#### **CHAPTER TWO**

# DISTANCE LEARNING: AN ACADEMIC SOLUTION AT COVID-19 PANDEMIC ERA

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#### **Abstract**

Distance learning is a type of education which takes place in the internet whereby electronic means are used to distribute the learning material, keep students in touch with teachers, and provide access to communication between students. In distance learning students learn, study, and qualify in their chosen subject online without having to attend an exam center, a college building, or university campus. This paper focuses on distance learning: solution to COVID-19 pandemic. Concept of distance learning, advantages and disadvantages of distance learning, training of teachers for distance learning, devices used for distance learning, requirements for teachers and students for distance learning, skills need of teachers for online classroom instruction, platform that could be used for distance learning, solution to COVID-19 pandemic through distance learning are considered in this paper. In conclusion distance learning, implementing information technologies, especially through mobile learning, is considered as the present and the future of learning and an integral part of any kind of educational process in the future. Recommendations made include teachers/instructors should be trained on how to use various distance learning platforms through which teaching and learning could take place among others.

**Key words**: distance learning, COVID-19, skills, tools and solution

#### Introduction

The coronavirus disease (COVID–19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 which emerged in Wuhan China and spread around the world. The outbreak was noticed in Hunan seafood market Wuhan city of China and rapidly infected many people. The human to human spreading capability of this virus occurs due to close contact with an infected person, exposed to coughing, sneezing, respiratory droplets. The virus has led to the death of many while some are in isolation. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious complications. The best way to prevent and slow down transmission is for one to be informed about the COVID-

19 virus disease, its causes and how it spreads. One needs to protect oneself and others from infection by washing hands or using an alcohol-based sanitizer rub frequently, avoiding touching of the face, social distancing and wearing of facemask. The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes.

Distance Education is that type of education in which students may not always be physically present at a school. In this type of education students learn, study, and qualify in their chosen subject online without having to attend an exam center, a college building, or university campus. It takes place in the internet whereby electronic means are used to distribute the learning material, keep students in touch with teachers, and provide access to communication between students. Distance learning can use other technological formats as well including television, DVDs, teleconferencing, and printable material, but the immediacy and functionality of Web learning has made it a first choice for many distance learners. Online programs often take advantage of a number of emerging technologies to make keeping in touch and effectively communicating ideas easier and more efficient than ever before and students may find themselves using interactive videos, e-mail, and discussion boards to complete their lessons (Velasenko & Bozhok, 2014). According to Mehrotra, Hollister, and McGahey (2001), distance learning or distance education, is not a future possibility for which higher education must prepare, it is a current reality creating opportunities and challenges for educational institutions; a reality offering students expanded choices in where, as how, and from whom they learn; a reality making education accessible to ever larger numbers of persons. A number of universities offering distance education programs have increased, that the courses have become more varied and that number of students applying for these programme is rising, raise the question of whether the given education is as efficient as it could be.

### **Concept of Distance Learning**

The term distance learning represents approaches that focus on opening access to education and training, freeing learners from the constraints of time and place. It offers flexible learning opportunities to individual and group learners. This is the most rapidly growing segment of education. The potential impact of distance learning on all education has been emphasised by the development of Internet-based technologies, particularly the World Wide Web. It can be described as learning involving implementation of information, computing and communications technology applications in more than one location (Webster & Hackley, 1997). Teachers and the students are separate in the spatial dimension and that this distance is filled by using technological resources (Casarotti, Filliponi, Pieti & Sartori, 2002).

Distance learning is a contributing force to social and economic development. It is fast becoming an essential part of the mainstream of educational systems in both developed and developing countries. The globalization of distance learning provides many opportunities for countries for the realization of their education system-wide goals. The growing needs for continual skills upgrading and retraining and the technological advances have led to an explosion of interest in distance learning.

### **Advantages of Distance Learning**

There are many advantages of distance learning though it might not be the best choice for every student seeking to pursue a college degree or university program.

