

# ELECTRONIC LEARNING AND ITS RELEVANCE TO EFFECTIVE LEARNING IN NIGERIA

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## ABSTRACT

*It has been ascertained that the school environment in Africa and most other developing countries are deficient of/and lack basic necessities and only a handful of schools located in urban centers are connected internationally via the Internet. The classrooms are mostly deficient and impoverished in terms of basic facilities and amenities required for effective teaching and learning. There is also a high pupil-teacher ratio in the urban classroom in our school systems. Based on these, this study looked at the electronic-learning and its relevance to effective learning in the emerging world. E-learning offers a more effective learning experience, since the learner participates in the learning process and receives individual attention, even when the instructor and the learner are at different locations. This participation in learning is by itself a positive learning experience. The atmosphere provided by e-learning allows more effective interaction between the students and the instructor. Therefore, it can be as effective as the traditional classroom learning environment where the space, seating, etc, could be inadequate. It is therefore plausible that continuing professional development (CPD) which sustains the teacher on the job through exposure to professional renewal programs because it is through the CPD that the knowledge and skills of existing teachers are sustained and refined to meet the challenge of the modern realities of their job be given it rightful place in the academic system.*

**Keywords:** *Electronic learning, school environment, Internet*

## INTRODUCTION

United Nations Educational Scientific and Cultural Organization (UNESCO, 1998) cited in Jada (2004) describes the school environment in Africa and most other developing countries as deficient and lacking basic necessities like water, electricity and textbooks. It has also been stated by Jada (2004), that in Nigeria, "only a handful of schools located in urban centers are connected to the national grid, not to talk of rural schools" Generally three major characteristics are easily identifiable in the Nigeria classroom environment especially at the primary level. The most commonly adopted strategy is the usual mechanical teacher led instruction, which tends to relegate learners' contribution to the learning process to the background. Jada (2004) also asserts that the classrooms are mostly deficient and impoverished in terms of basic facilities and amenities required for effective teaching and learning. Basic facilities required for effective implementation of modern learning approaches as defined by information and communication technology is virtually absent. And considering what is on ground in our schools' system, there is a high pupil-teacher ratio in the urban classroom while in the rural schools the reverse is mostly the case.

Also the common trend in our schools is that the teacher maintains very strong visibility and domination in the learning process. The old practice of the teacher as the major factor in learning still predominates. On the other hand, the learner continues to be a passive participant in the learning process. One question which one has to address here is this: how qualitative can learning that takes place in an environment as depicted above be? To what extent can such environment foster learning in the present era of e-learning?

Streumer (2006) observes that when the World Wide Web was launched in 1991, there was a surge of interest in the possibilities of electronic learning (or e-learning). In real sense the use of the Web as an instructional medium in education was hailed as something of profound changes for all communities, they can be organizations or markets. For decades, one might expect that the concept of e-learning would have been well defined and clearly differentiated from other forms of learning. Yet there is still lack of agreement about what e-learning represents. For all the publicity it has received in recent years, e-learning remains something of a mystery, and its boundaries are far from clear. E-learning penetrates into many fields of thought and practice, and cannot be reduced into a simple formula for success. E-learning encompasses an array of academic perspectives: training and education, learning and knowledge, technology and the investigation of individual market segments.

According to Streumer (2006), E-learning is accessible via CD-ROM-based, Network-based, Intranet-based or Internet-based. It includes text, video, audio, animation as well as virtual environments. By this it can be a very rich learning experience that can even exceed the level of training one might experience in a crowded classroom. Lastly it is self-paced and hands-on learning program. Pagani (2009) asserts that 'the acceptability and quality of the electronic-based learning, as in every form of training, is based on content and delivery'. Even though e-learning can suffer from many of the same obstacles as that of classroom training, such as boring, monotonous, and little opportunity for interaction.

