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E- Learning Amongst Library Science Students, Case of Delta State University, Nigeria during COVID-19 Pandemic Lock down: Pros and Cons

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Abstract

The outbreak of COVID-19 pandemic around the globe has destabilized academic activities especially as lockdown of all human activities became the only immediate strategy of controlling the spread. Globally, the only palliative for continuing educational activities is the introduction of e-learning system which is new to most institutions of learning in Nigeria. Observation from Delta State University as a case study indicates that, majority of the students complain of the difficulty in applying the implemented e-learning system hence this study explored the e-learning application, its pros and cons under three objectives. The population of the study comprised 370 of library and information science. The entire population of 370 respondents was used as the sample size of the study and 230 responses were retrieved online. The questionnaire used in the study comprised twenty four (24) items. Data generated were analysed using simple percentage. The findings revealed that students participate in the e-learning system with the use of the device (phone and not laptop) in the form of text and audio. It was also found that difficulty in applying the implemented e-learning system arises as a result of high cost of data subscription, high cost of devices, technologies not user friendly and epileptic or power failure. Thus, it was recommended that institutions should subscribe for data and ensure that e-learning system is upgraded for user friendliness.

Keyword: E-learning, library, COVID-19 pandemic, library and information science students, Universities, lockdown

Introduction

The temporary shutdown in activities as a way to contain the spread of corona virus also known as COVID-19 has greatly affected the economy of various countries like Nigeria. Businesses are closed, jobs are suspended and schools are shut down thereby altering school's curriculum. According to Mahaye (2020) that, all educational institutions in South Africa has been shut down temporarily in order to contain the spread of the COVID-19 pandemic. This is applicable to every other part of the world to avoid the spread of the virus. Over the years, one major reason for discontinuity of educational activities in Nigeria was strike which is termed a stoppage of work that is organised by a body of workers to enforce their conformity with their demands on employer or a group of employers. Recently, the newly discovered virus has put a stop in the educational system globally. (Oyeniran et al., 2020). The question has been how learners would be able to make up for the period of lockdown since educational systems in the country are structured with definitive calendars. Li et al. (2020) stated that during the lockdown in Wuhan, which is the centre of the COVID-19 outbreak, cloud clubbing, home karaoke station, and online workout groups were some of the ways people were able to stay connected. In other words, with the view to continue with educational system, modern technologies/ new communication technologies now create room for learners outside the classroom environment to a new environment known as the e-learning environment which gives the opportunity to learn from different areas. Sanni (2019) define e-learning as a flexible learning which focuses on interaction among teachers, learners, and the online collaboration environment using ICT resources, tools and applications. In order to interact or to ensure collaborative interactions from different locations, institutions have decided to delve into various method of applying online learning. For instance, the blended learning (i.e the integration of the conventional face-to-face learning method with

digital or online learning method) which has been existing in some countries could have been a useful means to ensure learners access to learning activities but the face to face during the period of the national lockdown has disqualified it (Mahaye, 2020; Oyeniran et al., 2020). Some institutions in the attempt to create a study environment that is safe for them to build their own inner networks, others choose integrative approach and use already existing media open to the public and try moving the study process into the public space creating studying communities. Oyeniran, Oyeniyi and Oyeniran purported that students in the digital environment are really at advantage as they communicate with their course mates and lecturers which could help them achieve a higher level of understanding thereby also improving their online literacy skills. Despite the benefit accrued to the e- learning there could also be the problem of epileptic power supply or instability of electricity, poor network, data subscription and several other problems as regard e- learning in this covid -19 pandemic lockdown.

Statement of the Problems

The goals of education of any nation may be actualize when the educational system is moving smoothly without any alteration in the curriculum. The outbreak of this corona virus also known as COVID-19 virus has disrupted the educational system through the observation of social distancing, total lockdown of schools which may lead to a temporary or permanent break down of the educational system. In the same way, it may affect students as some may not want to return to school. In other to curb this, there is therefore the need to implement online or e-learning to keep the educational system and the students study curriculum up-to-date. Observation has shown that some of these e-learning/online learning system implemented are not welcome by most of the students as most of them complain of difficulty in downloading lecture notes, network problems,

and so many other problems associated with the participation of students on the e- learning system hence this study to find out the pros and cons of the e- learning in the covid-19 pandemic.

