IMPACT OF E-LEARNING TECHNOLOGIES ON ACADEMIC PERFORMANCE OF BUSINESS EDUCATION STUDENTS IN TERTIARY INSTITUTION STUDENT.

(A CASE STUDY OF TAI-SOLARIN COLLEGE OF EDUCATION IN ODOGBOLU LOCAL GOVERNMENT AREA OF OGUN STATE)

BY

ADEONA DAMILOLA AYOMIKUN

MATRIC NO:-17012501103

COMBINATION: BUSINESS EDUCATION

A PROJECT SUBMITTED TO THE
DEPARTMENT OF BUSINESS EDUCATION,
SCHOOL OF VOCATIONAL AND TECHNICAL EDUCATION,
TAI SOLARIN COLLEGE OF EDUCATION OMU- IJEBU OGUN STATE.

IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF NIGERIA CERTIFICATE IN EDUCATION (N.C.E) IN BUSINESS EDUCATION.

JANUARY, 2021.

CERTIFICATION

I certify that this project was carried out by **Adeona Ayomikun Damilola** with Matriculation Number **17012501103** in Business Education Department, School of Vocational and Technical Education under the supervisor,

_____ _____

DR B.R OLUWASINA ***DATE***

Project Supervisor.

_____ _____

Mr. Y.A AKINDE. ***DATE***

Head of Department

DEDICATION

This project is dedicated to the glory of Almighty GOD, the beginning and the end, the Omnipresence, Omniscience and the Omnipotent, Rock of ages, to him be all the glory, honour and adoration. I bless his name for spearing my life and delivering me from all dangers encountered during the course of my study.

ACKNOWLEDGEMENT

I am grateful to God for sparing my life, right from birth till the present moment, I say big thanks to God. I bless His name for seeing me through this NCE programme for what he has done for me financially, academically and in all areas blessed be his holy name.

My profound gratitude goes to my Supervisor Dr B.R. Oluwasina for her interest in the study encouragement and monitoring throughout the research period, I say thank you Ma.

My sincere gratitude goes to my parents, Mr and Mrs ADEONA for their prayer, support financially, morally and loves throughout my academic period may Almighty God bless you and may you reap the fruit of your Labour, Thank you.

I will like to express my sincere appreciation to my siblings (Simioluwa Adeona, Ebunoluwa Adeona) for their prayer and support towards my academic period.

I will not forget to say a big Thank you to my big Mom (Mrs Adebanjo And Prof. Adeyemi) for their encouragement toward this project God bless you. I love You.

Lastly my gratitude goes to someone special to me Adufe Tobiloba, Sodiq, Ayomide Sorinola and Prince Elijah Silvanus, God bless you friends.

ABSTRACT

The introduction of multimedia technologies and the internet in learning has been observed as a means of improving accessibility and quality of delivery and learning among the students and teachers in private Secondary Schools and tertiary institutions in Nigeria. Thus, e-learning is a new paradigm shift in educational sector for the purpose of advancing the knowledge base. The beginning of 21st Century has heralded the educational technology that has facilitated e-learning among tertiary institutions in the developing countries. Both primary and secondary data shall be utilized in the study. Structured and unstructured interviews with some staff and students of the selected tertiary institutions will be conducted. This is necessary so as to obtain qualitative data on their e-learning experiences as well as the understanding of the usage. The Tertiary institutions websites will be assessed so as to elicit information on their learning management system which is crucial for this study. Questionnaires will be administered to the students in order to elicit information on their experiences on e-learning. This study in its purpose employs descriptive design in its procedural approach. The method of data collection entails a survey study conducted by the researchers using the questionnaire as the research instrument. This provides opportunity of the researchers having a direct contact with the target population in a bid to obtain vital information necessary for a thorough study of this kind. The survey method also provides the researchers with the privilege of obtain "first hand' information and having a personal interview with the key players in the field or area of focus by the researcher. The descriptive design is utilized to analyze the characteristic of the respondents and the number of participants that responded to a particular issue of concerned being addressed the current study. The impacts of e-learning in facilitating academic performance were examined using regression analysis based on the testable hypothesis based on the study objectives. Analysis of the result from the study provides evidence of significant impact of e-learning in facilitating academic studies and self-development resulting to improved learning process and high academic performance. The therefore recommends that more effort should be made by the management of secondary schools and tertiary institutions in providing a e-learning facilities in their institutions and students should be encouraged to make a proper use of these facilities by given them e-learning related assignment and projects.

TABLE OF CONTENT

CHAPTER THREE

CHAPTER ONE

1.1 Introduction to the Study

According to Udokang (2006), education is the provision of opportunity for a child to realize his/her potentials, goals and abilities in life. Education includes the acquisition of functional skills, moral identity; and attribution to succeed in life and thereby improve the society (Fareo, 2012). The yearnings, needs, aspirations as well as the cultural heritage and environment of any society determine, to a large extent the kind of knowledge and skills to be acquired (Adebosin, 2004).

Higher education is regarded as an instrument of social, political and economic development. The products of higher education in any nation will determine the development of such nation. Therefore, higher education contributes to national development through high level relevant manpower training; in order to acquire both physical and intellectual skills which enable individual to be self-reliant and useful members of the society (FRN, 2004).

Present day teachers as curriculum implementers are faced with several challenges ranging from lack of motivation, training, poor infrastructure, and access to resource materials. Of all these, the worst is the lack of access to learning resources because it has direct impact on the teacher and the learner. An ill-informed teacher is bound to produce ill-informed learner. The result of situations like this is the fallen standard of education being experienced in Nigeria today. Ladi Dlakwa and Hadiza Isa Bazza (2010) observed that for teachers to be able to motivate learners, they must themselves be well equipped; otherwise they

will produce poor quality students. Ugwu and Ohimekpen (2010) opined that it is through quality education that Nigeria can overcome her multi-dimensional problems which invariably include poor academic performance of students.

E-learning as part of ICT has been defined by several authors and researchers all over the world. Nwana (2012) described e-learning as the wholesome integration of modern telecommunication equipment and ICT resources, particularly the internet, into the educational system. In other words, the concept of e-learning is interwoven with the concept of ICT: both been inseparable entity. According to Leonard (2013), e-learning simply means electronic learning. This means that e-learning is done through the use of electronic devices. He went on to say that e-learning comprised of all forms of electronically supported learning and teaching. Hedge and Hayward (2004) defined e-learning as an innovative, approach for delivering electronically mediated, well organized ,learner centered and interactive learning environment to anyone, anytime, anywhere. This definition is interesting in two ways: First, e-learning is learner centered; and secondly, irrespective of whom, when, and where, learning can take place. E-learning is the use of electronic technology to deliver education and training applications, monitor learners performance and report learners' progress. The above definition underscored the relevance of monitoring and evaluation of learners' performance and progress. It also demonstrated that e-learning is learner centered. Learning, according to Rosenberg (2001), is the process by which people acquire new skills or

knowledge for the purpose of enhancing their performance. E-learning is also described as intentional use of networked information and communication technology in teaching and learning which include terms such as: online learning, virtual learning, distributed learning, network and web based learning (Pushpanathan 2012).

Olaniyi (2006) defined e-learning as the convergence of the internet and learning or internet- enabled learning. Anowor (2002) synchronized the various definitions of e-learning into four: - The use of all forms of electronically supported learning and teaching, - The use of technology to enable people to learn anytime, anywhere, - The use of ICT in developing skills as well as concept based knowledge, and - The use of instructional media in form of texts, images, animations, video and audio devices. The relevance of e-learning resources to the teacher as a curriculum implementer in the present digital age cannot be over stated. The basic mission of e-learning is to transform the old methods and approaches to curriculum implementation (Nwana 2012).