The good things about e-learning, is that the program allows the creation of very conducive learning environments that can capture and retain the interest of the learner towards the material. This study therefore takes a critical look at modern approaches to classroom learning. The main focus is on the issues relevant to effective school learning in the modern world of technology. Learning is generally agreed to be a permanent change in behaviour which occurs as a result of exposure to new experiences. It does not matter if such exposure or experience occurs through organized or planned activities or it came by through unorganized or mere daily getting by. What matters here is that the experience has altered the existing behavioural pattern. Thus learning can be informal or formal. Informal learning is learning that takes place through mostly self-efforts without necessary an instructor. It is essentially part of the basic socialization that individuals experience in the course of growing up in the society. Informal learning is inclusive of understanding, knowledge, skills gained on an individual's initiative and which tend to enjoy longer retentive

capacity.

On the other hand formal learning is learning that takes place in an organized setting. There is an element of compulsion (at least at the early stages). In addition, formal learning is graded and hierarchical in nature. There is another major distinctive feature of formal learning and that is certification. It is through formal learning that human knowledge is graded and certificated. Certification is one feature that has made formal learning to have the edge and take precedent over informal learning in the modern world that is dominated by human excellence.

One major difference between formal and informal learning is that the former takes place essentially in regulated environment (classroom) while the later can take place anywhere and everywhere but more in unregulated environment. The regulated environment is the school while the classroom learning is the major learning unit or center. Simply put by Jada (2004), classroom learning is learning that is organized and brought about in the formal school system. Classroom learning takes more time and in fact dominates that whole lot of lives. Because of its assumed significance and relevance (to effective living in modern world of intense competition) classroom learning receives more attention of people (the participant), the society or better still, the government (the major provider) and the business world (the major consumer and part-provider).

### LEARNING IN AN EMERGING WORLD

Change has been the most consistent feature of modern living. The changes have been so intense that people of the world have now required continuous adaptation mechanism to survive in the world of change. Information and Communication Technology has continued to dictate the pace in emerging learning world. With the world remaining consistently non-static, learning mechanism and approaches have tended to assume an equally dynamic orientation. Jada (2004) puts that the orientation now is that of learning that is flexible, democratic and personalized to provide people with the opportunity to compete in the emerging world. The question now is: What would be the features of learning in the emerging world? Below are some of the feature:

1. ***e-learning and interactive education:*** This is the major breakthrough in the learning world. E-learning is learning delivered through the internet, network or standalone computer. Howard (2005) and Nicholson (2005) support that 'it involves the use of electronic devices and application in the design and the delivery of learning'. E-learning alters both the process and the content delivery mode in learning. The process here include computer based learning, virtual classroom, and digital collaborations. The content delivery is done through the use of internet, audio/video tape, satellite television and CD Rom.
2. ***Flexibility:*** Learning will be more flexible in terms of orientation, design and environment in the emerging world. The informal learning concept of 'learn everywhere and anywhere' would assume greater significance. By the

dawn of the new era, the learning classroom would give way to open learning centre. The situation is fast presenting itself where learning is becoming a whole day affairs. From the usual 8a.m 2p.m basis, we are now approaching 8am to 8am learning design. Nicholson (2005), concluded that 'the presence of cyber café with their 'night browsing' facility and modems of many service providers are signs of the dawn of new era in learning without restriction of time and space'.

3. ***Changing role of the teacher:*** The teacher is the major purveyor of learning in the classroom environment. The open nature of learning in the emerging world would call for a change in the orientation of the teacher towards teaching and learning. At the end, the teacher may turn out to be a consultant in the learning process. With the preponderance of access to other information and learning sources, the era of teacher as the only custodian of knowledge and information may soon come to pass. Allah and Ghulam (2010) explain that interactive education as defined by CD Rom, learning classroom without walls (virtual classroom), video conferencing and self-programming groups would soon replace the usual classroom dominated by the teacher.
4. ***Changing value and orientation:*** The value system and orientation in the learning environment are also change bound. The usual authoritarian control model associated with the 'old' learning system is expected to give way to a democratic culture. Learners would have real choice in the emerging learning system.
5. ***Internationalization of the curriculum:*** Allah and Ghulam (2010) posit that 'the world is being reduced to a global village, national curriculum would give way to international curriculum'. Learning would become a universal system. Nationalistic or regional curriculum orientation would be replaced by global focused curriculum.