Case Study

Delta State University popularly known as DELSU is a State Government owned University situated in the Southern region of Nigeria. The University offers programmes from full time certificate, diploma, degree programmes, weekend programmes and postgraduate programmes across its three campuses (Abraka, Anwai in Asaba and Oleh) with the main campus located at Abraka. The main campus in Abraka is made up of three multiple sites known as site 1, site 2 and site 3 with the department of library and information science situated in site 3. The department of Library and Information Science has about three hundred and seventy students (100 to 400 levels) which are potential librarians.

In order to have a scholarly result on the pros and cons of e-learning amongst library and Information Science Students in Nigeria, the researcher decided to administer structured online questionnaire to the three hundred and seventy (370).

Objectives

The study is based on the following objectives

1. Students participation on e- learning system
2. The advantages of the e- learning system in this COVID -19 pandemic lockdown
3. The disadvantages of e- learning system in this COVID -19 pandemic lockdown

Review of Related Literature

The traditional methods of teaching where students and their instructors can see face to face, listen to lecture is what most students are accustomed with, while in the University. There has been a shift from the traditional era where teachers depend on some printed instructional materials to a technological era where classrooms are not only constituted of brick-and-mortar but rather integrated with virtual platforms (Mahaye, 2020). This ideology is not applicable to all institutions most especially in the developing areas in the world but the outbreak of this COVID - 19 pandemic has made so many institutions moved into the use of e-learning in order to keep the school curriculum, lecturers and students in the line of learning. In other words, introducing e-learning by so many academic institutions in this period of lockdown was to keep learners up-to-date thereby enabling learning independently, collaboratively and broaden the scope of the learner (Sanni, 2019). Salehi et al. (2014) define E- Learning as learning by an electronic means were learners advance their understanding using online learning tools in virtual learning environment. E-learning according to Ali et al. (2018) is the acquisition of knowledge through the use of technological devices such as mobile phone, laptop, computer, etc through e-mail, google scholars, you-tube etc as the platform for learning. In other words it is the use of technologies in order to add value to individual knowledge.

There are diverse classifications or types of e-learning. Algahtani (2011) categorised e-learning into two; the computer and the internet e-learning. The computer learning has to do with learning with hardware and software which can also be either of two ways: computer managed instruction and computer-assisted-learning. In the computer-managed instruction, computers are used to store and retrieve information to aid in the management of education. The computer

assisted- learning has to do with the provision of interactive software or learning tools to support the class or to learn outside the class dependently. (Arkoful and Abaidoo, 2014). Arkoful and Abaidoo further explained that the internet learning is an improved computer learning, which reveals contents on the internet, thereby linking related knowledge sources. An example is the e-mail services. The internet learning could either be mixed or blended more, assistant mode, and completely online mode. The mixed or blended mode combine traditional method, assistant mode supplements the traditional method while the completely online mode has to do with the exclusive use of the network for learning. The completely online mode could be synchronous or asynchronous. Synchronous type enables the learner to discuss with the teacher and also among themselves through the internet at the same time using tools like videoconference and chat rooms. Asynchronous allows the discussion of learners with the lecturer and also among themselves over the internet at different times. It is therefore not the interaction that occurs at the same time but later, using tools such as thread discussion and emails (Arkoful and Abaidoo 2014).

There are a lot of e-learning methods that has been introduced by institutions to ensure that knowledge is conveniently passed unto learners which apply diverse methods or frame work. There is a method or frame work which allows the institutional management to monitor the academic activities of the teachers and students within an institution. It is a system whereby lecturers will upload the courseware and lecture notes (text) to the e-learning zones, while the students will also access the e-learning zones to attend their various classes as scheduled by the lecturers or as directed by the school management or online environment designers. Thus, the e-learning zone serves as the meeting point or lecture room for the students and the lecturers alike. Also, the e-learning zone also allows the students to take and submit assignments; the lecturers can as well assess the students by the use of various technical functions embedded in the e-learning

zones. This framework uses computer and android applications and do not cost the lecturers and the students any additional monetary implication other than data subscription charges from their respective data network service providers but at minimal rate of charges. (Oyeniran, Oyeniya & Oyeniran 2020).

Similarly, Lebenicnik et al. (2015) stated that some of the e-learning environment may be in the form of video lectures, tutorials, online courses, slides, online text and documents, online forums, chat applications, video/audio conference, etc. Patil, (2014) in the same vein explained how recent technologies have allowed audio and /or video e-learning in classrooms using programs such as Skype, Adobe Connect, or webcams, to interact with students. Audio has been effective when combined with text, because it enables both the use of eyes and ears. Also, video could be combined with voice (audio) to aid learning (Teaching in pedagogical 2012). In a nutshell, all of these methods of e-learning, i.e text, audio, video etc could be combined together to aid proper learning in any institution of study using different types of tools. Harandi (2015) stated that the educational tools that could aid learning and be beneficial to the students, instructors, the institutions are web-based training, technology-enhanced learning, computer-based instruction, computer training, internet training, online education, virtual education, which could be applied or used by those who own computers, tablets or mobile devices (Patil, 2014). In essence, the adoption and implementation of e-learning in every institution have various advantages attached to it.