With the advent of ICT and its related components, the face to face method teaching and learning in a classroom where the entire process of curriculum delivery is centered on the teacher is no more in vogue. Education (teaching and learning) is simplified through the use of e-learning resources. The use of ICT involves effective teaching and learning with the assistance of computer and other information technology acting as aids which performs the complementary functions in the teaching and learning environment. This is in

agreement with Salawudeen(2010) who is of the view that the advances in the communication and computer technology have culminated in the supplementation and near phase out of the traditional educational delivery system. The new technologies allow for more flexibility in and a wider reach for education in many countries. Not only has it widen the scope and extent of learning, it has also simplified the content. In concrete terms, ICT instructional aids media has enhanced teaching and learning through its dynamic, interactive and engaging contents. It has provided real opportunities for individualized instruction (Japheth, et al.,2013)

The role of e-learning facilities in teaching and learning has become one of the most important and widely discussed issues in contemporary education policy**.** E-learning is an important factor in this information age so much so that when properly adopted and applied holds a great promise to improving teaching and learning in educational institutions. It is an important instructional tool to facilitate the transfer of many types of information and an effective means of communication in schools and colleges. E-learning or Internet-based instruction has been manifested in one-to-one (teacher-to-student), one-to-many (teacher-to-group) and many-to-many (group-to-group) approaches to instruction (Webb, Jones, Barker & Schaik, 2004).

E- Learning is the application of a whole range of technologies involved in information processing and electronic communications, such as computers, internet, e-mail, computer software, satellite, mobile communication gadgets, and

other allied electronic devices for dissemination of knowledge and information. It involves the application of computer and information technology in teaching and learning. According to Adesoji (2012), e-learning comprises computer and ICT materials and applications, which aid information collection and dissemination, research and global exchange of ideas that are critical for advancing meaningful, educational initiatives and understanding issues related to global development. The introduction of e-learning facilities to the education systems is aimed at improving educational delivery and preparing students for a role in an information age.

Application of e-learning facilities provides productive teaching and learning in order to increase people's creative and intellectual resources especially in today's information society and gives ample and exceptional opportunities to the teachers and students to develop capacities for high quality learning and to increase their ability to innovate (Aduwa-Ogiegbaen & Iyanmu, 2005).

Ozioma and Offordile (2011) stated that teachers are able to fashion a focused and relevant assignment for discussion between students and teachers, and among students through e-learning devices. Abidoye (2010) maintains that e-learning devices such as the web, internet, multimedia, computer, projector, television, etc provide easy access to quality learning materials and make reasonable and responsible contributions to the learning process. The Federal government of Nigeria in an attempt to brace up to the contemporary world in

computer education, in 1988, enacted a policy on education which was to establish pilot schools and thereafter diffuse the innovation first to all secondary school and later to the primary schools in the country. Furthermore, the importance of ICT in curriculum implementation is recognized by the Nigeria Policy on Education where it stated that the government shall provide facilities and necessary infrastructures for the promotion of ICT and e-learning (NPE, 2004).

Osuala (2009) observed that technology has the capacity to change the role of the lecturers. Lecturers now act more as resource persons or facilitators, meeting such learners as continued contacts with peers, increased guidance, feedback and opportunities to apply acquired skills. Nana (2000) is also of the view that c-learning provides the relevant platform for lecturers to develop capacities for high quality research and teaching which increase their ability to innovate.

Osuala (2009) observed that technology has the capacity to change the role of the teacher. Teachers now act more as resource persons or facilitators, meeting such learners as continued contacts with peers, increased guidance, feedback and opportunities to apply acquired skills. Nwana (2009) is also of the view that e-learning provides the relevant platform for teachers to develop capacities for high quality research and teaching which increase their ability to innovate E-learning resources are of great importance to the learners. The introduction of e-learning facilities into the education system is aimed at improving

educational delivery and preparing students for a role in an information age (Amedu, 2014).

As a future leader, the student needs a sound educational foundation in order to cope with the ever changing world. In the words of Kirsh, (2002), e-learning can improve retention, provide immediate feedback and allows learners to customize learning materials to meet individual needs. In addition to the above, access to online journals is made possible through e-learning. Students and teachers get a better chance of reaching out to books, journals made available on the internet. A broader interaction is gotten from the outside world through interaction on the internet (Edna, 2013).

E-Learning resources are of great importance to the students. The introduction of e-learning facilities into the education system is aimed at improving educational delivery and preparing students for a role in an information age (Amedu. 2014). As a future leader, students need a sound educational foundation in order to cope with the ever changing world.

In the words of Kirsh (2002), e-learning can improve retention provide immediate feedback and allows learners to customize learning materials to meet individual needs. In addition to the above, access to online journals is made possible through e-learning. Students and teachers get a better chance of reaching out to books, journals made available on the internet.

1.2 Statement of the Problem

In recent times, greater attention has been given to e-learning and the richness of its content and resources, especially in the area of teaching and learning

The IT revolution especially in the area of internet and computer technology has heralded the development and implementation of new and innovative curriculum delivery strategy in the education sector. Oye, Iahad, Madar & Ab.Rahim (2012) emphasize that the growth in internet technology and its application in education have brought great transformation which has made teaching and learning less burdensome, effective and result oriented by providing avenue for sharing idea and information.

Well researched and packaged teaching materials can be prepared by teachers and delivered to students using e-learning devices such as power point presentation, video tutorials, e-books, computer based training and web based training. However, unavailability of these devices to the lecturers when required poses a problem. In a developing country like Nigeria, availability and application of these e-learning infrastructures are a far cry from what obtains in other advanced societies and therefore poses a challenge to the educational sector.

There is therefore the need to enrich the effect of e-learning technologies toward teaching and learning process in tertiary institutions in Nigeria, most especially in Tai Solarin College of Education.

1.3 Objectives of the Study

The broad objective of this research is to examine the impact of e-learning technologies on academic performance of Business Education students in tertiary institutions in Nigeria using Tai Solarin College of Education as a case study. Specific objectives are:

1. To examine the concepts of E-Learning?
2. To point out the benefits of using E-learning on the academic performance of students tertiary institutions?
3. To investigate the teacher's roles/competence in utilization of e-learning application?
4. To examine the barriers to the effective use of e-learning in teaching and learning in tertiary institutions?
5. To proffer solutions to these barriers?

1.4 Significance of the Study

The study would be beneficial to students, teachers, religious instructors, curriculum planners, educational administrators, researchers and textbook authors.

To students, the study would help to improve their understanding and thus adjust properly in the society through active participation in the classroom leaning which stimulate their interest and change the negative perceptions they already have in learning and this invariably help them to develop the affective domain of

knowledge in tertiary institutions. They would equally perform better in their examinations without depending on examination malpractice which have been the problem in the educational sectors. This is because the student stands a chance of becoming masters on their own through involvement in different roles in the classroom.

The findings of the study would help lecturers to have an insight into the meaning, application and problems of using e-learning technologies of teaching and thus change their method when the need arises for proper students' achievement and interest in tertiary institutions.

Finally, the textbook authors on education would benefit from the study by updating their knowledge on the techniques and besides disseminate the finding through textbooks they publish.

1.5 Research Questions

These are the research questions formulated for this study:

i. What are the benefits of e-learning to academic performance of Business Education students?
ii. How can e-leaning enhance the academic performance of Business Education students?
iii. What are the roles played by Business Education lecturers in utilization of e-learning application?

iv. What are the barriers to the effective use of e-learning in teaching and learning of Business Education?

v. What are solutions to these barriers?

1.6 Research Hypothesis

These are the research hypothesis formulated for this study:

Ho_1: There is no significant impact of e-learning on academic performance of Business Education students in tertiary institutions in Nigeria.

Ho_2: There is no significant challenge of E-learning on academic performance of Business Education students in Tai Solarin College of Education.

1.7 Scope of the Study

This study will focus on the impact of e-learning technologies on academic performance of Business Education students in tertiary institution students in Nigeria: A Case study of Tai Solarin College of Education.

1.8 Limitations to the Study

A study of this nature cannot be completed without the researcher experiencing some constrains. The first major limitation of the study experienced by researcher was lack of time. This is due to the fact that both academic course works and the study are taking place simultaneously.

