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CHALLENGES TO E-LEARNING IN PUBLIC SECONDARY SCHOOLS IN EDO STATE IN THE 21ST CENTURY

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ABSTRACT

Public secondary schools in Nigeria in the 21st century are faced with challenges on the use of electronic-learning (e-learning) programs and medium, especially in contemporary Nigeria where greater emphasis is now being placed on human, national and technological development. If the educational system in Nigeria is to have A global standard through the use of e-learning facilities for knowledge acquisition within and beyond the classroom. This study examined the obstacles as well as the gap on the use of e-learning in public secondary schools in Edo State in the 21st century. The study, based on a descriptive survey, assessed public secondary for the most urgent solution. The method of data analysis employed was mean (□) and standard deviation (SD). Findings revealed that there is a gap on e-learning in the schools surveyed. Inadequate e-learnng facilities/equipment and Lack of regular electricity in Nigeria were found to be the challenges. The percentage of Nigerian secondary school teachers with basic computer skills was low compared to their counterparts in developed countries. It was recommended that an in-service training programme should be organized for teachers for the implementation of information and communication technology (ICT), as an aid to e-learning program, government should appropriately fund secondary schools to provide equipment and technical expertise for teachers among others to with steady supply of electricity for effective operation of the e-learning.

1.1. Background to the Study

E-learning in education involves the use of modern techniques for the acquisition of knowledge at all levels of education. This includes the use of computers, digital technology, networked digital devices (e.g. the internet) and associated software and course ware. E-learning is quite different from distance learning program it has to do with the used of all information and communication technology, networks, internet and other forms of electronic media that can enhance teaching and learning. It aims at scientific system of transferring knowledge and skills. E-learning describes educational technology, scientifically, electronically, technologically for knowledge transfer and acquisition, where "e-" is often refer to "everything, everyone, engaging and easy" .The advent of internet and multimedia technologies are two basic enhancer of e-learning, with consulting, content, technologies, services and support is identified as the five key sectors of the e-leaning industry. Irrespective of the educational level of

individuals, e-learning can be adopted, used or applied for effective delivering of teaching and learning. E-learning can be teacher or learner-controlled, the learner has authority of determining the pace, the learning environment; thereby working at their own convenience. The changes in education have led to a paradigm shift from teacher centred through to learner centred.

E-learning plays an important role in professional development for adults in the workforce. As countries all over the world struggle to meet the millennia developmental goals, there is need for increasing recognition of the potential of e-learning to meet growing educational challenges. E-learning is often supported electronically using online media or offline asynchronous which is offered through electronic media such as CD-ROM's, mobile phones, Television, Video Conferencing (VC), e-mail, interactive TV and satellite to increase the pace of learning process.

It is supported by electronic hardware and software which is offered through electronic media such as CD-ROM's, mobile phones, Television, Video Conferencing (VC), e-mail, interactive TV and satellite among others. Different kinds of online learning can be enumerated as: Web supplemented; Web dependent; Mixed mode which involves online discussions, assessment, online project/collaborative work replacing part of face-to-face teaching/learning and fully online.

E-learning (Electronic learning), enables students, trainees and teachers/instructors interact virtually without physical contact. E-learning or web-based instruction as the name implies refers to the use of electronic technology and media to deliver, support and enhance teaching, learning and assessment. This has to do with elements of communication within and between communities of learners, teachers and the entire society where the secondary schools are housed. The online content may be locally generated or developed else where which forms the major tenet and mode of instruction (Asiyai, 2010). The educationist/practitioners generally believed that e-learning is 'the use of processes and technologies to create, distribute, manage, and enable learning via an electronic network. Of course, to some extent this is correct and accepted generally.

E-learning is been found to be most effective and applicable in technical and scientific subjects at secondary school level. The use of interactive electronic media has proven advantageous in all recent study in all subjects taken by students and even seen as a solution to solve the major problem endangering learning effectiveness in ur educational system and this is shortage of staff and materials in the field of teaching. The integration of e-learning to facilitate problem based learning in sciences and basic sciences will give students some sort of support to comfortably take part into learning activities, gives them an opportunity to work independently and developed new ideas on the problem at hand. It was further identified that some strategies for the effective integration of e-learning in problem based learning (P.B.L) for engineering and technical education are as follows:-

(1) The use of online teaching and learning packages;
(2) The use of internet communication tools
(3) Teacher-initiated designed problem based learning programme (P.B.L.P)
(4) Provision of teachers as online facilitators, and
(5) The use of online journals for teaching and learning through the use of information and communications technology. E-learning as electronically operated media which is scientifically designed to assist and aid both the teachers and learners act as mediator for the purpose of constructing and confirming knowledge. E-learning can be considered a natural evolution of distance learning, which has always taken advantage of the latest tools to emerge in the context of technologies for structuring education. E-learning can be classified into two broad categories, synchronous and asynchronous. Synchronous learning uses a learning model that initiates a classroom course, lecture or meeting using Internet technologies. In synchronous learning, the interaction is live; it requires all the participants to be available at the same time as we have on the use of skype. Asynchronous learning is described as a web-based version of computer-based training (CBT), which is typically offered on a CD-ROM or across an organization's local or national area network. The learner can access the course at any time at his or her own pace and convenience.

