CHAPTER FOUR

Distance Learning: A Viable Educational Tool at COVID-19 Pandemic

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Abstract
This paper focuses on distance learning: a viable educational tool at COVID-19 pandemic. The paper considered e-learning, mobile learning and online learning as viable tools for distance learning at COVID-19 pandemic. The study presented the benefits of distance learning on education at COVID-19 pandemic which include access to education, cost, inclusion, environment, quality education, social enhancement and economic growth. The study concluded that distance learning provides educational opportunities needed by anyone, anywhere, anytime and could be used as a viable educational tool at COVID-19 pandemic. The study suggested among others that Ministry of Education should support the implementation of distance learning education in all schools as a viable educational tool at COVID-19 pandemic.

Keywords: Distance Learning, Education, COVID-19 Pandemic**.**

Introduction
Distance learning comes from using information communication technology as to broaden opportunity and help students develop the skills, they and their countries need to thrive in the 21st century. Distance learning has a history that spans almost two centuries, (Spector, Mamill, Merrienboer & Driscoll 2008). This period represents significant changes in how learning occurs and how distance learning is communicated. From basic correspondence through postal service to the wide variety of tools available through the internet, society

has embraced new forms of teaching and learning through the years. Such as, on-line learning, is known to have a history of access beginning in the 1980's whereas another term, referred to as e-learning, does not have its origins fully disclosed (Harasim, 2000). It is therefore, important to know how the first distance education course in the modern sense was provided by Sir Isaac Pitman in the 1840s who mailed tests transcribed into shorthand on postcards and received transcriptions from his students in return for correction. The element of student feedback was a crucial innovation of Pitman's system. This scheme was made possible by the introduction of uniform postage rates across England in 1840. This early beginning proved extremely successful and the photographic correspondence society was founded three years later to establish these courses on a more formal basis. The society paved the way for the later formation of Sir Isaac Pitman Colleges across the country.

The University of London was the first University to offer distance learning degree, establishing its External Programme in 1858. The background to this innovation lay in the fact that the institution (later known as University College London) was nondenominational and given the intense religious rivalries at the time when there was an outcry against the "godless" The issues soon boiled down to which institutions had degree granting powers thus it is usual in most academic and scientific fields to have a common, yet distinct, vocabulary. Precise definitions are essential for communication within specific domains for instructors, students and, particularly, researchers who must construct operational definitions. It is strange that in a field as old as distance learning, such a distinct shared vocabulary does not yet exist. Many authors have used the same terms to mean different things. Often, key distance learning terms are used without defining them, thus either assuming that the meaning is universal or simply ignoring the issue. The United States of Distance Learning Association defined distance learning in 1998 (Roblyer & Edwards, 2000) as 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 organized instructional programme in which teachers and learners are physically separated. This definition is even less specific in that it does not posit any effects on the learner and mainly describes the existence of a programme in which presumable, no learning at all might occur.

Distance Learning on Education at COVID-19 Pandemic

Distance learning is the type of education that takes place where the teacher and students are separated by physical distance through the use of technological tools. The technological tools according to Koomson, (2009) include audio, video, text and print in conjunction with face-face communication used to bridge instructional gap. All over the world distance learning remains the panacea to COVID-19 pandemic on education. Wikipedia (2014) described distance learning as a mode of delivering education and instructions, often on an individual basis to students who are not physically present in a traditional setting such as the classroom. The national policy of education stated that distance learning is a mode of education delivery where learners and teachers are not in physical contact. Also, distance learning uses a variety of media and technologies to provide quality education for large number of learners (FGN, 2013).

The National Policy of Education further reported that the goal of distance learning in Nigeria among others is to provide more access to quality education and equity in educational opportunity. Usoro (2000) affirmed that distance learning includes the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with the 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 could also be referred to an educational approach in which there is a separation of the learner and the teacher in time and space. In distance learning, the instructor and the instructional strategy/methods 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. Alaezi (2005); Dodds (2005); Dhanarajan (2008); and Glen (2005) stated that distance learning is the type of education that takes place outside the conventional school system and an educational process in which a significant proportion of the teaching is conducted by someone far removed in space and time from the learners.