1.9 Definition of Terms

These are some of the terms used in this study:

i. **Business Education:** It is the intellectual and vocational preparation of people for earning a living in the contemporary industrial and business environment.

ii. **E-Learning:** This is an innovative approach for delivering electronically mediated well organize learner centered and interactive learning environment to anyone, anytime, anywhere.

iii. **Learning:** This is the process by which people acquire new skills or knowledge for the purpose of enhancing their performance.

iv. **Academic performance:** Academic performance is defined or regarded as participants' examination grades at the end of a given duration (term, semester, programme). It could also be seen as the level of performance in a particular field of study.

CHAPTER TWO

2.0 Literature Review

E-learning in learning and education refers to the use of modern technologies such as computers, digital technology, networked digital devices (e.g. the internet) and associated software and course ware (Wikipedia, 2014). E-learning as opposed to distance learning is a term that is used to refer to all ICTs, networks, internet and other forms of electronic media that can be used to enhance teaching and learning so as to transfer knowledge and skills (Kassa & Balunywa, 2013). E-learning is an inclusive term that describes educational technology that electronically or technologically supports learning and teaching (Wikipedia, 2014). Parks (2013) suggested that “e-” should refer to “everything, everyone, engaging and easy” in addition to ‘electronic’. Developments in internet and multimedia technologies are the basic enablers of e-learning, with consulting, content, technologies, services and support being identified as the five key sectors of the e-leaning industry (European Commission, 2000).

Regardless of the educational level or stage e-learning can be adopted, used or applied in the education for effective teaching and learning. E-learning is a learner-controlled, self-paced education environment where the learner has authority over the learning environment; thereby allowing learners to work at their pace, convenience (Eke, 2011). The changes in education have led to a paradigm shift from teacher centredness through to learner centredness (Kassa & Balunywa, 2013).

The extent to which e-learning assists or replaces other learning and teaching approaches is varied ranging on a continuum from none to fully online distance learning (Bates and Poole, 2013). Daniel (2009) observed that e-learning plays an important role in professional development for adults in the workforce. As the world strives to meet development goals, there is increasing recognition of the potential of e-learning to meet growing educational challenges. The development of information technologies makes the increasingly wider application of multimedia in education possible. According to Tamas and Vauthier (1996), despite the high cost of the systems and their use, multi-media education builds on the basic principles of individual learning, interactivity and freedom of learning in terms of time space and pace. E-learning is defined by OECD (2011), as the use of ICT to enhance and support learning in tertiary institutions. They argued that e-learning covers a wide range of systems, from students using e-mail and accessing work on-line while following a course on campus to programmes offered entirely on-line.

According to Stockley (2006), e-learning is the delivery of a learning training or education programme by electronic means. Stockley (2006) argued that e-learning involves the use of a computer or electronic device (for example, a mobile phone in some way to provide training, educational or learning materials). It also involves the use of internet; an intranet. CD – ROM and DVD can be used to provide learning materials.

Bassey (2007) cited in Eteng and Ntui (2009) investigated the Nigerian graduating students' access to e-learning technology in Universities in South-South Nigeria. Results of the survey indicate that the number of graduating students in Nigeria higher institutions who have access to e-learning technology was negligible. Another survey was conducted by (Akuchie, 2008) in five universities in North Central Zone of Nigeria. The finding revealed that lecturers and students are not literate in the use of most aspects of information and communication technology (ICT). According to Akuchie, (2008), most e-learning facilities are not available in the universities and where they exist, they are either not functional or inadequate and lecturers and students do not employ ICT facilities for teaching and learning.

Kamba (2009), writing on the problem of implementing e-learning technologies in Nigerian institutions, argued that investment and commitment to develop an e-learning application is very poor and below expectations in the institutions. Evarest and Laura (2011), in their study on learning electronically in Nigerian universities, revealed that the e-learning facilities were inadequate and students' access to these facilities is very negligible. They also revealed some inhibitors to the use of e-learning facilities which include power outages, obsolete e-learning facilities, lack of skilled manpower and poor infrastructure and recommended that government should show more political-will by increasing the financial resources available to the universities especially in the area of e-learning facilities which is capital intensive, among others.

Sam (2011) argued that e-learning is a logical and strategic approach to achieve the technological transformation of Nigeria, adding that the deployment of ICT is critical in the implementation of education road map, which is designed to revamp the education sector.

According to Sam (2011), e-learning is expected to redefine education, for example, the classroom will no longer be demarcated by brick walls rather "students can communicate with their teachers from their bedroom or wherever they are, especially during strikes, while housewives can receive lecturers from their kitchen without having face-to-face interaction with their teachers. He also identified infrastructural unavailability as the bane of e-learning in Nigeria especially with the erratic power supply situation compounded by lack of access to technology.

In another study conducted by Agboze, Ugwoke and Onu (2012) in the universities in South-South and South-Eastern geopolitical zones of Nigeria on the utilization of e-learning technology resources in instructional delivery, it was found that e-learning technology resources were not extensively utilized in teaching due to many constraints which include shortage of qualified staff with e-learning application, lack of e-learning facilities and infrastructure in the university. Nwana, (2012), writing on the challenges in the application of e-learning in secondary schools in Onitsha North Local Government Area, Anambra State, Nigeria, revealed that acute shortage of e-learning materials such as on-line/internet-connected computers, e-mail facilities, multimedia television,

multimedia computer and digital library were major constraints. It was also revealed that the few available ones such as off-line/ordinary computers, scanners, printers and ready-made courseware are not utilized because the teachers lack the knowledge and skills of computer application. The only material identified as available and in use is the telephone. It was recommended, among other things, that government should embark on massive computer training programmes for teachers, and that teachers should be trained and retrained through in–service training, seminars, workshops and conferences for the acquisition of the knowledge and skills needed for e-learning application in secondary schools in Nigeria.

Today, most teachers and students in the industrialized nations such as the United States and the European Union have easy access to ICT and the use of computers for teaching and learning (Harper, 1987). In Africa, concerted efforts have been made by many governments to initiate internet connectivity and technology training programs. Such programs link schools around the world in order to improve education, enhance cultural understanding and develop skills that youths need for securing jobs in the 21st century (Aduwa-Ogiegbaen & Iyanmu, 2005). The innovation of e-learning has brought about rapid changes in research and teaching, which cannot be simply ignored.

Lau-Ho (2005) in his work noted that e-learning facilities are useful as a tool for curriculum delivery, assessment, research, and hands-on experience. The study stated further that home economics teachers need to use e-learning to

facilitate curriculum delivery, practical lessons, and follow-up of students' learning activities. The study stated that teachers, can download relevant lesson plans for use in curriculum delivery, obtain on-line tests and quiz samples, guide students to read learning material on screen e.g files, links, and even use computer simulations for demonstration lessons.

Aburime and Uhomoibhi (2010) observe that global interconnectedness enabled by information technology calls for new skills, knowledge and ways of learning to prepare students for living and working in the 21st century. Okoroh (2006) opines that e-learning facilities do not only help students but they also assist teachers in the preparation of teaching materials demonstration of equipment and concept.

In a rapidly changing world of e-commerce, e-government, e-banking, etc, it has become necessary for individuals and educational institutions to imbibe the culture of e-learning to have the capacity and capability to access and apply information in the global village

In fact, UNPAN (2005) cited in Archibong and Ugwulashi (2012) highlighted poverty, low level of literacy, inadequate infrastructure, high cost of ICT services, lack of investments, poor institutional structures, absence of international cooperation and lack of security (in that order) as the major barriers to achieving an information society in developing countries.

2.1 E-Learning Policy Framework in Nigeria

For a very long time successive governments in Nigeria have consistently formulated Policies which were directed towards ensuring that there are equal and adequate educational opportunities at all levels. As far back as 1977, Government began searching for alternative models to the traditional conventional system, which was rather restricted and limited in scope. In response to the need for a more elastic and accessible model of education, Government opted for a semblance of e-teaching and e-learning educational system.

Thus, it can be said that the foundation of e-learning educational system in Nigeria was laid through the National Policy on Education of 1977, subsequently revised in 1981. The current National Policy on Education (NPE) recognizes the place of e-learning educational system in achieving lifelong education and affirms that lifelong education shall be the basis of the nation's education policy. It went further to state that at any stage of the educational process after junior secondary education, an individual shall be able to choose between continuing full-time studies, combining work with study, or embarking on full time employment without excluding the prospect of resuming studies later. This envisaged the development of e-teaching and e-learning educational programs in the country.