- i. **Study from anywhere, anytime:** One of the benefits of distance education is that one could learn from anywhere and at any time. The part of country one lives is not a barrier to join the course and start learning. Those courses offered by an international school could easily get access to course material if one is a citizen of a different country. According to (Nagrale, 2013) one could get all the knowledge and training anywhere one resides on the planet.
- ii. **Saving Significant amount of Money**: The amount of money spent on distance education degree (online or otherwise) may be much more affordable than the amount spent on a regular on-campus degree program. Students who are looking for economically viable options can go for a distance learning program. Students do not have to live in the same city or the same country to attend the learning institution of their choice. One could study wherever one has access to a computer and Internet connection. Moreover, the courses offered at distance learning centers are cheaper than the courses provided at traditional education centers (Brown, 2017).
- iii. **No Commuting:** Nagrale (2013) stated that if one is opting for a distance education, then one does not have to commute in crowded buses or local trains. A computer with an internet connection in one's home is needed. Entire college would be in one room and one does not need to go out. Commuting is the most difficult aspect of formal schooling because much time is wasted, money, and more importantly energy. No one likes commuting for long hours.
- iv. **Flexibility to Choose:** Learners will have to follow a set schedule of learning as per the curriculum of the school if they are following traditional ways of learning. But different types of distance learning allow learners to set their learning schedule as per convenience without following a regular schedule of learning. Even if the students are out of touch from learning process, distance learning program offers them flexibility to choose courses of learning (Brown, 2017)

- v. **Saving Time: Distance Education** saves time that should have been wasted in going to and from college, waiting for a bus or train. In a distance learning program, your classroom is right in your bedroom the study material on your desk or the ematerial on your computer. Bijeesh (2017). Students that do not have enough time on their hands can turn to distance education as an option and pursue it from the comfort of their homes.
- vi. **Offer of Increase Interaction with Students:** Distance learning can offer increased interactions with teachers and students. In particular, introverted students who are too shy to ask questions in class will often "open up" when provided an opportunity to interact via e-mail or other individualized means.
- vii. **Earn While Learning:** Those who want to improve their resume by getting higher education and without breaking their existing job then distance learning can be the best option for them. Learners can go on earning their livelihood along with improving their qualification as distance learning will accommodate both learning as well as earning (Brown, 2017).
- viii. **Access to Learning Opportunity:** Distance learning increases access to learning and training opportunity, provides increased opportunities for updating, retraining and personal enrichment, improves cost effectiveness of educational resources, supports the quality and variety of existing educational structures, enhances and consolidates capacity.

#### **Disadvantages of Distance Learning**

The following are the disadvantages of distance learning:

- i. **High Chances of Distraction:** There are no formal classrooms for face-to-face interaction and no classmates who can help with constant reminders about pending assignments, the chances of getting distracted and losing track of deadlines are high. One need to keep oneself motivated and focused if one wants to successfully complete distance learning course. Distance education is not a good idea if one tends to procrastinate and fails to meet deadlines Bijeesh (2017). Moreover, if one has any doubt then one has to clear oneself without taking help from teacher/lecturers or friends since one cannot talk to friends and other colleagues that one could do in a normal college course (Nagrale, 2013). It only requires one to be self-motivated and focused to be able to complete a course successfully (Brown, 2017).
- ii. **Complicated Technology:** Brown (2017) explained that any student seeking to enroll for a distance learning program needs to invest in a range of equipment including computer, webcam, and stable internet connection. There is absolutely no physical contact between students and instructors as instruction is delivered over

the internet. This overdependence on technology is a major drawback to distance learning. In case of any software or hardware malfunction, the class session will come to a standstill, something that can interrupt the learning process. Moreover, the complicated nature of the technology used in distance learning only limits online education to students who are computer and technology savvy.