The advantages that are attached to adopting e-learning in education according to Arkoful and Abaidoo (2014) and Brooks (2019) are as following:

1. Time, place where lectures are delivered and received are at the discretion of the learner and the teacher. Students are able to fix their learning into their existing schedule. They

can attend their lectures from anywhere. In other words, the flexibility can enable them manage their work with education especially for those that are working and schooling

2. Easy access to information
3. It help to improve online learning skills and make learners more interested in learning
4. Provision of relationship opportunities for and between learners through discussion forums.
5. E-learning is cost ineffective: students do not need to travel before they can receive lectures. In other words, the cost of travelling is eliminated.
6. E-Learning enables students to study at their own convenience.

In the same way, Kumar (2015) opined that e-learning had amongst its benefit embedded in convenience, less expensive and technology. **Convenience** is related to the location of study, time, and course duration. In other words, there is no travelling or geographical location constraint nor is there pace at which the learner can study. Students can therefore go into self expression through writing or learning on their own. E- Learning is **less expensive** as there is no cost associated with traveling, housing and students can continue to learn together with their job. On the other hand, **technology** is related to working from anywhere where you have computer access to learning new technologies and practicing new software. Other benefits according to Kumar are equal participation from all classmates. It is beneficial to introverts as well as those who require more time in understanding the materials. There is synergy. i.e. there is a high level of changes in interaction between the lecturers and the students as well as among the students themselves. In as much as there are benefits attached to the use of e-learning, there are also some issues that could discourage the use of e-learning.

According to Khalid (2014), there are so many indications that online courses are not successful at meeting the learning need of students. That is, students are not satisfied with their online course experiences. This dissatisfaction according to Patil (2014) could be attributed to:

1. High cost of the equipments or devices used
2. Some of the technologies are not user friendly
3. Spending time in learning and using the technology

Arkoful and Abaidoo (2014) added that it is not all fields of study that will be able to apply the e-learning system in education. For example the scientific field that has to do with practical cannot study through the e-learning system. Furthermore, e-learning make students go into remoteness, thereby not interacting or relating with people.

Similarly, Kumar (2015) grouped the cons of e-learning into limited social interaction, technology cost and scheduling and problematic for instructors. **Limited Social Interaction** has to do with limited opportunities to interact face-to-face with teachers and other learners. It is also difficult in developing relationships with classmates as there is no personal attention between students and lecturers as regards to interacting face to face and getting feedback. In order words, there are limited local networking opportunities. **For technology cost**, students need to learn new ways of troubleshooting in the computer system. There is a high cost on the high-speed internet, cost of network service provider subscription, computer boot-up problem, the problem of software programs, and internet connection problem. E-learning is **problematic for instructors** because the traditional teachers who believe in lectures and handouts may find it difficult to adopt the system and software. This invariably indicates that the application of e- learning in higher institutions of learning if not checkmate with the problems associated with its usage especially with the students and instructors, may result failure in the aim of education. Therefore there is need

to address most of these problems identified for the e-learning to be absorbed by both learners and instructors.

Methodology

The researcher adopted the descriptive survey design to elicit information on the pros and cons of e-learning amongst Library and Information Science Students. The study was carried out using the population of three hundred (370) respondents who are library and information science students of 2019/2020 session of the Delta State University. The total enumeration technique was used for the study. Hence, the entire population of 370 respondents was used as the sample size of the study. From the 370 respondents, 230 responses were retrieved online and the reason could be that most of the students do not have Android phone to access the questionnaire. The questionnaire used for the study comprised of twenty four (24) items. The likert type scale was employed in this survey. Data generated from the online questionnaire were analysed using simple percentage and frequency count.

Results

Section A: Bio data

Gender of respondents

Table 1. Gender

	Freq	%
Male	73	31.7
Female	157	68.3

Table 1 reveals the gender of library and information science students. Majority of the students (157; 68.3%) are females while (73; 31.7%) are male. The finding indicates that majority of the respondents are female. In other words, there are more female students than male.