The NPE defined e-learning educational system as the mode of teaching in which learners are removed in time and space from the teacher. It uses a variety of media and technologies to provide and/or improve access to good

quality education for large number of learners wherever they may be. According to the NPE, the goals of e-learning educational system are to:

i. Provide access to quality education and equity in educational opportunities for those who otherwise would have been denied.
ii. Meet special needs of employers by mounting special certificate courses for their employees at their work place.
iii. Encourage internationalization especially of tertiary education curricula.
iv. Ameliorate the effect of internal and external brain drain in tertiary institutions by utilizing experts as teachers regardless of their locations or places of work.

2.2 National Information Technology Development Agency (NITDA) ICT Policies

Nigeria started implementing its ICT policy in April 2001 after the Federal Executive Council approved it by establishing the National Information Technology Development Agency (NITDA), the implementing body. The policy empowers NITDA to enter into strategic alliances and joint ventures and to collaborate with the private sector to realise the specifics of the country's vision of, "making Nigeria an IT capable country in Africa and a key player in the information society by the year 2005 through using IT as an engine for sustainable development and global competitiveness." This vision is yet to be fulfilled. Outlined below are some of the objectives of Nigeria's ICT policy:

i. To ensure that ICT resources are readily available to promote efficient national development

ii. To guarantee that the country benefits maximally, and contributes meaningfully, by providing the global solutions to the challenges of the Information Age.

iii. To empower Nigerians to participate in software and ICT development

iv. To encourage local production and manufacture of ICT components in a competitive manner

v. To establish and develop ICT infrastructure and maximize its use nationwide.

vi. To empower the youth with ICT skills and prepare them for global competitiveness.

vii. To integrate ICT into the mainstream of education and training

viii. To create ICT awareness and ensure universal access in promoting ICT diffusion in all sectors of national life.

ix. To create an enabling environment and facilitate private sector (national and multinational) investment in the ICT sector.

x. To encourage government and private sector joint venture collaboration

xi. To develop human capital with emphasis on creating and supporting a knowledge-based society.

xii. To build a mass pool of ICT literate manpower using the NYSC, NDE, and other platforms as a train-the-trainer scheme for capacity-building.

2.3 Fundamental reasons for E-teaching and E-Learning

As the e-teaching and e-learning keeps growing an increasing amount of learning activities can be expected through interactivity within the academia and the e-teaching and e-learning materials (Zheng & Ferris, 2008). Therefore the application of e-teaching and e-learning in Nigerian educational system cannot be far from the following especially in consideration of the onset proposal for redesigning the minimum standard for Nigerian tertiary institutions. The e-teaching and e-learning facilities when judiciously and fully implemented would:

i. Reduce and/or eliminate the costs for instructor fees and materials to certain level.
ii. Reduce time of learning and the time employee's absence from duty.
iii. Increased retention and enhanced hands-on application unlike traditional methods.
iv. Help managed instruction and progress via portal.
v. Make easy use of multimedia in practice and assessment according to learners' abilities.
vi. Allow for automated monitor of user's progress with supervisor and teachers.
vii. Be highly interactive as it engages users and pushes them than pulling them to progress.
viii. Help fast learners go with their speed in any course and avoid redundancy.

ix. Make slow learners go on their own pace by eliminating frustration with themselves, their fellow learners, and the subject matter.

x. Make knowledge cumulative as lessons are built consecutively and more flexible.

xi. Make learning takes place anytime-anywhere and greatly increases knowledge retention.

xii. Assist e-learners create, have access, view, modify and print or send documents.

xiii. Enhance evaluation as it become self-paced because e-learning is a networked phenomenon.

xiv. Make easy delivery of content using standard Internet technology as it enhances surf ability.

xv. E-learning supersedes training and instruction as it is a tool that improves behavior performance.

The benefits of e-learning are many. It may as well including cost-effectiveness, enhanced responsiveness to change, consistency, timely content, flexible accessibility, and providing customer value (Olomo, 2001).

2.4 Benefits of E-learning to Learning to Business Education Students

According to Oyangbeku and Ajibola in Ikenga, Nwachoko and Nwalado (2010) e-learning have the following merits:

- It helps the Business Education Students to learn when and where they want at their own pace.

- E-learning provides learning opportunities for Business Education Students;

Nwokike (2011) also articulated the importance of e-learning to includes:

- Facilitates the task of the Business Education lecturers by promoting their performance;
- Business Education Lecturers and students can study at their own pace through e-learning;
- Electronic learning reduces the stress inherent in the conventional classroom work for both Business Education lecturers and students;
- It facilitates access to existing knowledge and skills; and
- It saves the learner and teachers huge amount of energy and time.

Ezoem and Akiti, (2010) in Nwachoko, Ikenga and Nwalado (2010) listed the following benefits of e-learning which include viz:

- Payless per credit hour;
- Reduce overall learning time;
- Spread learning over extended period of time;
- Access course from a variety of locations;
- Participation in class activities when convenient;
- Book-mark progress (Computer- remembering where the student left-off so they can resume the courses from there.

Nwokike (2011) thus summarized the merits of e-learning as follows:

i. Electronic learning is both convenient to the lecturers and the learner,
ii. E-learning is flexible. Learning can take place anywhere and anytime;
iii. Students enjoy having the opportunity to learn at their own pace, and their own time; and
iv. It helps students to develop knowledge of internet.

2.5 Business Education Lectures' Roles in Utilizing E-learning Applications

As the world is increasingly getting technologically driven, globalized, competitive and competent based, the roles of lecturers for e-learning programmes becomes critical. Just as the students need media competence to manage knowledge independently, teachers on the other hand, according to Osuala (2009) have to be willing to structure content differently and really put the students at the centre of attention. In this case, the lecturer's role has to change from provider of information to information broker and coach. Technology definitely changes the role of the lecturers. Now teachers act more as a resource person or facilitator, meeting such learners as continued contact with peers, increased guidance feedback and opportunities to apply acquired skills (Osuala, 2009).

To perform these roles, enjoy the usefulness of e-learning and apply it efficiently and adroitly in teaching, lecturers should have mastering of operating

educational hardware. They should have mastery of the keyboards, possess the ability to surf the internet in order to upload and download instructional materials, to access the back-end database, to handle all the learning materials and assessment, and also should possess the competencies of knowing where to apply e-learning.

2.6 Business Education Lectures' Competence in Utilizing E-learning Applications

Uzodimma (2006) however pointed out that the problem we have in the in Nigeria is lack of the competencies of utilizing the computer and operating other educational software using keyboard and connecting to the internet to surf information on education. Based on this, lecturers using e-learning applications have to be trained in ICT, administration and management of e-learning applications and ability to provide academic counseling to learners via e-learning. Undoubtedly, e-learning as an internet based learning demands new skills for effective teaching and learning. The lecturers would need more training in the effective use of technology and stronger pedagogic and androgogic skills for e-learning.

The new role of lecturers as a facilitators, collaborators, coach and mentor according to Anderson (2005), requires that all the lecturers should be trained to be familiar with e-learning experience as part of ongoing professional development. No matter the stage development one has reached in the use of e-

learning technologies, he/she still needs training. The reason being according to White (2003), that there are new ways of storing and manipulating data/information that would necessitate further development of the lecturers.

Business Education Lecturers should be trained to acquire the skills that are pre-requisite for the e-learning application such as skills in the setting up computer, skill of application of Ms-Word, of application of MS-Power Point, of application of excel, of use of world wide web, of use of goggle search engine, skill of use of yahoo search engine, of mamma search engine , the skill of identification of web address, of use of e-mail, has the skill to download information, possess the skill of power point presentation, of the use of operating windows, of identification of computer peripherals.

Ngwoke and Numonde (2011) added that Business Education lecturers should have the ability to design education software to meet the specific needs and choose the electronic text to match with students' needs. The development of these skills are necessary because according to the organization for Economic Co-operation and Development (OECD, 2006), e-learning is becoming increasingly paramount in tertiary education and every university is increasing the provision of e-learning packages.

