

E- LEARNING AND OPEN AND DISTANCE LEARNING: ISSUES, TRENDS AND CHALLENGES IN THE 21ST CENTURY

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Abstract

This paper discusses the issues, trends and challenges of open and distance / e- learning in the 21st century. Distance learning is the education of students who may not always be physically present in a school, open and distance learning played a vital role in providing high quality instructions for the learners. E-learning is one of the most efficient tools for advancing knowledge, skills and development in any nation. This paper reviews the concepts of distance learning, objectives of e- learning, potentials of distance learning, tools for distance learning and challenges facing e-learning education. It was recommended that alongside the modes of delivery being used course materials can be delivered through other alternative media like radio, TV among others which are more accessible to open and distance learning , appointment of suitable qualified educators to raise the standard of the distance education system and government at all levels, non-governmental organizations and private sectors should assist to equip university e-learning centres with model equipment for effective delivery of lectures to students with e-learning technologies.

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's to be self-reliant and useful members of the society (FRN, 2004).

Distance education or long distance learning is the education of students who may not always be physically present at a school. Traditionally, this usually involve correspondence courses wherein the student corresponded with the school via post. Distance education is 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 numbers of learners whenever they may be (FRN, 2004). Its major goal in Nigeria is to provide access to quality education and equity in educational opportunities for those who otherwise would have been denied (FRN, 2004). The distance learning revolutionised the scope of the correspondence program and helped to create a respectable learning alternative to the traditional form of education. It has been at the forefront of developing new technologies to improve the distance learning services as well as undertaking research in other disciplines. It enables individual's acquire practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life (FRN, 2004).

Concept of Distance Learning

Distance education is traditionally defined as, any educational or learning procedure in which the guide and the student are separated geographically. There is no interaction between the teacher and the learner/student. According to UNESCO (2002), the term open and distance learning represents approaches that focus on opening access to education and training provision, freeing learners from the constraints of time and place flexible learning opportunities to individuals and groups of learners. Creed as cited in (Ezeonwurie, 2016), defines distance education as an educational process in which a significant proportion of the teaching is conducted by someone far removed in space and/or time from the learners. Thus the concept of distance learning suggest an educational approach designed to reach learners in their homes, offices, shops among others. To provide learning resources for them to qualify them without attending formal classes in person, or create opportunities for lifelong learning, no matter where or when they want to study.

Distance education also known as distance learning or distributed learning, involves acquiring information from methods other than the traditional way of gaining knowledge- attending institutions. Some recent definitions have focused on it as a new development, involving advanced technology.

Present-day distance learning is influenced a lot by computer and electronics technology. The technology has now made it possible for the guide and student to connect almost immediately. Study resources can be delivered instantly through computers, satellites, internet, cable television, interactive video among others. According to Roblyer & Edwards, as cited by (Njoku,2016), distance learning is the acquisition of knowledge and skills through mediated information and instruction encompassing all technologies and other forms of learning at a distance. This is a definition that does not distinguish formal and informal learning or different types of distance (temporal and physical) learning. Distance learning is seen as an organised instructional programme in which teachers and learners are physically separated. This definition is even specific in that it does not posit any effect on the learner and mainly describes the existence of a programme in which presumably, no learning at all might occur.

Distance learning is the type of education that takes place where the teacher and students are separate by physical distance through the use of technological tools. The technological tools according to Koomson, as cited in (Nang, 2016), include audio, text and print in conjunction with face to face communication used to bridge instructional gap. Distance learning is a channel for widening access to mass education. It is a field of education that focuses on individual basis, to students who are not physically present in a traditional setting such as the classroom. Distance learning includes the various forms of study at all levels which learners are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which nevertheless, benefits from the planning, guidance and tuition of a tutorial organization. Distance learning refers to policies and practices that permits entry to learning with no or minimum barriers with respect to age, gender, or time constraints and with recognition of prior learning, Glen in (Olaniyi,2016), in distance learning the instructor and the instructional strategy are subsumed into the learning material popularly referred to as study materials that have been designed as a self-directed learning guide for the student, (Nang, 2016).