1.2. Problem of the Study

Today, the use of conventional method of teaching and learning in Nigerian secondary schools makes product of these schools unable to compete nationally and internationally in terms of knowledge acquisition .This problem emanated from the numerous challenges and obstacles on the use of e-learning in secondary schools. These challenges range from technological, organizational and pedagogical challenges.

According to E-learning has become, within a very short period of time, one of the basic building blocks of modern society. Many countries now regard understanding E-learning and mastering the basic skills and concepts of E-learning to be part of core education, alongside reading, writing and numeracy. It does appears, however, to still be a misconception that E-learning only refers to 'computers, computing and related activities'. This is not the case, although computers and their applications may play a significant role in modern information management as media and channels. A number of other technologies and/or systems also comprise of the phenomenon commonly referred to as E-learning.

Across Africa and most developing countries, there are a number of challenges in integrating E-Learning into schools and in the educative process in general:

1. Lack of Awareness of the E-learning Platform among Many Students and Parents: There is a no awareness of the effectiveness of e-learning and many still depend largely on the traditional and conventional methods of teaching and learning in various schools.
2. Low Adoption Rate of the E-learning platform- While there are many institute that are willing to adopt e-learning platform, there is still lack of e-content guide, and the non-availability of adequate infrastructure alongside with the problem of digital gap and division that had led to a lesser rate of adoption of the platform.
3. Bandwidth Issues and Connectivity Issues- if you wish to provide engaging content, then it follows that you require a combination of multimedia constituent as well as right apparatus. These issues we face in connectivity and bandwidth which will lead to problems in downloading of engaging content which will make the learning slower. This leads to frustration among the students and thereby affects the ease in the training and learning process.
4. Lack of Computer Literacy among a Main Stream Population including the secondary school teachers: This is true for the rural masses as well as this also hinder introduction of e-learning and its implementation.
5. Lack of E-content of High Quality- We are presently in dear need of good quality e-content and expertise that can arrange all learning packages based on curriculum content according to he various levels of education according to the enormous financial resources available to develop content (Ehiametalor, 1988). This has led to the learning content having moderate impact on learning masses as well as to a low interactivity.
6. Difficulty Experienced in Engaging Learners Actively for Online Learning- this is one of the main factors that determines the success or failure of the e-learning process and hence is key to its implementation and sustainability. Requiring a very high degree of self motivation, online learning becomes a challenge since not many students possess this quality; hence the learners find it difficult to move from traditional to new e-learning modes (Morgan, 1997).

Other challenges includes limited E-learning infrastructure (facilities and competent staff); A lack of information and information illiteracy among teachers and teacher trainers; Techno phobia; Poor or non-existent Internet connectivity; Inadequate learning resources including related educational tools, course curriculum and other learning materials; Attitudes of teacher trainees and teacher trainers in terms of lack of independent learning skills and/or a reluctance to take responsibility for their own learning; Highly prohibitive costs associated with

software licenses, maintenance and technical support; and poor or irregular power supply, a problem that is peculiar to Nigeria in particular.

Countries must be able to benefit from technological developments. To be able to do so, a cadre of professionals must be educated with sound E-learning backgrounds, independent of specific computer platforms or software environments. It is distressing to note that Nigeria and many other countries in sub-Saharan Africa fall below expectations regarding the use of E-Learning in general and in instructional/learning activities, in particular. Disparities in E-learning access in Africa are occasioned by many factors, including low bandwidth for Internet access, a lack of funds to embark on full scale computerization, irregular power supply, and inadequate telephone lines

Qualified programmers, engineers and technicians are difficult to find and when they are found, the (public) education sector cannot afford to retain them, as competition from the private sector is fierce. This lack of skilled personnel in schools that can raise breeds e-products/graduates is a challenges among others . Teachers can only give skills and ideas to learners, if they are literate on the use of e-learning packages and are knowledgeable in their disciplines (Adepoju, 2007). This is, unfortunately not the case in Nigeria where most teachers have minimal or no E-learning skills and rarely use existing opportunities to develop them.. This generation cannot survive the challenges posited by the contemporary social realities with this level of ignorance, techno phobia and information paranoia.