2.7 E-Learning Technologies and their Application

In Nigerian schools, the commonest type of e-learning adopted is in form of lectures note on CD-ROM which can be played as at when the learners desires. The challenge of this method is that the numbers of students per

computer in which these facilities are available are un-interactive as compared to when lectures are been received in the classroom. Some institutions adopted the use of intranet facilities; however, this is not well maintained because of incessant power problem and high cost of running generating set. Most students in Nigeria go to the cyber café but because there are people of diverse intension on the net at the same time, and the bandwidth problem, a multimedia interactive cannot be done.

Despite all these and other challenges facing e-learning in Nigeria educational institution, institutions such as University of Ibadan, Obafemi Awolowo University, University of Benin, University of Abuja, University of Lagos, National Open University of Nigeria among others have the facilities for e-learning. The number seems very low (compared to other parts of the world and the usefulness of the e-learning in the economy development) because of location of most institutions, bandwidth issue and mostly the challenge of electricity. Though most of the educational institutions (private and public) have started setting up their ICT centres for internet services alone without actually taking into consideration other components of e-learning centre

E-learning approach is fast growing not only in the advanced countries but in the Third world countries including Nigeria. E-learning is gradually becoming popular in Nigeria's tertiary institutions especially in Colleges of Education, and Universities. Most Colleges and Universities have satellite campuses where

distance learning or remedial programs are run for students who were not programmed for full-time studies.

It is obvious that lectures received by these students within few months of lecture contacts would not be adequate. In some Universities, Radio stations were established where lectures were broadcast to concerned students all over the state. E-learning has been encouraged for the purpose of making learning easier for students. Closed circuit television (CCTV), overhead projectors, slides, transparencies and magnifiers were made available to students for reading purposes. Computers with special devices for operating complex functions were made available to staff in Departmental and College offices.

Application of E-Learning Technologies

There are many e-learning settings and technologies available to use in College of education, each with their own advantages and applications. Often the best solution is a combination of technologies depending on the particular need and learning environment.

Multimedia Classroom

In a multi-media classroom, educational content is delivered to students in a one to-many approach. This is cost efficient per students, and can provide a large amount of educational resources to students. Classrooms would be equipped with a projector, screen (or large LCD), speakers and a classroom computer. The teacher could display various types of content that is housed either on the classroom computer or on the teacher's laptop or other device. The

teacher would be able to adapt and project various content (e.g., videos, Powerpoint slides, augmented reality, multimedia presentations, the teacher drawing a graph, etc.). A connected classroom would have wireless or wired communications to a “cloud” of resources. The lecturers would thus have access to a wide range of content from the library on the cloud. The computer housing the content could be locally based at the school (which would obviate the need for inter-school communications, and be reliable), at a district or national educational headquarters, or elsewhere. Connected multi-media classrooms would permit distant classroom teaching, in which a teacher in one school or from a studio could deliver live, interactive lectures to classrooms in other schools. The distant classrooms would need to be outfitted with video cameras and microphones, as well as projectors and speakers, to communicate with the distant teacher.

Computer Lab

A computer lab is among the most recognizable form of e-learning technologies. A computer lab usually consists of many single personal computer stations. This is a common arrangement found in schools throughout the world. There are many educational software packages available that could be installed for student use. Separate stations permit individual students to move at their own pace through material. Teachers can also lead students or student teams through guided exercises, with each following on their own station. Free computer time itself is a valuable educational resource.

Installing separate computers is an easy to set up, since it is simply single stations behaving independently. Computer labs can be, however, more expensive per student due to the individual computers and software licenses. They may also have higher power consumption demands, depending on the computer or device, necessitating low-cost power solutions. Multi-seat computing consists of using one powerful personal computer with extra video cards to support up to eight independent “seats” (each with its own monitor, keyboard and mouse running separately). They can be put in a computer lab for students or teachers to use, or in classrooms. There are several commercially available multi-seat operating system software options including by Microsoft and Linux. This system has the advantage of using much less power than other options. It is usually the least expensive per user as well.

Single Station, Personal Computers

A variety of types of single station devices are available.

i. ***Personal computer*** **(PC)**: A PC is a common approach for using computers in homes and offices. It consists minimally of a computer, one or two monitors, a keyboard and mouse. Each computer has its own operating system and software programs. From a setup and maintenance standpoint this type of system is advantageous. It is easy to maintain and does not generally require a specially trained computer technician to fix most hardware and software problems. However, if each student were to have a computer, this would be among the more costly options to

implement, particularly in rural areas reliant on solar power. This would be useful particularly for teacher stations or single stations in the back of classrooms.

ii. ***Micro Computer:*** A microcomputer is similar to a standard single station except that is uses a small form factor case with a generally slower processor. Power consumption can be much lower than a single station, and thus suitable when power is limited. The computers are, however, difficult to repair and may be prone to theft and overheating; the lifespan of these devices is not yet known. Software maintenance is similar to a standard single station.

iii. ***Laptop or Notebook:*** Laptops and notebooks are among the easiest educational solution to set up. They usually come with software preinstalled and only a power outlet is needed to begin using the system. The power consumption is low compared to a personal computer. Hardware maintenance can be difficult, but software maintenance is standard. One of the disadvantages is product lifespan; they are easy to steal and are prone to accidents (a spill on the keyboard can easily destroy it; new rugged laptops reduce this risk). New design and battery technologies are lengthening battery life in some machines. Laptops may be an excellent solution for teachers. Teachers could bring a laptop to work from home, and then connect it to the classroom projector.

iv. ***Small, Personal Devices:*** Small, personal devices such as tablets, smart phones and e-readers are similar in that they are all relatively new technologies. They are rapidly gaining popularity due to their declining price, large number of web-based software applications, powerful graphics, and enjoyment of use. Educational uses could include listening to audio lessons or audio books, gaming, watching videos, and reading. Writing is more difficult if the device doesn't have a keyboard. Schools and teachers can develop teaching material applications for mobile devices using existing software. An example of how rapidly this is occurring is that over 10,000 pieces of content (learning materials) for U.S. schools are already available from one Education Company. Nevertheless, the maintenance requirements and lifespan of smart phone and other small devices in difficult environments are not yet known. Similar to laptops, they can be easily lost or stolen, and are prone to accidents. A difficulty in adapting educational software is that the various brands and styles have different operating systems and screens, and each may require separate configuration. Their batteries need to be frequently recharged, but individual external solar panels could be used. The cost of Internet or telecommunications time for lecturers, students or schools may also be a limiting factor. Some of these challenges are being addressed by private companies and others who are designing engineering solutions and new software for the devices.

v. ***Mobile Phone/Smart Phone*:** Today, cellular Internet coverage is often available, even in rural areas (especially compared to broadband). With the rapidly declining cost and increasing features of mobile phones, there is potential to use mobile phones as a web based e-learning technology. They can also, for example, be used by students in the classroom as a virtual clicker (to answer questions teachers ask in class), or for games or quizzes by using text messaging interfaced to an instructor's computer or phone. They may be used as an e-reader, or for communicating with other students or teachers.

vi. ***E-Readers:*** E-Readers are becoming popular as a relatively low-power, inexpensive replacement for traditional textbooks. Their purchase price is declining. One e-reader could contain multiple textbooks or other readings, and the content could be easily updated. E-readers often have high resolution, monochrome screens making them good for reading text but not for multimedia applications. Where books are expensive, hard to find or need to be frequently updated, e-readers may be very useful. It would be easy to upload in-class "handouts" to student e-readers as well. Copyright agreements and revenue sharing would need to be arranged with the book's publisher.

