

## **Perceived Students' Needs and Adjustments towards Online Learning in Post Covid -19 Pandemic in Anambra State**

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### **Abstract**

This paper investigated the perceived students' needs and adjustments as it affects online learning in the post Covid-19 pandemic in public universities in Anambra State. Three research questions were raised while three hypotheses were formulated and tested. Descriptive survey research design was employed. The population of the study comprised 10,857 final year students which was made up of 5,019 males and 5,838 females. The sample size comprised 869 final year students from the selected public universities. Structured questionnaire was the instrument used for the data collection. The instrument was validated by two experts, one in measurement and evaluation and the other in Computer Science. The reliability of questionnaire was established using Cronbach Alpha statistic with internal consistency index of 0.82. The collected data were analyzed using mean and standard deviation for the research questions while t test of independence was used in testing the hypotheses at 0.05 level of significance. The study revealed that majority of the students have adjusted with online learning with a high level of readiness. Furthermore, the findings revealed that students indicated high level of ICT skills and competencies needed for online learning. The study revealed that fear of high cost of data, poor internet services, erratic power supply, inaccessibility to online library resources and limited access to computer were the major perceived challenges to effective online learning. Based on this findings, it was recommended that Nigerian universities must as a matter of necessity, improvise means through which knowledge delivery and general learning activities can be achieved seamlessly and at the lowest cost to the students even while they are at home.

**Keywords:** Students needs and adjustments, online learning, post covid-19 pandemic, teaching methods, Nigeria

### **Introduction**

Teaching, learning, and course offerings appear to have been changed by technology. Method of education has gone beyond having classes on physical campuses in traditional classrooms with instructor - centred approach. This does not in any way mean that teaching learners in physical

classes will no longer be in vogue in education from now onwards. Online learning method of imparting knowledge presents numerous opportunities to both learners and instructors in offering of courses through distance learning and/or blended learning using any of its varieties. Needs and constraints of each learner help to determine the learner's best education choice. People's perception of life in general and education in particular have been influenced by Information Technology (IT) and Internet (Akanwa, Agbaegbu & Ihechu, 2017). Online learning involves delivery of educational instruction via internet medium to learners through technology-mediated platforms. This may include computers and other mobile devices. Online method of learning had witnessed adoption and high growth in some countries before the unfortunate world-wide economic stagnation brought about by COVID -19. It provided more service options in the portfolio of knowledge acquisition thereby enabling learners to have choices. Through online facilities, learners are exposed to various applications that facilitate better understanding of different topics in various subjects. Video conferencing tools are increasingly becoming veritable means of having online synchronous classes, seminars, or events anywhere in the world.

The entire world was so overwhelmed by the unprecedented emergence of COVID-19 that World Health Organization (WHO) issued so many health advisories aimed at containing the spread of the dangerous virus (Li & Lalani, 2020). The educational sector was not in any way spared as many countries closed down places of learning in quick response to check the ravaging effect of the virus. Unplanned closure of institutions of learning all over the world came with its negative consequences on the students and the entire society. The development resulted in some institutions that had necessary facilities to deliver academic activities through online methods. Dhawan (2020) argues that urgent migration from normal classroom teaching method to online learning system as a means to overcome limitations associated with the health emergency by institutions with the required capacities became the order of the day. Before the emergence of COVID-19, it was not a common practice for institutions to employ online methods in knowledge transmission (Basilaia & Kvavadze, 2020). However, a new method of imparting knowledge has become a necessity with the emergence of COVID-19. Some countries quickly evolved new cultures of teaching learners in universities to ensure they overcome limitations of COVID-19 outbreak (Dhawan, 2020).

Unpreparedness of some educational institutions and digital infrastructural deficiencies prevalent in Nigeria nearly made the resolve to continue education through alternative methods unfeasible during the period of COVID-19 pandemic. Outbreak of the virus ultimately laid the foundation for acceptance of the increasing importance of alternative learning methods especially in a contemporary and changing society like ours.

COVID-19 pandemic necessitated a surge in online learning strategies (Li & Lalani, 2020). To mention but one, Zoom recorded more than 370,000 users by the middle of 2020, representing a stunning and consistent annual growth rate of 458% (Kaplan & Haenlein, 2020). There is a compelling need now, more than ever before, for people and organizations to integrate the precautionary measures for the control of spread of COVID-19 in their study and work circles (Nah & Siau, 2020). In reality, COVID-19 era has exposed so clearly the shortcomings inherent in the age-long system of teaching – many of the new operators appear to be green horns in the field. Many of them were not prepared for the alternative methods of teaching and some do not have assured internet access to work from home. Unarguably, that pandemic era presented an enviable golden opportunity for unlimited learners' exposure to online education.