Objectives of Distance Learning

The following were stated as objectives of distance learning by Aderinoye, ascited in (Ezeonwurie, 2016):

- a. To equip the adult with everything he /she needs for life in order to be relevant to his/her society by helping to solve some of its problems.
- b. To provide functional literacy education for adults who have never had the opportunity to any form of education.
- c. To get the adults either as an individual or as a group, to learn and through learning to change their attitude and behaviour and improve personal lives.
- d. To help in reducing the level of ignorance and illiteracy which causes industrial labour shortage in the country.
- e. To help communities with lower literacy rate among their adult populations grow their general economies and reduce poverty in the country.
- f. To assist adults in attaining higher levels of literacy, so that they can find better paying jobs and improve overall community health and family lives.
- g. To give adult citizens of the country aesthetic, cultural and civil education for public enlightenment.

Potentials of Distance Learning

Distance education seeks to assist in the achievement of equivalence of providing educational opportunities for adults and out-of-school youths, it enables those who cannot or do not wish to attend conventional school to study for either the Secondary level or the Tertiary level programmes through Open and distance Learning (ODL). Distance education also answers the requirements of the national development plans aimed at providing trained and qualified human resources as well as increasing the opportunities available for continuous education, training and professional development for those already working (UNESCO, 2002).

Ajay, in Okolocha & Nwaowa, (2016) asserts that distance education makes it possible for youths and older people, men as well as women, and house wives to invest their leisure time in educating themselves and gaining the skills and experience that they desire. The schedules for

distance learning are more open and allow for students, parents and professionals to take the classes whenever it fits into their schedule. This is beneficial over classroom education that requires students to schedule work and childcare around the class time, (Jersey, 2012).

To the learner, distance learning means more freedom of access, and thereby a wider range of opportunities for learning and qualification. The barriers that may be overcome by distance learning include not geographical distance, but also other confining circumstances such as personal constraints, cultural and social barriers and lack of educational infrastructure. For the student it is often a cheaper alternative to pursuing a course through conventional methods. Since many people cannot afford to leave their work in order to study, it is important that distance education and training may be combined with work.

Nwaocha and Iyiyama in (Nang,2016) opined the following as potentials of distance learning:

Access: Distance learning increases people's access to education because people who would have found it impossible to attend the conventional school system benefit from distance learning. This is in keeping with the stated objectives of the national policy on Education that maximum efforts shall be made to enable those who cannot benefit from higher education to be given access to it. Such access may be through universities or correspondence courses, part-time, e-learning and study programmes (FGN, 2013).

Social Enhancement: Distance learning allows the learner the freedom to access a wider range of opportunities for learning and to qualify them by improving their social status. It is often a cheaper means of attending school for the students since some people may not be able to leave their places of work to go to school full time/regular. Bankers, security agencies, health workers and civil servants registered in large number for distance learning to enhance their employment growth and social status.

Economic Growth: Distance learning is an avenue for institutions to improve their Internally Generated Revenue (IGR). It reduces poverty level among the institutions since students can study while at work.

E-learning

E-learning is one of the most efficient tools for advancing knowledge, skills and development in any nation. Electronic learning, also known as e-learning, is generally defined as instruction and learning experiences that are delivered via electronic technology such as the Internet, audiotape and videotape, satellite broadcast, interactive television, and CD-ROM. Web-based learning, computer-based learning, and virtual classrooms are some of the processes and applications used to distribute e-learning. E-learning is a growth industry in both education, business and industry, (Olatola, and Olatoye, (2015). Although e-learning has the capacity to provide greater access to resources and people, it also raises a number of questions. The overall quality of e-learning has been an issue. Surveys of e-learners have established that much e-learning fails to live up to a learner's expectations. In an effort to keep costs down, many e-learning providers have failed to capitalize on available technology such as streaming audio and video. In the "rush to e-learning," the emphasis has been largely on the "e" and not on the "learning." Knowledge about how adults learn has been largely ignored. Although greater numbers of individuals have more learning opportunities because of the growth of e-learning, questions about who it benefits and who it leaves out still remain (Olatoye, 2015).