2.8 Impact of E-Learning on Academic Performance of Business Education Students

All these show that e-learning is beneficial to corporation, education, lecturers and learners. E-learning applications ensure that teaching and learning are Information and Communication Technology (ICT) based. Some of the impact of e-learning on students' academic performance includes:

i. It enables Business Education students to have equal opportunity with their contemporaries in other parts of the world;

ii. It could be used to introduce an interesting variety of the inventory of instructional materials in the school system such as lecture notes, diagrams, pictures and textbooks;

iii. It exposes Business Education students and lecturers to basic skills in computer education for the purpose of accessing the internet sourcing for information for effective learning.

iv. It helps both academic staff and Business Education students to be comfortably entrenched in the global village.

v. Exposes the Business Education lecturers and students to international best practices in information technology;

vi. It facilitates teaching, research and knowledge creation and dissemination of information in the school of learning.

2.9 Challenges to e-Learning Technologies in the Nigerian Tertiary Institutions

The unprecedented increases in Business Education students' enrolment at all levels in tertiary education in Nigeria have exposed the poor infrastructural situation in the country. This is evident in the unmanageable nature of the school systems, resulting from crowded classrooms, dilapidated and uninhabitable structure, poor and inadequate facilities that should support teaching, learning and research. The result of this is the production of low quality graduates that are not marketable in the world driven by technology.

The need for e-learning has now become important more than ever before as the objectives of institutions of learning in Nigeria as defined in the National Policy on Education (FRN, 2004) include the provision of high level manpower for national development and this is to be achieved through its programme of teaching, learning and research. Electronic learning can help adults in developing their literacy and in numeracy skills, while also building ICT skills for life and work (CILIP, 2005). With electronic learning, direct attachment to classrooms is reduced and the population is decongested.

Infinedo (2007) used a conceptual framework to illustrate the discourse on the challenges facing the diffusion of e-learning in the Nigerian tertiary education environment. It draws upon developmental reports of notable bodies, including the G8 DOT Force, UN ICT Task and UNPAN (2005). These bodies have used a similar framework to describe the problems faced by developing societies in

spreading ICT-based initiatives. In brief, the broad categories of factors believed to be hindering efforts of developing societies in using ICT (e-learning) products for instructional delivery method include the following:

i. Infrastructural problems, that is, poor information and telecommunication technologies facilities, inadequate power generation, poor internet access, international tariff and lack of circuit capacity,

ii. Institutional problems, for example, awareness problem, lack of familiarity with the use of e-learning technologies and unwillingness to change from the status quo, among others; and

iii. Human capital problems, that is, lack of qualified skilled IT professional, cost of procurement of internet access and lack of financial resources.

CHAPTER THREE

3.0 Introduction

The purpose of this chapter is to present the techniques to be used in collecting data from the respondents. The method and procedure for this study are stated below.

3.1 Design of the Study

This study uses survey research method, a type of quantitative research method to explore the impact of e-learning technologies on academic performance of tertiary institution students using Business Education students of Tai of Solarin College of Education.

3.2 Population of the Study

The population study comprises of Business Education Students (i.e 300 level, 200 level and 100 level) in Tai Solarin College of Education. The total population of each level is stated below:

S/N	LEVELS	NO. OF RESPONDENTS
1.	100	111
2.	200	98
2.	300	142
	Total	**351**

3.3 Sample and Sampling Procedure

The sample for this study will consists of fifty (50) students of Business Education, Tai Solarin College of Education, Omu-Ijebu.

Ten (10) students will be sample from 100L, twenty (20) students from 200L, while twenty (20) students will be sample from 300L to make a total of fifty (50) students, through the simple random techniques.

3.4 Research Instrument

The instrument that would be used in this study would be a self constructed questionnaire and it would be in two sections: section A and Section B. section A will consist of personal data of the respondents and section B will be information on the variables selected for the study. The responses of the respondents will be based on two ratings viz: Y= Yes, N= No.

3.5 Validation of the Instrument

The instrument (questionnaire) will be carefully subjected to content validation. The research questions are made as the guide to the construction of the questionnaire putting in mind the hypothesis, which are highly itemized on the instrument, however, the instrument is to be scrutinized by the researcher's supervisor who will give necessary correction for restructuring.

3.6 Reliability of the Research Instrument

The use of test – retest method or reliability would be used for this study to establish the reliability of the measuring instruments. Based on the statistical computation and level of responses from the respondents which the study would base on the test – retest would be based to confirm the research instrument and to be sure that it is realizable.

3.7 Administration of the Instrument

The questionnaire will be personally administered by the researcher to the respondents who will respond and return the questionnaire.

3.8 Method of Data Collection

The questionnaire will be properly monitored for proper filling, and it will be properly collated for analysis.

3.9 Procedure/Method of Data Analysis

In order to analysis the data collected, the simple percentage method would be used in this study.

CHAPTER FOUR

4.0 Introduction

This chapter is specially designed to present data computed and analyzed in order to show magnitudes and test for significance.

4.1 Demographic Information

The percentage of the respondents according to their sex

Table 4.1.1

Sex	**Number**	**%**
Male	31	62%
Female	19	38%
Total	50	100%

The tables above shows bio data information of the respondents, male respondents were 31 (62%), while female respondents were 19 (38%).

The percentage of the respondents according to age

Table 4.1.2

Age	**Number**	**%**
16-24yrs	41	42%
25-30yrs	9	18%
31years and above	----------	--------
Total	50	100%

The age structure has 16-24years dominating the respondents with 41 (82%), while 25-30years with 9 (18%).

The percentage of the respondents according to their levels.

Table 4.1.3

Schools	**Number**	**%**
100	5	10%
200	7	14%
300	38	76%
Total	50	100%

The table shows the percentage of the respondents according to their levels, 100L respondents were 5 (10%), 200L respondents were 7 (14%), while 300L respondents were 38 (76%).

4.2 DATA ANALYSIS

The analyzed responses from the questionnaire.

Question 1: E-learning can help the Business Education students to work well in groups.

Option	**No. of Respondents**	**%**
YES	49	98%
NO	1	2%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 49 (98%), while the number of No respondents were 1 (2%). Based on the analysis above, it has shown that majority of the respondents

believe that e-learning can help the Business Education students to work well in groups.

Question 2: E-learning can help Business Education students to improve their academic performance.

Options	**No. of Respondents**	**%**
YES	45	90%
NO	5	10%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 45 (90%), while the number of No respondents were 5 (10%). Based on the analysis above, it has shown that majority of the respondents agreed that e-learning can help Business Education students to improve their academic performance.

Question 3: E-learning can help Business Education student to share information.

Options	**No. of Respondents**	**%**
YES	43	86%
NO	7	14%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 43 (86%), while the number of No respondents were 14 (28%).

Based on the analysis above, it has shown that majority of the respondents agreed that e-learning can help Business Education student to share information.

Question 4: E-Learning can help Business Education students to be able to handle information and express ideas.

Options	**No. of Respondents**	**%**
YES	39	78%
NO	11	22%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 39 (78%), while the number of No respondents were 11 (22%). Based on the analysis above, it has shown that majority of the respondents agreed that E-Learning can help Business Education students to be able to handle information and express ideas.

Question 5: Business Education students need to be exposed to e-learning.

Options	**No. of Respondents**	**%**
YES	41	82%
NO	9	18%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 41 (82%), while the number of No respondents were 9 (18%).

Based on the analysis above, it has shown that majority of the respondents agreed that Business Education students need to be exposed to e-learning.

Question 6: E-learning is the fastest means of learning.

Options	**No. of Respondents**	**%**
YES	42	84%
NO	8	16%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 42 (84%), while the number of No respondents were 8 (16%). Based on the analysis above, it has shown that majority of the respondents agreed that e-learning is the fastest means of learning.

Question 7: E-learning allows both the Business Education lecturers and the students to share knowledge.

Options	**No. of Respondents**	**%**
YES	47	94%
NO	3	6%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 47 (94%), while the number of No respondents were 3 (6%). Based on the analysis above, it has shown that majority of the respondents

agreed that e-learning allows both the Business Education lecturers and the students to share knowledge.

Question 8: Learners at different places have access to education through E-learning.

Options	**No. of Respondents**	**%**
YES	39	78%
NO	11	22%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 39 (78%), while the number of No respondents were 11 (22%). Based on the analysis above, it has shown that majority of the respondents agreed that Learners at different places have access to education through E-learning.

Question 9: E-learning ease stress of travelling of learners.