Marital Status of respondents

Table 2. Marital Status

	Freq	%
Married	6	2.6
Single	224	97.4

Table 2 shows the number of students that are married and those that are single. The study revealed that most of the students (224, 97.4%) are single while few numbers (6, 2.6%) are single. In other words, majority of the respondents are single indicating that few of the respondent are married.

Level of study of respondents

Table 3. Level of students

	Freq	%
Level		
Year 1	13	5.7
Year 11	100	43.5
Year 111	36	15.7
Year IV	81	35.2

Table 3 above shows that (13, 5.7%) are year 1 students, (100, 43.5%) are year 11 students, (36, 15.7%) are year 111 students while (81, 35.2%) are year 1V students. Majority of the respondents are year 11 and year 1V students.

Section B: Answers to Research Question

Table 4: Students participation on E-learning

S/N	Use of E-learning	SA		A		D		SD	
		Freq	%	Freq	%	Freq	%	Freq	%
1.	I participate in the E-learning system available in my school	40	17.4	139	60.4	34	14.8	17	7.4
2.	I can log onto the e-learning system dependently	42	18.3	128	55.7	41	17.8	19	8.3
3.	I am often involved in the e-learning at any lecture time without skipping any lecture time	26	11.3	81	35.2	84	36.5	39	17
4.	Participating in the e-learning class involves only text	34	10.4	90	39.1	86	37.4	24	10.4
5.	Participation in the e-learning class involves only audio	5	2.2	38	16.5	135	58.7	52	22.6
6.	Participation in the e-learning class involves only video	3	1.3	12	5.2	139	60.4	76	33
7.	Participation in the e-learning class involves only text and audio	21	9.1	103	44.8	72	31.3	34	14.8
8.	Participation in the e-learning class involves only text and video	3	1.3	34	14.8	139	60.4	54	23.5
9.	Participation in the e-learning class involves only video and audio	7	3	25	10.9	133	57.8	65	28.3
10.	Participation in the e-learning class involves text, audio and video together	38	16.5	85	37	58	25.2	49	21.3
11.	I use my mobile phone for the e-learning	83	36.1	130	56.5	11	4.8	6	2.6
12.	I use a laptop computer for the e-learning	21	9.1	44	19.1	113	49.1	52	22.6

Data in Table 4 reveals students participation on the e-learning system. It is shown in the table that majority of the respondents agreed they participate in the e-learning system available in their school (139, 60.4); they use mobile phone for the e-learning (130, 56.5); they can log onto the e-learning system dependently (128, 55.7); participation in e-learning involves only text and audio (103, 44.8); It was equally revealed in the table that some of the respondents disagreed that: they use laptop computer for e- learning (113, 49.1); participation in e-learning class involves only text and video (139, 60.4); Participation in e-learning involves only audio (135, 58.7); Participation in e-learning involves only video and audio (133, 57.8). It is therefore found that students dependently participate in e-learning using their mobile phone in the form of text and audio.

Table 5: Pros of E-learning system

S/N	The Pros of e-learning	S A		A		D		SD	
		Freq	%	Freq	%	Freq	%	Freq	%
13.	I can conveniently download the lecturers note on the e-learning site	34	14.8	104	45.2	65	28.3	27	11.7
14.	I can easily ask questions and receive answers to my questions	29	12.6	121	52.6	54	23.5	26	11.3
15.	The audio and video work effectively	17	7.4	85	37	94	40.9	34	14.8
16.	The e-learning is cost ineffective	66	28.7	88	38.3	46	20	30	13
17.	I think the lecturers application of the e-learning has help me improve my skills	24	10.4	107	46.5	62	27	37	16.1
18	E-learning make me more interested in learning	21	9.1	70	30.4	90	39.1	49	21.3

Table 5 shows the pros of e-learning system amongst library and information science students. It is revealed in the table that the respondents agreed that: they can easily ask questions and receive answers to my questions (121, 52.6); they think the lecturers application of the e-

learning has help them improve their skills (107, 46.5); they can conveniently download the lecturers note on the e-learning site (104, 45.2); The e-learning is cost effective (88, 38.3). Other responded disagreed that: the audio and video work effectively (94, 40.9); E-learning make them more interested in learning (90, 39.1);

Table 6: Cons of E-learning system

S/N	The Cons of e-learning	SA		A		D		SD	
		Freq	%	Freq	%	Freq	%	Freq	%
19	High cost of devices	66	28.7	129	56.1	23	10	12	5.2
20	Technologies are not user friendly	37	16.1	89	38.7	87	37.8	17	7.4
21	E- learning application is time consuming	38	16.5	81	35.2	88	38.3	23	10
22	High cost of subscription	136	59.1	77	32.5	7	3	10	4.3
23	There are problems of computer boot-up, connectivity, software programs	98	42.6	98	42.6	21	9.1	13	5.7
24	My device is always down due to epileptic or power failure	136	59.1	75	32.6	9	3.9	10	4.3