#### **STAGES IN E-LEARNING**

E-learning falls into four stages, from the basics to the advanced. The stages are:

1. ***Database Management System:*** It is a computer program devised to create, store, and manipulate databases. The databases are the most basic form of e-learning. It is a software that shows indexed explanations and guidance for software questions, alongside with step-by-step instructions for performing particular tasks in any delivery. They are usually interactive, in that one can either type in a key word or phrase to search the database, or make a selection from a list in an alphabetical order.
2. ***Online support:*** Online support is also a form of e-learning which functions in a similar manner with database management system. Online support comes in the form of forums, chat rooms, online bulletin boards, e-mail, or live instant-messaging support. It is slightly more interactive compared to database management system, online support also offers the opportunity for more specific questions and answers, as well as more instant answers.

3. ***Asynchronous training:*** This is another e-learning in the more traditional way of the word. It involves self-paced learning, which can either be CD-ROM-based, Network-based, Intranet-based or Internet-based. Allah and Ghulam (2010) emphasize that it may also include access to instructors through online bulletin boards, online discussion groups and e-mail, or, it may be wholly self-contained with some links to reference materials in place of any live instructor.
4. ***Synchronous training:*** Howard (2005) and Rogers (2009) explain that synchronous training is done in real-time with an instructor facilitating the training live. Participants that log on at a set time can communicate directly with the instructor and with each other in the training. One can raise his cyber hand for a question or comment and even view the cyber whiteboard to see what is happening. It takes a set period of time, that is, either for a single session to several weeks, months or even years. This type of training usually takes place through Internet Web sites, audio- or video-conferencing, Internet telephony, or even two-way live broadcasts to students in a classroom.

#### **ELECTRONIC LEARNING: THE DOMINANT APPROACH TO LEARNING IN THE EMERGING WORLD**

Electronic learning (e-learning) present a viable and cost effective option to the usual classroom face-to-face learning model. E-learning marks the beginning of a new wave of technology development in the learning world. It involves the use of the internet facilities which create, promote, deliver and facilitate the learning process. The components of e-learning according to Gaming and Simulations (2011) can include content delivery in multiple formats, management of the learning experience and a networked community of learners, content developers and experts. E-learning provides faster learning at reduced costs, increased access to learning, and clear accountability for all participants in the learning process. In today's era of computer age, organizations that implement e-learning provide their work force with the ability to turn change into an advantage. Rogers (2009) further points out that in an e-learning program, internet/intranet, CD Rom, audio and videotape, satellite TV, and teleconferencing are used to deliver the content of learning to the learner.

The physical presence of the teacher may not be necessary. E-learning promotes interactive learning as the learner interacts with both the teacher and other learners through the email and other electronic channels. The learner is also expected to act before getting the feedback. The participation of the learner is adequate in the learning process. For instance the learner must use the mouse to click before moving to the next learning task. In e-learning there is a shift towards electronically enhanced learning system which at the end would reduce some of the problems associated with the changing mechanically induced learning system. Rogers (2009) has given an instance as with the use of e-learning the learners may not necessarily have to spend the whole day looking for materials in the library. Internet search engines like Google, Mamma, Yohoo search etc. are available and more effective.

Unlike the conventional manual search in the library, internet search engines are faster and provide other related materials on the topic being searched. It is not as if the library and other components of the learning environment in the conventional learning approach do not have space in the emerging world of e-learning. The change here is their roles and how they carry out such roles in the new approach. According to Kitchenham (2011), with proper use and implementation, e-learning has the potential to transform learning and make it more meaningful, participatory and interactive. Unlike in the face-to-face arrangement where the emphasis is on teaching than learning, e-learning emphasizes learning than teaching. E-learning material and curriculum cannot really be taught. They can only be learned.