Options	**No. of Respondents**	**%**
YES	49	98%
NO	1	2%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 49 (98%), while the number of No respondents were 1 (2%).

Based on the analysis above, it has shown that majority of the respondents agreed that E-learning ease stress of travelling of learners.

Question 10: E-learning facilities form the bases of success of tertiary institutions programme.

Options	**No. of Respondents**	**%**
YES	48	96%
NO	2	4%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 48 (96%), while the number of No respondents were 2 (4%). Based on the analysis above, it has shown that majority of the respondents agreed that E-learning facilities form the bases of success of tertiary institutions programme.

Question 11: E-learning facilities motivate Business Education students to search for information for research purposes.

Options	**No. of Respondents**	**%**
YES	40	80%
NO	10	20%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 40 (80%), while the number of No respondents were 10 (20%).

Based on the analysis above, it has shown that majority of the respondents agreed that E-learning facilities motivate Business Education students to search for information for research purposes.

Question 12: E-learning should be established in every school, starting from primary to higher institutions.

Options	**No. of Respondents**	**%**
YES	39	78%
NO	11	22%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 39 (78%), while the number of No respondents were 11 (22%). Based on the analysis above, it has shown that majority of the respondents agreed that e-learning should be established in every school, starting from primary to higher institutions.

Question 13: E-learning library in my school.

Options	**No. of Respondents**	**%**
YES	43	86%
NO	7	14%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 43 (86%), while the number of No respondents with 7 (14%).

Based on the analysis above, it has shown that the majority of the respondents agreed that E-learning library in my school.

Question 14: Business Education Students can search for information through e-learning.

Options	**No. of Respondents**	**%**
YES	49	98%
NO	1	2%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 49 (98%), while the number of No respondents were 1 (2%). Based on the analysis above, it has shown that majority of the respondents agreed that Business Education Students can search for information through e-learning.

Question 15: E-learning has significant effect on academic performance of Business Education students in tertiary institutions.

Options	**No. of Respondents**	**%**
YES	47	94%
NO	3	6%
Total	50	100%

The percentages of the respondents are as follows: the number of Yes respondents were 47 (94%), while the number of No respondents were 3 (6%).

Based on the analysis above, it has shown that majority of the respondents believe that e-learning has significant effect on academic performance of Business Education students in tertiary institutions.

4.3 Discussion of findings

For the above analysis in table 4.2.1, shows that e-learning helps the Business Education students to work well in groups. Also this researcher discovered that e-learning help Business Education students to handle information and express ideas. For the above analysis in table 4.2.7, shows that e-learning allows both the lecturers and learners to share knowledge. Also this researcher discovered that e-learning ease stress of travelling. The table 4.2.11 also shows that e-learning facilities motivate Business Education students to search for information for research purposes. Also the table 4.2.13, shows that there is e-learning library in the respondent's library. The table 4.2.14, shows that a students can search for information through e-learning.

Lastly, the table 4.2.15 shows that e-learning has significant effect on academic performance of Business Education students in tertiary institutions.

CHAPTER FIVE

5.1 Summary

The role of e-learning facilities in teaching and learning Business Education has become one of the most important and widely discussed issues in contemporary education policy**.** E-learning is an important factor in this information age so much so that when properly adopted and applied holds a great promise to improving teaching and learning in Business Education. It is an important instructional tool to facilitate the transfer of many types of information and an effective means of communication in schools and colleges. E-learning or Internet-based instruction has been manifested in one-to-one (teacher-to-student), one-to-many (teacher-to-group) and many-to-many (group-to- group) approaches to instruction.

E- Learning is the application of a whole range of technologies involved in information processing and electronic communications, such as computers, internet, e-mail, computer software, satellite, mobile communication gadgets, and other allied electronic devices for dissemination of knowledge and information. It involves the application of computer and information technology in teaching and learning. E-learning comprises computer and ICT materials and applications, which aid information collection and dissemination, research and global exchange of ideas that are critical for advancing meaningful, educational initiatives and understanding issues related to global development. The introduction of e-learning facilities to the education systems is aimed at improving educational

delivery and preparing students for a role in an information age. Application of e-learning facilities provides productive teaching and learning in order to increase people's creative and intellectual resources especially in today's information society and gives ample and exceptional opportunities to the teachers and students to develop capacities for high quality learning and to increase their ability to innovate.

Teachers are able to fashion a focused and relevant assignment for discussion between students and teachers, and among students through e-learning devices. E-learning devices such as the web, internet, multimedia, computer, projector, television, etc provide easy access to quality learning materials and make reasonable and responsible contributions to the learning process.

5.2 Conclusion

E-learning has every sign of long survival as long as such digital devices become more available. That means when the devices become more afforded, the connectivity bandwidths become widely use and less constraint; the multimedia applications will prosper. The survival of tertiary educational institutions in the 21st century will increasingly rely on various forms of electronic delivery system and communication facilities available in markets that are required to make education to be more flexible. The adoption and use of e-learning in schools have a positive impact on teaching, learning, and research.

Despite the roles e-leavening can play in education, schools in Nigeria have yet to extensively adopt them for teaching and learning in Business Education. Efforts geared towards integration of e-learning into the school system, have not had much impact. Problems such as poor policy and project implementation strategies and poor information infrastructure militate against these efforts. For e-learning to succeed in Nigeria, there is the need to build on another important pillar i.e. the existence of befitting infrastructure and some degree of viable connectivity.

5.3 Recommendation

In order to ensure that ICTs are widely adopted and used in Nigeria's school system, the following efforts should be taken.

- Efforts should be made by Ministry of Education (at Federal and State levels) to post teachers skilled in ICTs to each school to impart ICT skills to the students.
- Federal Ministry of Mines and Power should work towards stabilizing electricity supply in Nigeria, and all schools should be made beneficiaries of e-learning projects.
- The accreditation teams of the National University Commission (NUC) as well as the National Commission for Colleges of Education (NCCE) and the National Board for Technical Education (NBTE) should revise the syllabus of the Nigerian Universities, Colleges and polytechnics respectively to include virtual courses that will be internet based through a

well-established Learning Management System (LMS) tools such as Moodle and Blackboard.

- Government should provide institutions at all levels in the country with adequate information-technology facilities.
- Government should properly found Institutions so as to be able to compete with their other institutions abroad.
- Government should ensure adequate electricity supply in schools.
- The government of Nigeria should embark on a massive computer literacy training programme nation-wide particularly for teachers and learners at all levels. This should be accomplished through in-service training for teachers, workshops, seminar, and conferences.
- All classrooms and auditoria in higher education institutions in Nigeria should be connected to the internet in order to enhance web-based instruction. The government should do this by paying internet connection fees to internet service providers (ISP) to provide internet services to all institutions of learning.
- Videophone, teleconferencing and multimedia systems, for examples, multimedia computers and multimedia projectors should be provided in adequate number by the government of Nigeria for effective e-learning technology use at all levels of education.
- Lecturers in Nigeria should be motivated and encouraged to develop and use multimedia courseware and software relevant to teaching and

learning. The government should motivate teachers through provision of adequate funds for courseware development.

- The government of Nigeria should provide digital libraries in every educational institution. The library is the best reservoir of knowledge and no educational institution can do without it. Each digital library should have a server for storage, retrieval, uploading and downloading of information.
- The government of Nigeria should employ technologists and technicians to take care of internet facilities and equipment and to carry out routine repairs.
- The government should set up standby generators and uninterrupted power supply (UPS devices) to tackle the problem of epileptic or inconsistent power supply in order to support the use of electronic equipment for e-learning.

REFERENCES

Abidoye, J. A. (2010). The role of electronic learning in improving distance education in Nigeria. *Journal of Teacher Perspective.*

Aburime, M. O., & Uhomoibhi, J. O. (2010). Impact of Technology and Culture on Home Economics and Nutrition Science Education in developing Countries. *Multicultural Education and Technology Journal 4* (1) 4-16

Aduwa-Ogiegbaen, S. E., & Iyamu, E. O. S. (2005). Using information and Communication technology in secondary schools in Nigeria: Problems and Prospects. *Educational Technology & Society*, 8 (1), 104- 112.