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 courseware (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-learning 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. Ekein (Olutola&Olatoye,2015). The changes in education have led to a paradigm shift from teacher centeredness through to learner centeredness(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. E-learning exploits interactive technologies and communication systems to improve the learning experience. It has a potential to transform the way we teach and learn across the board. It can raise standards and widen participation in lifelong learning. It cannot replace teachers and lecturers, but alongside existing methods it can enhance the quality and reach of their teaching (Joint Information System Committee Development Group, 2004). E-learning enhances learning by extending and supplementing face-to-face learning rather than replacing it. It enables learning to take place when it is most needed (just in time as distinct from just in case) and when it is most convenient. Learning can be provided with specific learning objectives. It is 'learner-centre 'in that it can be customised to suit an individual's learning needs- learners can chose different learning objects within an overall package.

Armstrong, cited in Odili,(2016) pointed out the following as benefits of e-learning:

- a. Convenient due to minimal disruption of family and work life.
- b. Elimination of space, time and geographical constraints.
- c. Increased peer interaction due to a collaborative rather than competitive learning environment.
- d. Increased interaction with more accessible teachers with decreased feedback turn around time.
- e. Increased quality of learning with deeper critical reflection and systematic scaffolding of ideas taking place.

E-learning Tools for Distance Learning

E-learning tools and technologies used in online training makes use of many technologies. Some of which have been developed specifically for it, whilst others conveniently complemented the learning process. Communication technologies are also widely used in e-learning starting with the use of:

E-mail: e-mail account enables the teachers and students to communicate instantly. It enables the students to have attachments and submit assignments.

Content Management System (CMS): E-learning makes good use of database and content management system technologies. These two work hand in hand to store course contents, test results and students records. The data is stored in the database and it provides a user interface for the user to add, update and delete data.

A Virtual Learning Environment (VLE), also known as a learning platform, simulates a virtual classroom or meetings by simultaneously mixing several communication technologies. Web conferencing software enables students and instructors to communicate with each other via webcam, microphone, and real-time chatting in a group setting. Participants can raise hands, answer polls or take tests. Students are able touse whiteboard and screencast when given rights by the instructor, who sets permission levels for text notes, microphone rights and mouse control.

Learning Activity Management System (LAMS): This technology is used for designing, managing and delivering online collaborative learning activities. This is done through a visual authoring creating sequences of learning activities. These activities include a range of individual tasks, small group work and whole class activities based on both content and collaboration.

Computer/Laptops and Desktop: These tools/ equipment enable learners and educators to access websites as well as applications in conjunction with the software and course ware to facilitate training. Philip, (2018) opined that mobile devices can be used as tools for distance education, they can be effectively usedfor learning purposes; they include: Apple iPhone, Apple iPad, Samsung Galaxy Note, Google Nexus 7, fire HD among others. The mobile devices allow the students at distance to access textbooks, course materials, educational applications as well as videos.

Challenges Facing E-learning in the 21st Century

E-learning/open and distance learning has come with some challenges that need to be tackled in order to achieve its stated objectives, these challenges are opined by (Odili, 2016) and (Ezeonwurie, 2016):

Lack of awareness: One of the major challenges of eLearning is that the employees or the learners are unaware of effectiveness of eLearning. They might feel that eLearning is not as effective as classroom training and that the trainees would miss the opportunity of face-to-face interaction.

Connectivity: This has to do with poor internet connectivity which constitutes a threat to smooth operation of an online project in many institutions of learning. Occasionally erratic functionality often creates dysfunction for the users.