#### **THE TEACHER FACTOR AND THE E-LEARNING**

Nigerian teachers have spent a considerable length of time and energy in face-to-face learning system. The teachers' preparation process they went through the old orientation of 'be all' in the classroom. It should therefore be expected that they may not be receptive to any approach that tend to make them less visible in the classroom. Teachers have to be encouraged and motivated to adapt their teaching style to the medium of the current e-learning system and in order to remain relevant in the new dispensation. The pertinent question now is: how do we prepare the Nigerian teacher to cope in the world of learning? This question has to be considered against the background of the environment of the school which we have tried to present in the preceding sub units. An effective teacher is a product of interaction between initial teacher education, continuing professional development (CPD) and the environment of work.

**E-LEARNING AND RETENTION:** E-learning comprises many elements that make learning a new material, a new process or a new program, more interesting, is what makes it more effective. Obviously, Kitchenham (2011) further states that it is not every type of training that can be turned into an e-training, but many can with excellent results. Therefore the keys to successful e-learning include: varying the types of content, creating interaction that engages the attention of the learner, providing means of immediate feedback, encouraging interaction with other e-learners and an e-instructors.

**E-LEARNING IS SELF-PACED:** E-learning is highly individualized in which it lets the learner go through the course at his own pace. This helps to avoid missing any information in situations where he has to leave the course or he just doesn't catch what the instructor said during the learning session. Garber (2005) appends that e-learning courses offer user-controlled opportunities which are not feasible in face-to-face training classes. For instance, if the learner is trying to distinguish between the sound of an irregular engine from that of a regular engine, on clicking the screen icons it allows the learner to listen at his own pace and time, and replay the sound as often as he likes. This self-paced element helps make e-learning actually effective.

### **BENEFITS OF E-LEARNING PROGRAM**

Online teaching and learning process provides a new access route to millions of qualified, motivated, able and willing teachers and students. The development of e-learning program brings about a revolution in teaching and learning processes, Which definitely, at the bottom heart of such revolution is a complete new pedagogy, for which most teachers need to be trained for the program, and for which, most of the administrators need to understand the program for proper and effective take off. Pablos (2011) asserts that many untrained teachers are fooling themselves, and being fooled into believing, that all they need do to be part of this revolution is to convert the existing courses to Web-page format and be prepared for an e-mail transactions. As much as e-learning can be flexible, cost-effective and an alternative to the usual face-to-face classroom learning, it can also be a colossal waste of time and money if not implemented or managed properly by the interesting organization. E-learning enables the learners and instructors to share ideas via a virtual chat room. E-learning also enhances students' interest, motivation, and interaction throughout the learning process.

### **CONCLUSION AND RECOMMENDATIONS**

E-learning offers a more effective learning experience, since the learner participates in the learning process and receives individual attention, even when the instructor and the learner are at different locations. This participation in learning is by itself a positive learning experience. The atmosphere provided by e-learning allows more effective interaction between the students and instructor. Therefore, it can be as effective as the traditional classroom learning environment where the seating space, etc, could be inadequate. In e-learning, there is reduction in the physical contact between the learner and the teacher. There is also less contact but much more intellectual contact. E-learning has definite benefits over traditional classroom training. While the most obvious are the flexibility and the cost savings one needs not to travel or spend excess time away from work, there are also others that might not be necessarily so obvious.

Content knowledge and pedagogy are gained during the initial preparation process while continuing professional development CPD sustains the teacher on the job through exposure to professional renewal programs. And it is through the CPD that the knowledge and skills of existing teachers are sustained and refined to meet the challenges of the modern realities of their job. The Nigerian teacher is a product of the face-to-face teaching and learning model that renders the initial training and education IET of the teacher virtually inadequate in the new orientation. If the IET is considered inadequate, CPD should fill the vacuum. The point here is that CPD for the teacher has to be restructured and adequate to enhance teacher's competence in the new era.

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