Table 6 provides information on the cons of e-learning system amongst library and information science students. It is revealed in the table that high cost of subscription, epileptic or power failure leading to running down of their device (136, 59.1) respectively, high cost of devices, (129, 56.1); computer boot-up, connectivity and software programs (98, 42.6), technologies are not user friendly, (89, 38.7) are the major cons on e-learning application. Others respondents disagreed that e- learning application is time consuming (88, 38.3).

Discussion of Results

The responses from the students on their bio data indicate that majority of the students in library and information science who responded to the online questionnaire are female. This is an indication that although the total numbers of females in the various levels were almost equivalent to the males, the female folks are interested in the online application for learning. It was also revealed from the results that majority of the students who responded to the questionnaire are unmarried. Results on the level of students who responded to the questionnaire shows that year 11 and year 1V students are the major respondents to the questionnaire while year1 and year111 students had the lowest result. This may be attributed to lack of learning device by the year1 and year111 students or they do not possess the skill on the use of technology and as such they are not effective in e-learning. In essence the year11 and year1V students are more effective in the application of e-learning. This also reflects that only some set of students and privileged students that can apply the technology for learning.

Responding to the research questions on students participation on e-learning, the findings on **Table 4** revealed that majority of the students agreed they participate in the e-learning system available in the school dependently using their mobile phone for learning in the form of text and audio though some of them skip the lecture time table. In other words, majority of the students participate in e-learning using their mobile phone to log on to the site through text and audio. This findings is in agreement with Oyeniran et al. (2020) and Lebenicnik et al. (2015) reports which indicates that learners use computer and mobile phone for e-learning in the form of video lectures, tutorials, online courses, slides, online text and documents, chat applications, video/audio conference, etc.

The findings as shown in Table 5 on the pros of e-learning revealed that majority of the respondents agreed that: they can easily ask questions and receive answers to their questions,

lecturers application of the e-learning has help them improve their skills, and they can conveniently download the lecturers note on the e-learning site. Some others responded that there high cost in applying e-learning technology, audio and video do not work effectively and e-learning do not make them interested in learning. This finding corroborates the previous reports of Arkoful and Abaidoo (2014) and Brooks (2019) that: e-learning improve skills of learning, and there is easy accessibility to information, provision of opportunities for relationships between learners and cost effectiveness on e-learning.

The study on Table 6 also revealed that high cost of subscription and high cost of devices; computer boot-up, internet connectivity, software programs; technologies not user friendly, epileptic or power failure leading to running down of their device are the major cons on e-learning application. This finding is in agreement with Patil (2014) that some of the problems with the application of e-learning are high cost of the equipments or devices used, some of the technologies are not user friendly, users spend time in learning and using the technology. Similarly, Kumar (2015) stated that the cost of high-speed internet and subscription, internet connectivity, computer boot-up, software programs, are the problems faced by e-learners.

Conclusion and Recommendations

Prior to the outbreak of the covid-19 pandemic which led to the lockdown of various activities including education, academic work in most institutions of learning, teaching has been through the traditional approach (i.e face to face with instructors or class room learning) or the blended learning which has to do with the combination of face to face learning (classroom learning) together with online learning. Except for the developed countries or the open Universities in the developing countries where there is e- learning. In order to keep the educational system alive

and up-to-date, most institutions of learning have advanced by applying e-learning which is now a forum where learners meet with their lectures. The implementation of e-learning system has been helpful and to an extent also has its disadvantages as a new idea of learning in this pandemic period. Thus, apart from this COVID 19 pandemic period, there is need for e-learning system to be implemented in higher institutions of learning and also be upgraded to be user friendly for effective learning amongst the students and lecturers. Acquiring laptop should be compulsory for students who are in the higher institution of learning and those seeking for admission into the higher institution of learning. The school can subsidize for laptop at a lower cost for each student admitted into the school to ensure that e-learning is not restricted to the time of lockdown alone but it should be done together with the usual classroom learning (blended learning) which will help in developing the skills of both students and lecturers. The e-learning interface developers and/or designers are encouraged to improve such design in such a way that it is data consuming friendly or low in consumption of data. This will enable students spend less in terms of network service providers subscription.

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Conflict of Interest

Non was declared

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