- iii. **No Social Interaction:** Learners will often be studying alone and so may feel isolated and miss the social physical interaction that comes with attending a traditional classroom. Moreover, students do not have the chance to practice the lessons verbally. The lack of physical interaction in the education process may cause many problems, such as a great degree of flaming and isolation (Dyrud, 2000). Brown (2017) opined that learning in a brick-and-mortar institution presents students with the opportunity to meet and interact with people from different locations on a personal level. Distance learning only limits students to classes and learning materials that are based online. Though students can interact through chat rooms, discussion boards, emails and/or video conferencing software, the experience cannot be compared to that of a traditional campus. Hara and Kling's controversial study (2000) also found that the difficulty and stress experienced by students online might not be adequately understood. Working alone at night causes many complexities and depressing experiences.
- iv. **Difficulty Staying in Contact with Instructors:** learners that have problems with assignments, or questions about lectures while in a traditional class may have the opportunity to talk to the instructor before or after class or schedule meetings online at a different time. When learners are distance learning, however, they will experience difficulties getting in touch with their instructors. Even though the students can send an email, it is possible for them not to get immediate response they would gotten if they were able to sit with their instructor (Hutt, 2017).
- v. **Job Markets do not accept Online Degrees:** It could be quite dangerous if a student is totally relying on distance education for a degree. (Ngarel, 2013) One might get a degree but that might not be recognized by private companies in the job market and the same problem in government jobs. Employers prefer a degree from a regular college over online or distance education. The belief is that distance education is still not a serious form of education.
- vi. **It does not offer immediate feedback:** In a traditional classroom setting, a student's performance can be immediately assessed through questions and informal testing. With distance learning, a student has to wait for feedback until the instructor has reviewed his or her work and responded to it.

### **Training of Teachers for Distance Learning**

With schools now closed in almost all the countries of the world, Nigeria is not excluded and one of the ways to promote distance learning is to train teachers on the required skills that would make them proficient in distance learning. Some teachers in the primary, secondary and higher institutions find it difficult to operate smart phone which is one of the devices that would use for distance learning. There is need for teachers to be trained on how to use laptop, tablet, iphone for distance learning purpose and not only receiving calls. The training referred to in this aspect could be done by the government, education board at various level of education and the individual teachers on their own could train and equip themselves for distance learning. Online teaching is entirely different teaching situation, while trying to contain the spread of covid-19 and even beyond the pandemic there is need for teachers training on distance learning.

#### **Devices for Distance Learning**

- 1. Computer (Laptop or Desktop)
- 2. Digital tablet
- 3. Mobile phone
- 4. Portable media players

### **Requirements for Teachers and Students for Distance Learning**

- i. Both teachers and students can use any device that supports an internet browser (smart phone, tablets, computers, chrome books).
- ii. Both students and teachers require access to the internet either via wifi or mobile carrier network.
- iii. Both students and teachers do not have to install any application.
- iv. While teachers need to register for an account, students do not have to register with an account student can access class time immediately with any nickname.

#### **Skills Need of Teachers for Online Classroom Instruction**

Creating an efficient and effective digital classroom requires online teachers to develop exceptional communication skills. Teachers need all the skills required to develop lessons plans for traditional classroom instructions, and they must be able to apply them to digital teaching environments. Education delivery is evolving and as the evolution progresses, the overriding challenge for educators and administrators will be finding ways to embrace new technology and teaching environments in a responsible, practical and educationally sound manner (Share Team, 2020). Technological resources do not relieve online teachers of their responsibility to acquire advanced skills through professional development. The emerging

technology-dependent setting of distance learning would require that educators embrace new skills. The following skills are required by teachers for distance learning:

- Communication Skill: Distance learning environment requires clear, concise instruction. Educators experienced in face-to-face classroom instruction methods may need to develop stronger written communication skills. Skills for using graphics, videos and digital audio files for communication with students are essential.
- ii. **Technological Literacy:** Distance learning teachers would also have to develop skills and knowledge specific to web-based educational systems. According to (Share Team, 2020) Teachers should be able to demonstrate proficiency in six areas which include:
- 1. Full knowledge of accessibility requirements for technology in the classroom and online instruction.
- 2. Ability to evaluate internet resources.
- 3. Understanding aspects of copyright privileges and violations.
- 4. Modeling and monitoring proper etiquettes and generally accepted online use policies.
- 5. Designing and implementing appropriate lesson plans for online students.
- 6. Ability to troubleshoot minor technical issues and refer to technical issues and refer to technical support personnel when necessary.
- iii. **Time Management Skills:** Time management is more critical in distance learning environment than in a traditional classroom. Information on the internet changes frequently. Teachers must be able to evaluate information and update course materials as necessary to ensure students have timely, relevant information. Instructors' feedback should be provided to students as soon as possible. Assignments should be graded within one week of submission. Providing a rubric with appropriate feedback for assignments encourages students to review their work and ask questions about subject material as the course progresses. Students taking classes in distance learning do not always attend class during normal school hours. Scheduling conference time and office time during evenings and weekends is essential.
- iv. Assessment and Evaluation Skills: Online teachers must be able to evaluate students' performance accurately. Educators will "take roll" by monitoring access to the class, reviewing discussion posts and grading assignments. New methods for identifying learning difficulties and other factors that affect academic performance are necessary in a digital education environment.
- v. **Teaching students to apply the Concept:** Some students may experience difficulties retaining information learned through distance learning. An effective

online educator must have required skills to develop engaging course curriculum that motivates and encourages students to participate fully. Interactive components, timely, relevant supplementary readings and group activities reinforce retention. Teachers must develop skills to help students fully engage according to individual learning abilities.

### **Platforms Suitable for Distance Learning**

Several platforms have been introduced to the teaching and learning process of distance learning of which some are used by other countries in their education sector though Nigeria as a country is yet to adopt these platforms and the closure of formal schooling has caused the country to adopt such platforms that could keep teachers and students on track during the COVID -19 pandemic. These platforms include but not limited to; Class Dojo, Moodle and Google Classroom.

- i. Class Dojo: Is an educational technology communication application and website. It connects school teachers, students and families through communication features, such as a feed for photos and videos from the school day, and messaging that can be translated into more than 35 languages and has been used in 180 countries (Bharti 2014). It also enables teachers to note feedback on students' skills and creates a portfolio for students so that families can be aware of school activities outside of meeting with teachers. Class Dojo allows students, teachers and families to communicate. To use class dojo, teachers register for a free account and create "classes" with their students (Pierce & Seibel 2012). They can give students feedback for various skills in class. These are customized and teachers can change the skills to adapt to the needs of the class or of the school (Rubin 2013). Teachers have the option to post pictures and videos in their class story, or to their school story. They can also message with families, receiving "read receipt" to know when their message has been read (Bharti 2014). However, families can also access class Dojo when they are invited by their children's teachers, and receive updates on what is happening in school, view their whole class story and see a timeline of their own children's experience in the classroom through pictures and videos (Sawers, 2012).
- ii. **Moodle:** Community-driven and globally-supported open learning platform. It is used for blended learning, distance education, flipped classroom and other distance learning projects in schools, universities, workplace and other sectors (Costello, 2013). With customizable management features it is used to create private websites with online courses for educators and trainers to achieve learning goals (Gavin, 2013). Moodle allows for extending and tailoring learning environments using community-sourced plugins. Moodle as a learning platform can enhance existing learning environments (Adam, 2015). As an e-learning tool Moodle has a wide range of standard and

- innovative features such as a calendar and a grade book (Jordan, 2013). Moodle is a leading virtual learning environment and can be used in many types of environment such as education, training and development and in business settings.
- iii. Google Classroom: It is a free web service developed by Google for schools that aims at simplifying, creating, distributing and grading assignments. Google classroom integrates documents, sheets, slides, gmail and calendar into a cohesive platform to manage student and teacher communication. When using Google classroom students can be invited to join a class through a private code, or automatically imported from a school domain (Kerr, 2014). Teachers can create, distribute and mark assignments all within the Google ecosystem. Teachers can monitor the progress of each student by receiving revision history of a document, and after being graded, teachers can return work along with comments. Google classroom ties Google Drive, Google docs, sheets and slides, and Gmail together to help educational institutions go to paperless system (Kerr, 2014).