According to UNESCO (2002), distance learning is one of the most rapidly growing fields of education, and its potential impact on all education delivery systems has been greatly accentuated through the development of Internet-based information technologies, and in particular the World Wide Web. Distance learning focuses on providing solution to COVID-19 pandemic through education and training provision, freeing learners from the constraints of time and place and offering flexible learning opportunities to individuals

and groups of learners. Distance learning is therefore a means by which the teacher is taken literally to the student. Teaching and learning process in which students are separated from the teachers by a physical distance are often bridged by communications technologies. Thus Estelami (2013), stated that distance learning education courses are made up of a number of course components or learning materials which can include teaching texts, study guides, course guides, readers or anthologies, assignments, television broadcasts or videotapes, radio broadcasts or audiotapes, software or online information and data, CD-ROMS, textbooks and laboratory materials. Thus, distance learning serves as a viable educational tool at COVID-19 pandemic. The COVID-19 pandemic has led over 90% of the world's student population to be out of school which no one was prepared for the unprecedented learning crisis that needs to be addressed immediately. Therefore, distance learning has become the only means for educational institutions to keep the doors of learning open.

 Viable Tools for Distance Learning at COVID-19 Pandemic
1. **E-learning:** The origin of the term e-learning is not certain, although it is suggested that the term most likely originated during the 1980's, within the similar time frame of another delivery mode, online learning. While some authors explicitly defined e-learning, others imply a specific definition or view of e-learning in their article. These definitions materialize, some through conflicting views of other definitions, and some simply by comparing core characteristics with other existing terms. Nichols (2003), defined e-learning as strictly being accessible using technological tools that are web-based, web-distributed, or web-capable. The belief that e-learning not only covers content and instructional methods delivered via CD-ROM, the internet or an intranet seems to be correct. Deducing from the above, e-learning can be said to be learning through computer internet connectivity which is gradually putting the conventional classroom instruction into oblivion.
2. **Mobile Learning:** The concept of mobile education or mobile learning is still emerging and still unclear. How it is eventually conceptualized will determine perceptions and expectations, and will determine its evolution and future. There are different stakeholders and factors at work in this process of conceptualizing mobile education and the outcome is uncertain. There are obviously definitions and conceptualizations of mobile education that define it purely in terms of its technologies and its hardware, namely that it is learning delivered or supported solely or mainly by handheld and mobile technologies such as personal digital assistants, smart phones or

wireless laptop PCs. These definitions, however, are constraining, techno-centric, and tied to current technological instantiations. Mobile technologies alter the nature of work (the driving force behind much education and most training), especially of knowledge work. Mobile technologies alter the balance between training and performance support, especially for many knowledgeable workers. This means that 'mobile' is not merely a new adjective qualifying the timeless concept of 'learning-mobile learning' is emerging as an entirely new and distinct concept alongside the 'mobile workforce' and the 'connected society'. Deniel (2005) stated that mobile devices create not only new forms of knowledge and new ways of accessing it, but also create new forms of art and performance, and new ways of accessing them (such as 'pop' videos designed and sold for iPods). Mobile devices are creating new forms of commerce and economic activities as well. So mobile learning is not about 'mobile' as previously understood, or about 'learning' as previously understood, but part of a new mobile conception of society. This may contrast with technology enhanced learning or technology supported learning, both of which give the impression that technology does something to learning.

3. **Online Learning:** Online learning can be the most difficult to define. Some prefer to distinguish the variance by describing online learning as "Wholly" online learning; (Oblinger & Oblinger, 2005). Some authors simply reference the technology medium or context with which it is used (Lowenthal, Wilson & Parrish 2009). Others display direct relationship between previously described modes and online learning by stating that one uses the technology used in the other. Lowenthal, Wilson & Parrish (2009) further described access to learning experiences via the use of some technology and identified online learning as a more recent version of distance learning which improves access to educational opportunities for learners described as both nontraditional and disenfranchised. The accessibility of online learning, connectivity, flexibility and ability to promote varied interactions. (Benson, 2020) in particular not only alluded to online learning's' relationship with distance learning and traditional delivery systems but made a clear statement that online learning is a newer version or an improved version of distance learning.