Equipment: E-learning requires equipment that can facilitate learning, but in some institutions equipment such as computers, digital technology, and internet are not available/ or inadequate for the students for proper utilization.

Instructor incompetence in using online platform: Most practicing instructors are unaware of the existence of web facilities and even fewer are not qualify or efficient users. E-learning platforms are unfamiliar to a large percentage of instructors who are already deeply entrenched in the traditional face-to-face delivery mode.

Lack of face-to-face interaction with lecturers: Students may have challenge in self-evaluation because of lack of face-to-face interaction with their course lecturers. This could likely attribute to ignorance of the elements involved in e-teaching and to the separation from teachers, who they are accustomed to seeing in traditional physical classroom.

Low quality: The issue of low quality is another challenge faced by e-learning/open distance learning. Most of the students who attend traditional class tend to perceive the on-line products as being of lower quality than the product of a face-to-face programme.

Inadequate Electrical power supply: Another major challenge is the issue of power supply. Power supply is a national challenge in the nation and the instructional equipment cannot function without electricity.

Training: No combination of connectivity, equipment and software will achieve anything if people are not trained to use them. Some lecturers and students are not trained to make use of some of the e-learning equipment, this affect e-learning programme.

Evaluating effectiveness: One of the common challenges in e-Learning could be to evaluate whether your course has the intended impact on the learners. How do you determine that your course is attaining its goal of meeting the learning requirements of the student or trainees?

Technology Barrier: Most of the students who participate in the distanced learning have not even seen some of this equipment's let alone knowing how to make use of them in distance learning.

Inadequate Fund: Most of the equipment's used for distance learning programmes are very expensive and many institutions of learning cannot afford to make them available for use and the students as well most cannot afford to buy for personal use.

Software: Software enables educators to design and develop learning content. These software are costly and not available for use in some of the learning centres, to facilitate e-learning programme.

Conclusion

E- Learning and open & distance learning in the 21st century is important because it makes education accessible to does who otherwise would have been denied. Distance learning uses a variety of media and technologies to provide and /or improve access to good quality education for large numbers of learners wherever they may be. Distance learning is important because it reduce cost while maintaining quality of learning with deeper critical reflection and systematic scaffolding of ideas taking place. It was noted despite its numerous benefits that there are problems of connectivity, equipment, Inadequate fund, technology barriers, lack of face-to-face interaction with lecturers, inadequate electrical power supply, and low quality. E-learning can be improved through training of qualified staff, funding of institutions of learning by the government, the government should assist to equip institutions with e-learning centres with model equipment for effective delivery of lectures to students with e-learning technologies.

Recommendations

The following are recommendations that would go a long way in solving the challenges of e-learning in the 21st century:

1. Information and communication technology related courses are to be taught so as to equip students early enough which aid those eventually when they engage themselves in distance learning programme.
2. Alongside the modes of delivery being used presently course materials can be delivered through other interactive media like radio, Television among others which are more accessible to open & distance learners to make learning easy.
3. Institutions of learning should appoint suitable qualified educators/staff to raise the standard of the distance education system.
4. Government at all levels, non-governmental organizations and private sectors should assist to equip institutions with e-learning centres with model equipment for effective delivery of lectures to students with e-learning technologies.
5. Standardization of the learning modules should be given priority to safeguard the reputation of the distance education.
6. Learners should be evaluated appropriately and the process of grading students should be taken seriously.
7. Institutions/e-learning centres should employ capable computer experts to train lecturers on how to use e-learning technologies to deliver their lectures.
8. Private sectors, non-governmental and voluntary organizations should assist to equip e-learning centres.
9. The increase in the number of tutorial centres, allotment of enough time, enhancement of the promotion service offered, and attractive pay for tutors, as well as better awareness and support from education would make distance education more successful and attractive.
10. Power supply should be adequate or improved upon so as to enhance the use of e-learning programmes

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