enhance the teaching and learning as well as create avenues of business educators attending on the job training, Workshops, Conferences on ICT development.
4. Business educators should help themselves in upgrading their ICT knowledge and skills by embarking on research as well as devote their times and resources in attending ICT training without waiting for government sponsorship for their professional advantage.

REFERENCE

- Adegbemile. O. (2012). Information and communication technology (ICT) availability and utilization in management of secondary schools in Kaduna State. *Nigeria Journal of Education and Social Research*. 2 (7), 225 -236.
- Adeleke, K. & Oladimeji, S. (2010). Information and communication technology and achievement of the millennium development goals: Problems and prospects. *Kaba Journal of Science Education, Gashua*, 2 (2), 22-33.
- Akazeze, P., Nebo, J. & Akpan, H. G. (2016). Information and communication technology and education in Nigeria: Challenges and prospect. Okoye R.K, Eze, C.U & Oluwole M.U. (Eds.). *Information and Communication Technology and Education in Nigeria: Challenges and Prospect*. 267 - 282.
- Danner, R.B. & Pessu, C. O. A. (2013). A survey of ICT competencies among students in teacher preparation programmes at the University of Benin, Benin City, Nigeria. *Journal of Information Technology Education Research*, 2 (1), 15-28.

- Ejar, B.F., Eni, E.B. & Ekwere, M.R. (2016). Integrating of information and communication technology (ICT) in mathematics/chemistry teaching and learning in Nigeria for global competitiveness. Okoye R.K, Eze, C.U & Oluwole M.U. (Eds) *Information and Communication Technology and Education in Nigeria: Challenges and prospect*.35-48
- Frensch, P. & Funke, J. (2015). *Complex Problem Solving: The European Perspective*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gallemard, J. (2023), *the Basics of Knowledge Transfer: A Beginners's Guide*. Blog.smart-tribune.com.blob
- Giwa, F.B. (2020). Business teacher education: roles, issues, and challenges for enhancing sustainable development goals. *Journal of the Association of Business Educators of Nigeria* ,7 (1), 537-552
- Ile,C.M. & Ukabam, J.A (2020). The role of e-learning in ensuring the continuation of training in business teacher education programme during the COVID-19 pandemic and beyond in Nigeria. Conference Proceedings. *Journal of the Association of Business Educators of Nigeria* ,7 (1), 518-527
- Ikemba, S. (2017). ICT competencies and teachers' education programme in colleges of education (A case study of FCT, Zuba). *ACET Journal of Computer Education and Research*, 2(1). Retrieved from <https://acet.ecs.baylor.edu>, pdf. On February 28, 2019.
- Ngcareers (2019). Career Opportunities for Business Studies Graduates. Retrieved on 28/4/2019 from <https://ngcareers.com/course/496/business-studies>
- Nwana, O.C. (2015). *An introduction of research in education*. Lagos: Heinemann.
- Nworgu, B.G. (2015). *Educational research: Basic issues and methodology*. Ibadan: Wisdom Publishers
- Okeke-Ezeanyanwu, J.A. (2021). Improvement of employability skills of business education students in public tertiary institutions in Anambra State for sustainable development. *International Journal of Education Humanities and Social Science*, 4 (3), 1- 13. <http://ijehss.com> 03;

- Ugwuogo, C.C. (2013). *Status of e-teaching and e-learning in business education department in colleges of education in Enugu and Anambra States*. (Ph.D. Dissertation), Ebonyi State University.
- Ugwuogo, C.C., Ugwuogo, F.C. & Nzeribe, P.U. (2019). Employment generation through business education in Nigeria: prospects and challenges. *Journal of Business and General Education (BUSGEN)*. 1 (8), 57 – 65.
- Uranta, A. B. (2019). Extent of acquisition and utilization of information and communication technology (ICT) competencies among business education lecturers in Rivers State. *Association of Business Educators in Nigeria (ABEN). Conference Proceedings*. 6(1), 604-614