Benefits of Distance Learning on Education at COVID-19 Pandemic
1. **Access:** Distance learning is beneficial to students who have familiar or social responsibilities that prevent them from accessing campus-based education (Tait, 2018). Distance learning can reach many marginalized groups, including women and persons with disabilities helping them access learning from any place, at any pace and

at the times convenient to them (UNESCO, 2016). People who would have found it impossible to attend to conventional school system benefit from distance learning

2. **Cost:** Distance learning achieves economies of scale which makes it possible to reduce the cost for both students and institutions. In mega open universities and open schools, the costs per student can be anything from one half to one third of the costs of a campus institution (NKC 2009). Online provision too can result in significant cost savings. In Technical and Vocational Education and Training (TVET), blended approaches to distance learning combined with workplace learning reduce costs.

3. **Inclusion:** With 15% of the world's population experiencing some form of disability, the participation of public works department in education remains dismally low (WHO 2011). Persons with disabilities prefer distance learning because of its flexibility, affordability, ability to study at home and the degree of anonymity that it provides. Assistive technologies and resources can accommodate specific learning requirements in different contexts (Boskic, Starcher, Kelly & Hapke 2008).

4. **Environment:** The education sector contributes to both direct and indirect emissions, with an impact on environmental degradation. Studies show that distance teaching models have a significantly lower environmental impact than face-to-face teaching modes (Caird, Lane, Swithenby, Roy & Potter, 2015).

5. **Quality:** Research shows that there is 'no significant difference' between distance and traditional classroom instruction in terms of learning outcomes. If done well, distance learning is as effective as campus provision in leading to learning outcomes and satisfaction. Deniel (2005) affirmed that distance learning is based on a student-centred approach to education, facilitating lifelong learning skills such as self-directed learning, discipline and critical thinking.

6. **Social Enhancement:** Distance learning schemes hold a number of potential benefits for various stakeholders in the education and development process. Jimoh (2013) stated that distance learning means more freedom of access as well as a wider range of opportunities for learning and qualifications, thereby improving the social status of many offering the programme. Jimoh (2013) also stated that distance learning is often a cheaper means of attending school for the student since some people may not be able to leave their places of work to go to school full time. Men of the armed forces, security agencies and civil servants registered in large numbers for distance learning to enhance their employment growth and social status.

7. **Economic Growth:** Distance Learning is an avenue for institutions to improve their Internally Generated Revenue. Distance Learning is an avenue for many people to

become learned and be better workers in any profession they choose or are currently engaged in. Students are allowed to read up to whatever level they want, hence contributing to the economic growth of the nation through better performance. For employers, distance learning offers the possibility of organising in-service training for their staff without necessarily releasing them for long periods of productive time. With sufficient number of employees being trained, distance learning is often the most cost-effective means. For the government and educational policy makers, the system is a panacea for the perennial problem of provision of equitable and accessible education in an affordable and cost-effective way. Distance learning has also reduced poverty levels among teachers, since programmes are attended while at work. The government too incurs little cost on the training but develops the manpower to improve the economic situation of the nation. Jimoh (2013) asserted that distance learning helps extend the market for education to clients who have not been previously served. Sometime distance education is most renowned descriptor used when referencing distance learning even in the mixed of COVID-19 pandemic

Education at COVID-19
Education is the key to national development. This is because education unlocks the economic potentials of the people, empowers and equips individuals in the society to participate in and benefit from their national economy. Education facilitates economic development and provides the basis for transformation. Education therefore remains a vital transformational tool and formidable instrument for socio-economic empowerment, wealth creation, and employment generation, poverty alleviation and value orientation which government has clamored for so long. Education is the essential tool for sustainability while distance learning a viable educational tool at COVID-19 pandemic. The present global COVID-19 pandemic suggests that the entire world is struggling for qualitative education (Iweyah 2020). Suffice it to be mentioned that distance learning education increase the opportunity to the learners