1.3. Research Questions

The study sought to answer the following research questions:

1. What are the challenges of integrating e-learning into secondary schools in Edo state?
2. What are the constraints of e-learning in the advancement of learning process among secondary schools?
3. What are the factor affecting e-learning in learning processes among secondary schools?

2. METHOD

The research design used for this study was the descriptive survey research design. The population of the study was the senior secondary schools in ten public secondary schools which has 5,011 students in all the 62 secondary schools in Esan West Local Government Area of Edo State.

Random sampling techniques was used in the selection of ten secondary schools among the 62 schools in the local government area. The sample size was 30 randomly selected students from the ten sampled schools which gave a total sample size of 300 students used for this study. The responses were placed on on a five point liker-type scale, viz: strongly agree-(SA)5, Agree-(A)4 Undecided-(U)3, Disagree-[D]2 and Strongly disagree-(SD).In analyzing the data collected the mean rating and standard deviation were used.

2.1. Method of Analysis

In analyzing the data collected the mean rating and standard deviations were used.

1. What are the challenges of integrating e-learning into secondary schools in Edo state?

From table 1 above, it shows that most of the respondents agreed with mean (2,3,4,5,and7,) rating ranging from 3.10 to 3.73 with the exception of two item of mean (1 and 2) rating ranging from 2.79 to 2.86. it means that most of the respondents agreed that there are obstacles of integrating e-learning into secondary schools in Edo state.

Table-1. Mean Rating on the Obstacles of Integrating E-learning into Secondary Schools in Edo State.

S/N	ITEMS	X	SD	DECISION
1.	Unstable supply of electricity is an impediment to the usage of e-learning in teaching and learning	2.86	0.83	Disagree
2.	High cost of computers is a hindrance to the usage of e-learning in teaching and learning	3.5	0.74	Agreed
3.	Lack of trained personnel is an impediment to teaching and learning through e-learning	3.6	0.69	Agreed
4.	Inadequate funding of schools by the government is an obstacle to the usage of e-learning in teaching and learning	3.73	0.63	Agreed
5.	Un-conducive environment is an impediment to the usage of e-learning material in teaching and learning	2.79	0.74	Disagree
6.	Workload of teachers will not allow them to combine e-learning education in teaching and learning process	3.1	0.73	Agreed
7.	Most teachers do not have idea on computer	3.7	0.57	Agreed

Field work, 2017

Research Question 2: What are the Constraints of E-learning in the Advancement of E-learning Process among Secondary Schools?

Table-2. Mean Rating on the Constraint of E-learning in the Advancement of E-learning process among Secondary Schools.

S/N	ITEMS	X	SD	DECISION
8.	The government finances all purchase of e-learning facilities in schools	2.98	0.84	Disagreed
9.	The government funds the building of computer laboratories in schools.	3.46	0.68	Agreed
10.	The government employs engineers/technicians to fix damage	3.05	0.69	Agreed
11.	The government funds seminars for teachers to acquire e-learning knowledge	2.90	0.78	Disagreed
12.	The government employs delegates to supervise teachers in schools to make sure that the policy on e-learning education is fully implemented	3.40	0.74	Agreed
13.	Most students thinks that computer should be learnt in cyber cafes and not in schools	3.40	0.85	Agreed
14.	Most students have lukewarm attitude when computer is based as an instructional tool for teaching and learning	3.30	0.49	Agreed

Field work, 2017

From table 2 above, it shows that most of the respondents agreed with a mean (9,1,12,13,and14)rating ranging from 3.05 to 3.46 with the exception of two item of mean (8 and 11) rating ranging from 2.90 to 2.98, it means that most of the respondents agreed that there is constraints of e-learning in the advancement of e-learning process among secondary schools.

Research Question 3: What are the Factors Affecting E-learning in Learning Process Among Secondary School Students ?

From table 3 above, it shows that most of the respondents agreed with a mean (15-19) rating ranging from 3.50 to 4.01with the exception of one item of mean (20) rating ranging of 2.80, it means that most of the respondents agreed that there are factors affecting e-learning in learning process among secondary schools.

Table-3. Mean Rating on the Factors Affecting E-learning in Learning Process among Secondary School students.