One major thing that happened was that COVID-19 resulted in shutting down public places in almost every country in the universe. Specifically speaking, millions of children were dislodged from classrooms worldwide as a result of COVID-19. One of the government agencies on May 8, 2020, declared that 1454 tertiary institutions in China utilized online education processes and over a million teachers offered virtual courses in excess of one million due to the COVID-19. In a related development, reports also had it that many post-baccalaureate institutions in United States of America and publicly supported primary and secondary schools changed their physical courses to virtual in the third month of 2020. It was further reported that many of these schools even continued to teach their students online learning till the end of 2020 semester. Alternative to traditional education was universally adjudged to be an excellent way of imparting knowledge in the COVID-19 era. Notwithstanding the fact that online learning is preferred by many especially when physical contact is impaired, traditional education may be effectively utilized as an adjunct

to classroom-based education. COVID-19 pandemic convincingly revealed the inherent weaknesses in educational institutions across the world and that is why many countries of the world now believe it should no longer be limited by time and place with adequate assistance of evolving technology (Doucet, Netolicky, Timmers & Tuscano, 2020). The pandemic period incontrovertibly presented a rare window to enhance education methods in flexible environments so as to advance education to the expected standards in line with the 21<sup>st</sup> century skills (Ihechu & Jacinta, 2017). It is important to note that keying into a global practice in education, is a very crucial to ensure that Nigeria is not left out in the global march towards improving on digital infrastructure, up-scaling skills of staff and expanding digital capabilities.

In Nigeria, many operational actors are still sceptical about embracing online learning due to numerous obstacles. Notable among the obstacles include but are not limited to primordial tendencies, knowledge incapacitation, poverty and a host of others. While some institutions are benefiting from the perspective of online strategies, a good number is still grappling with indecision (Akanwa, Agbaegbu & Ihechu, 2017). In today's technological world, digital readiness points to a nation's preparedness to harness advantages of ICT for the comfort and convenience of humanity.

In a related development, the associated social distancing status practised during COVID -19 pandemic underscored the overriding necessity for online learning which was hitherto neglected in most educational institutions for many hidden reasons. The COVID-19 pandemic unintentionally brought to the front burner the unfortunate state of decay of infrastructure in Nigeria's educational system and underlined the need for improvement.

There is therefore, the need for educational institutions to rise above the present challenges and explore into the yet unsaturated horizon of teaching and learning activities (Murgatrottd, 2020).

A major characteristic of the non-physical education method is movement of emphasis from teacher-centred to student-centred approach irrespective of whether it is the synchronous interactive setting or the asynchronous method (Kaplan, & Haenlein, 2016). Each method has

special features that tend to appeal to the users. However, no particular method is superior to the other. The actual underlying reasons for choice from the two depends on the intentions of the user at any point in time.

Most times, good and reliable internet facilities are seen as critical enablers to online learning. These are indispensable factors in any online environment. Unfortunately, acquisition of the necessary facilities appear not to be easily affordable. In contrast to what obtains in developed economies, learning is still in the primordial traditional form in many developing countries, thereby underlining the fact that adaptation to no contact education approach requires conscious efforts by both learners and teachers (Siemens, 2013). This may sometimes go with orientation with the new system to be able to flow smoothly. This helps both learners and teachers to become familiar on how to safely navigate in online learning environments. As a result of the expected collaboration, it is always necessary to enlist management support for a successful transition to online environment. For a meaningful and an enduring support, both teachers and learners must be prepared to go through series of skill-impacting training to justify management support. In addition, the online participants are expected to comply with new ethics in an online environment. Flowing from the above narrative, the mind set of learners concerning operations in the online learning environment will gradually change for better in all situations where physical contact may be impossible or prohibited such as during lockdown (Palden, 2020).