Effect of COVID-19 Pandemic on Education
Corona viruses are a large family of virus which may cause illness in animal or humans. In humans several corona viruses are known to cause respiratory infections ranging from the common cold to more several diseases such as middle east respiratory syndrome and acute respiratory syndrome. The most recently discovered corona virus is called COVID-19. The COVID-19 pandemic grew quickly from its first emergence to a truly global

phenomenon. The first reported illness onset date for COVID-19 was December 1, 2019, and the first hospital intake date was December 16, 2019 (Huang et al.,2020). By December 30, 2019, a cluster of pneumonia patients in Wuhan, China was reported to the World Health Organization's Beijing office (Guarner, 2020). Clinical presentations indicated a shared viral strain of pneumonia which was named 2019-novel COVID or 2019 novel corona virus. Thus, an epidemiological alert was raised by local health authorities after the viral pneumonia cluster was recognized just under two months after the first symptoms ever caused by the virus. The World Health Organization declared a Public Health Emergency of International concern on COVID-19 pandemic (World Health Organization (2020). The rapidity of this spread can be understood by characteristics of the virus itself. COVID-19 has already far surpassed the number of total cases and fatalities of its closest viral comparators,

The World Health Organization declared Coronavirus as COVID-19 pandemic as a global health problem and a new strain of virus which has not been seen in human body. This virus can affect the lungs and it is capable of causing cold and catarrh. COVID-19 virus spreads from one individual to another through coughing and sneezing thus world health organization has encouraged citizens to keep social distancing. This means that one should try to avoid contact with one another, especially the ones that have shown signs of COVID-19 virus and also avoid crowded places. According to the World Health Organization (2020) 3,175,207 global cases were reported, including 224,172 deaths as part of the effort to contain the spread of the corona virus. The spread of COVID-19 virus has cursed organizations, industries, schools, universities, and offices to close down so that people can stay at home and prevent further spreads. Bai et al. (2020) Affirmed that the high incident rate of serious symptoms and mortality rape during the COVID-19 pandemic has resulted the emergence of distance learning education institutions.

Conclusion
It can be concluded from this study that distance learning provides educational opportunities needed by anyone, anywhere and at any time. Distance learning is relevant because it makes education to be accessible, reduces cost while maintaining quality. Both students and teachers find distance learning as a viable educational tool at COVID-19 pandemic which has proved effective on education and skills development in reaching students from the remote deserts in the world and to large numbers of learners across the globe. Distance learning also allows learning to continue while observing traveling

restrictions and physical distancing as measures to prevent the spread of COVID-19. Pandemic Distance learning is built around sound pedagogy and enhanced by the power of technologies. From all the definitions and discussions in this paper, one is inclined to believe that distance learning in any form has transformed educational system through the use of technologies in the face of the effects of COVID-19 pandemic on education.

Suggestions

Based on the afore-mentioned issues discussed in the study, the following suggestions were made:

1. Ministry of Education should direct all schools that are running educational programme to commence distance learning
2. All course contents and delivery methods should be evaluated by curriculum planners to ensure that academic standards of regular programmes are comparable to courses in distance learning to ensure uniformity.
3. The federal government should subsidize distance learning progrmmes in all schools in Nigeria as a means of widening access to educational programmes
4. Access to educational opportunities for all is a major challenge facing many countries. Therefore, curriculum planners and developers should implement distance learning so as to increase and broaden educational programmes
5. In order to provide solutions to education at COVID-19 pandemic, educational planners should involve professionals to conduct needs assessment concerning students' requirements for alternative courses and methods of instructional delivery of education through distance learning
6. Federal and state governments should support distance learning with modern facilities and gadgets so as to ameliorate the effects of COVID-19 pandemic and any other disaster such as epidemic, earthquake and climate change on educational programme.

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