Akuchie, R. (2008). E-learning in a higher education: A case study of Nigerian Universities. *Journal of Science Education (JOSE),* (1) 1, 67-72.

Amedu, S. O. (2014). Assessment of the Uses of E-learning Facilities by Home Economics Teachers in Teachers in Delta state, Nigeria. Journal of Education and Practice. Vol. 5 (16) pp207-212.

Amedu, S.O. (2013). Vocational and Technical Education: A Tool for Sustainable Development in Nigeria*. Journal of Education and Practice*, 4(25), 127-130.

Anowor, O. O. (2002). E-learning and Teacher Preparation in Nigeria. Power point Presentation, Delivered as a lead paper at 2000 Annual Conference of Faculty of Education, Nnamdi Azikiwe University, Awka.

Asogwa, C. I. (2011). The Challenges of Optimizing E-Learning Opportunities for Effective Education Service Delivery in University of Nigeria Nsukka.In

Nkad, O., and Eze, U. (Eds).Optimizing E-learning Opportunities for Effective Education Service Delivery. Publication of Institute of Education University of Nigeria, Nsukka (UNN, 2011).

Daniel, J. (2009). *E-earning for Development: Using Information and Communications Technologies to Bridge the Digital Divide*. Common Wealth Ministers Reference. Henley Media Group.

Edna, N. O. and Francis J. O. (2013). Rolesand Challenges of Teachers in Effective Instructional Delivery of E-learning in Nigeria. Journal of Educational Research and Studies. Vol. 1 (4) pp23-26.

European Commission (2000). *Communication from the Commission: E-learning-Designing "Tejas at Niit" Tomorrow's Education*: Brussels: European Commission.

Federal Republic of Nigeria (2004). *National policy on education: Revised Edition*. Abuja: NERDC Press.

Harper, D. O. (1987). The Creation and Development of Educational Computer Technology. In R. M. Thomas & V. N. Kobayashi (Eds.), *Educational Technology: its creation, development and cross-cultural transfer,* Oxford: Pergamon Press, 35-63.

Hedge, N. and Hayward, L. (2004) Reading Roles: University E-learning Contributing to Lifelong Learning in Network world. http://www. Nation master.com.

Japheth, T. T. and Cyprain C. A. (2013). The Impact of ICT-Driven Instructional Aids in Nigerian Secondary Schools. International Journal of Basic and Applied Science. Vol. 1 (3) pp511- 518.

Kamba, A. M. (2009). Problems, challenges and benefits of implementing e-learning in Nigerian universities: An empirical study. *International Journal of Emerging Technologies in Learning (IJET). 4 (1) 11 – 23.*

Kirsh, D. (2002). E-learning, Meta cognition, and Visual design. A paper presented at the International conference on Advances in Infrastructure for E-business, E-education, E-science and E-Medicine on the Internet. L'Aquila, Italy.

Ladi, H. D. and Hadiza, I. B. (2010). Staff Strength Utilization and Students' Academic Achievement In Senior Science Secondary Schools in Maiduguri Metropolitan Council, Borno State, Nigeria. International Journal of Research in Education. Vol. 7 (1) pp49-52.

Leonard, C. I. (2013) The Assessment of Utilization of E-learning Opportunities for Effective teaching And Learning of Religion in Nigerian Tertiary Institutions. European Journal of Educational Studies. Vol. 5 (3) pp343-359.

Ngwoke, D. U. and Numonde, D. (2011).Optimizing E-learning Opportunities for Effective Education Service Delivery: A case for use of E-textbook in Schools. In Onyegegbu, N. and Eze, U. (eds) Optimizing E-learning

Opportunities for Effective Education Service Delivery. Publication of Institute of Education: University of Nigeria, Nsukka.

Nwagbo, C.R. & Ugwuanyi, C.S. (2011). Assessment of the level of lecturers' Information and Communication Technology (ICT) competence for the Adoption of e-learning in Nigerian universities. *International Journal of Educational Research*, 11(1) 39 – 47.

Nwana, S. (2012). Challenges in the application of e-learning by secondary School teachers in Anambra State, Nigeria. *African Journal of Teacher Education*, 2(1), 67 -72.

Nwana, S. E. (2009). Impediments to Effective Implementation of the National Open University In an Era of Computer Technology. Journal of Research and Production. Vol.15 (1) pp180-188.

Nwokike, F. O. (2011). Optimizing E-learning for effective Delivery of Business Education in Tertiary Institutions. In The 21st Century in Onyegegbu, N. and Eze, U. (eds) Optimizing E-learning Opportunities for Effective Education Service Delivery. Publication of Institute of Education (UNN).

Okoroh L. (2006). Information and communication technology Lagos: Macmillan Publishers.

Olomo R.O. (2001). *Mapping and the Internet; challenges and opportunities in Nigeria*.

Osuala, E. C. (2009). Principles and Methods of Business and Computer Education. Enugu: Cheston Agency Limited.

Osuala, E.C (2009).*Business and computer education* (1st Ed.). Enugu:Cheston Agency Limited.

Pushpanathan, .T (2012). The Role of a Teacher in Facilitating E-learning. In Edna , N. O. and Francis J. O. Roles and Challenges of Teachers in Effective instructional delivery of E-learning in Nigeria. Journal of Educational Research and Studies. Vol. 1(4) pp23-36.

Rosenberg, M. J. (2001). E-learning: Strategies for Delivering Knowledgein the Digital Age. New York, NY: McGraw-hill companies.

Stockley, D. (2006). Implementing e-learning and "how to" guide. *El-magazine* (7) [Online] Available: http;//www.derestockley. Com (February, 2, 2012).

Ugwu, D.A. and Ohimekpen, B.E. (2010). Academic Dishonesty: Implication for the Educational System in Nigeria and the Vision 20:2020. International Journal of Research in Education Vol. 7 (1)pp130-137.

White, G. (2003). E-learning – Key Australian Initiatives: An opportunity for All Leaers (online) http://www.educationndu.edu.au/papers/elearning polandoz.pdf.

Zheng, R. Z., and Ferris S.P. (2008). *Understanding Online Instructional Modeling. Theories and Practice.* Information science. Hershey.

TAI SOLARIN COLLEGE OF EDUCATION

SCHOOL OF VOCATIONAL AND TECHNICAL EDUCATION

DEPARTMENT OF BUSINESS EDUCATION

QUESTIONNAIRE

Dear Sir/Ma,

I am a student in the above names department undertaking study. The questionnaire is designed to seek your opinion and feelings on **Impact of E-Learning Technologies on Academic Performance of Tertiary Institution Students in Ogun State: A Case study of Tai Solarin College of Education.**

Please, feel free to respond to each of these questions as your response will be treated confidentiality.

SECTION A

Sex: Male ( ) Female ( )

Age: 16-24yrs ( ) 25-30yrs ( ), 31 and above ( )

Level: 100 ( ), 200 ( ), 300 ( )

SECTION B

Please respond appropriately to all the issues raised here by ticking (√) any option of your choice. Key, Y= Yes, N=No.

S/N	ITEMS	Y	N
1.	E-learning can help the Business Education students to work well in groups.		

2.	E-learning can help Business Education students to improve their academic performance.		
3.	E-learning can help Business Education student to share information		
4.	E-Learning can help Business Education students to be able to handle information and express ideas.		
5.	Business Education students need to be exposed to e-learning.		
6.	E-learning is the fastest means of learning.		
7.	E-learning allows both the Business Education lecturers and the students to share knowledge.		
8.	Learners at different places have access to education through E-learning.		
9.	E-learning ease stress of travelling of learners.		
10.	E-learning facilities form the bases of success of tertiary institutions programme.		
11.	E-learning facilities motivate Business Education students to search for information for research purposes.		
12.	E-learning should be established in every school, starting from primary to higher institutions.		
12.	E-learning has negative impact on adult learners.		
13.	E-learning library in my school.		

14.	Business Education Students can search for information		
15.	E-learning has significant effect on academic performance of Business Education students in tertiary institutions.		