### Solution to COVID - 19 Pandemic through Distance Learning

In a bid to contain the spread of COVID-19 pandemic the following should be done:

- i. Opening more Distance Learning Centres: Most of the institutions of learning in Nigeria are operating the traditional method whereby the instructors and the students are seen in the classroom or lecture hall as the case maybe. Hence, Nigerian government and private institutions should ensure that more distance learning centres are created and the sustainability of such centre should be ensured.
- ii. There should be adequate Provision of Network: Provision of adequate network is necessary for the survival of distance learning centres. In Nigeria today, there could be issues whereby to make phone call poses challenge. As such, if Nigerian government through its agencies and higher institutions choose to embark on distance learning they should ensure that they have a strong network provider as this will ease the stress instructors and students could likely face in the course of study and while trying to interact with each other.
- iii. Provision of updated Learning Facilities/Technology: Federal government agencies and higher institution should provide learning facilities/technology that are up to date. In most Nigerian higher institutions especially, those owned by government there seems to lack adequate up to date facilities/technology. This makes it difficult for the traditional method of education to achieve some of their goals and purposes, thus introducing distance learning into the Nigerian education system would require adequate and up to date facilities/technology being put in place. Technology has accelerated from analog to digital as such lecturers and instructors should be trained on how to use these technologies.

- iv. Adhering to Safety Precautionary Measure by World Health Organization (WHO): Most people are in doors and do not engage in interstate movement hence, the adherence to precautionary measures by the World Health Organization (WHO) should be in strict compliance.
- v. Creating Awareness about Distance Learning by the Government: Relevant government agencies should create awareness on the importance of distance learning. This could be done through radio, television, social media, billboards among others.
- vi. Adoption of Platform for Distance Learning: Emerging technologies and platforms such as Edmodo, Google classroom, ClassDojo, among others should be adopted to enhance effective and smooth running of the programme.

#### Conclusion

The spread of COVID-19 has made government and individual especially those in the higher institutions see the need for creation of distance learning centres in Nigeria. The future opportunities for distance learning in Nigerian education system are unlimited. Clearly, distance education programs and courses are here to stay and will increase in the future. While distance learning can be at least as effective as conventional classroom learning under certain situations, it has not been claimed that distance learning can replace traditional classroom learning. Distance learning, implementing information technologies, especially through mobile learning, is considered as the present and the future of learning and an integral part of any kind of educational process in the future. Online courses provide more flexibility and the freedom of self-directed learning without compromising the students in anyway academically.

### **Suggestions**

Based on the points raised in this paper the following suggestions were made

- 1. Federal government through its agencies should ensure that distance learning centres are created which could make school activities active in the midst of covid-19 pandemic and beyond.
- 2. The Federal Government through its agencies should partner with a reliable network provider to avoid network fluctuation.
- 3. Governments/agencies should ensure the provision of up to date learning facilities/technology in the various distance learning centres to be created.
- 4. Students and teachers should adhere strictly to safety precautionary measures put in place by the World Health Organization (WHO).
- 5. Teachers/instructors should be trained on how to used various distance learning platforms through which teaching and learning could take place.

- 6. Teachers should be equipped with necessary skills that would make them proficient in using updated devices for distance learning.
- 7. Parents should provide a convenience avenue for their children and encourage them to enroll in distance learning.
- 8. Education planners should organize training/workshop for teachers at all level of education for them to be equipped with skills in distance learning.

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