S/N	ITEMS	X	SD	DECISION
15.	Teaching with computer and internet resources makes learning difficult for students	3.95	0.57	Agreed
16.	Giving learners assignment that encourages them to source for information on the net does not improve their understanding	3.50	0.78	Agreed
17.	Learners do not show interest when taught with e-learning resources that may facilitate meaningful learning	3.60	0.74	Agreed
18.	Learners exposure to e-learning materials with services does not improve their performance	4.01	0.41	Agreed
19.	Using audio-visual aids as an instructional material does not motivate learners to learn	3.50	0.75	Agreed
20.	Teachers are not provided with personal e-learning materials to assist their teaching and research process	2.80	0.68	disagreed

Field work, 2017

3. DISCUSSION OF THE FINDINGS

In response to research question 1 in table, the respondents agreed that the following factors were responsible for secondary school, s inability to use e-learning in Nigeria. These were high cost of computers, lack of trained personnel, inadequate funding of schools by the government and the workload of teachers that are impediment to the use of computer in teaching and learning with a mean rating ranging from 3.00 to 3.73 while two respondents disagreed with two out of seven items with mean rating ranging from 2.79 to 2.86. This shows that there are no availability of e-learning facilities in secondary schools in Esan West Local Government Area of Edo State.

E-learning has the characteristics of making teaching and learning faster, it deepens and motivate knowledge, it accelerates talents and potentials in individuals, it helps to relates and transfer whole school experience to the world of work. It helps to create a connectivity cord between the school and the world of work. It helps to resolve problems emanating from economic resection as well as giving room for viable opportunities for people excel, (Adeyinka, 1971).

In response to research question 2, the table revealed the respondents agreement with the three out of seven items with mean rating ranging from 3.40 to 3.46 while two respondents disagreed with the mean ratings ranging from 2.90 to 2.98. This shows that the attitude of secondary students towards e-learning in secondary schools in Esan West Local Government Area of Edo state may be positive or negative towards the use of e-learning.

In response to research question 3, table 3 revealed the respondents agreement with the mean rating ranging from 3.50 to 4.10 with an exception of one item with a mean rating ranging of 2.80. This showed that there are a lot of factor that are responsible for students attitude towards e-learning and these factors are against the view that e-learning is a diverse set of technological tools and resources use to communicate and to create, disseminate, store and manage information. These technologies includes; computer, internet, broadcasting technologies (Radio and Television) and Telephone.

Students are not interested in studying computer education which could be attribute to lack of trained personnel that is why (Adeosun, 2010) revealed that hence computer training should be part of the requirement for secondary school entrance examination , there is need for teachers to be well trained otherwise garbage out wrong things into the children. It becomes bad when students observe that their teachers are not well trained in a field of study.

4. SUMMARY OF FINDINGS

Lack of adequate Information Communication Technology infrastructure in Nigeria posed a lot of problems to educational sector. Though the International Telecommunication Union (ITU) has rated Nigeria's Telecommunication Sector as the fastest growing in Africa, majority of Nigerians still have inadequate access to the

use of Internet especially in our secondary schools. Information, data, audio, video and multimedia area meant to be transmitted have know adequate and reliable networks needed in secondary schools (Yusuf, 2005). Unfortunately, these infrastructures are lacking within and outside most Nigerian Secondary Schools.

Inadequate funding by the government, inability to supply electricity, the irregular and unstable supply of electricity in Nigeria poses a major difficulty in the proper functioning of e-learning. There are recorded cases of electrical home appliances that have been damaged due to power failure. The absence of electric power grids in most parts of the country even where adequate telecommunication facilities are available contribute to the irregular power supply.

Nigerian Secondary School Teachers lack basic computer skills compared to their counterparts in developed economies. The teachers have no zeal to be ICT literate consequently, the use of ICT in teaching and learning is minimal in most cases not used. Some people are ignorant and they often have a misconception about e-learning among Nigerians. Secondary School teachers in Nigeria need to be given a re-training programme on educational technologies and the importance of integrating e-learning and teaching into classrooms (Bakar and Mohammed, 2008).

5. CONCLUSION

This study examined the challenges associated with e-Learning in secondary schools in Edo State. Secondary schools are facing a lot of challenges in an attempt to update their knowledge on the use of e-learning and to adapt to the global trends of technological development in the 21st century. Suggestions on how to update the teachers, students and schools in general were preferred.

6. RECOMMENDATIONS

From the findings and conclusion of this study, the following recommendations are made

On the job training should be organized for teachers to update their knowledge on e-learning and information technology for adequate academic delivering at secondary school level.

The use of Information and Communication Technology (ICT) competency test as a criteria for the would be teachers to be encouraged and implemented.

Non-governmental bodies should support schools in terms of provision of facilities and equipment.

It is mandatory for government to fund adequately the procurement of e-Learning facilities.

Government should supply electricity to all schools, since this is a major hindrance to e-learning.

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