Investigation of students' knowledge of learning through computers during the COVID-19 period in Poland by Eschenbrenner, Nah and Siau (2020) showed that majority of the participants in the study were not exposed to any type of learning without contact prior to emergence of the virus. This was why the students had problems related operation of computers as a major challenge. Many reasons may have contributed to the result. In another study, Erickson and Siau (2020) examined undergraduate students' acceptance of no contact method of training during COVID-19 crisis in India. It was shown that the students' acceptance of no contact method of training was favourable. Specifically, lack of face-to-face interactions, socialization, distraction by social media, lack of technology know-how were also pin-pointed. E-learning perception of students at

Liaquat College of medicine and dentistry during COVID was carried out by Abbasi, Ayoob, Malik and Memon (2020). Negative understanding on the part of the students was discovered. The conclusion of the study was that e-learning should be embraced even in the post COVID- 19 era as a means of ensuring continuity of learning in troublesome periods.

Siau (2018) discovered that students' readiness to accept innovative way of delivering lectures especially in situations where physical contact is restricted is a step in the right direction. Adjustment to necessary technological innovations was seen as sine qua non as prepared learners' ability in utilization of digital skills in self-guided learning. Study on preparedness of learners for education without contact in Malaysia was done by Chung, Subramaniam and Dass (2020) the result showed some were only ready to participate moderately in online studies due to inability to control learners, lack of self-guidance during learning and absence of online communication efficacy.

Sheng, Siau and Nah (2010) noted that challenges universities faced during COVID-19 era as it affects alternative ways of imparting knowledge differed widely. It was noted many students and their trainers were unprepared teach meaningfully online learning before the advent of COVID-19 pandemic. It was also discovered that most learners did neither have their own laptops nor enough money to for loading data.

Problems encountered in South Africa by rural learners in relation to Covid-19 were examined by Dube (2020). It was gathered that internet connection was generally poor, many lack computer skills, early closure of internet centres, high cost of data, among others were the problems. It could be deduced from above that learners' problems are multi-dimensional. The variations in students' needs could stem from their various levels of exposure to computer and knowledge.

COVID-19 came with so many challenges. It ravaged all aspects of human existence which necessitated the need for positive adjustments. The need to adhere to social distancing as a measure to curb the pandemic made it impossible to continue with the old physical method of learning.

Online education apparently surfaced as one of the ways to engage education in the post COVID-19 pandemic. When it got to a point, Federal Ministry of Education, insisted that universities to resume their abandoned academic activities following outbreak of COVID-19 via other ways (Chung, G. Subramaniam & Dass, 2020). That directive was greeted with a lot of contrasting opinions from the general public and members of the academia. Many people described the challenges from COVID-19 pandemic as avoidable and attributed it years of colossal neglect on the education sector and lack of foresightedness on the part of our leaders. Based on the foregoing, the study captures what are the students' needs and adjustments towards online learning in post COVID-19 era in Anambra State as its problem.

### ***Research Questions***

These research questions were used:

1. How adjusted are students' towards using online learning platform?
2. What skills do students need for using online learning platform?
3. What are the perceived challenges that could hinder students from participating effectively in online learning platforms in post Covid-19 pandemic?

### **Method**

A descriptive survey research design was adopted. Population of this study was 10,857 final year students which was made up of 5,019 males and 5,838 females from the Faculty of Education, Chukwuemeka Odumegwu Ojukwu University, Anambra State. Sample size comprised 869 final year students from the selected public university. Purposive and cluster sampling techniques were used in sample selection. Data were collected with a properly structured questionnaire. Two experts in the areas of Measurement and Evaluation; and Computer Science validated the instrument. Questionnaire's reliability was established using Cronbach Alpha statistic with internal consistency index of 0.82. Descriptive statistics such as mean and standard deviation were used to answer the research questions at 0.05 level of significance.

## Results

### Research Question One

How adjusted are students' towards using online learning platform?

**Table 1**

*Mean Rating on Adjustment of Students' in using Online Learning Platform*

S/N	Item statements	$\bar{x}$	SD	Remark
1	Online learning platform is interesting and interactive	3.34	0.83	VHL
2.	I like online learning platform because I understand lectures during online learning,	3.65	0.91	VHL
3.	Online learning platform has made me to acquire computer skills	2.32	0.52	LE
4	I have the needed devices to participate in online learning platform	3.32	0.82	VHL
5	Willingness to adopt online learning platform	2.98	0.73	HL
<b>Average Mean</b>		<b>3.12</b>	<b>0.76</b>	<b>VHL</b>

Where  $\bar{X}$  =Mean SD = Standard deviation, VHL = Very High Level, HL= High Level, LL = Low Level, VLL = Very Low Level

Table 1 showed that the average mean of final year students response on how adjusted are students' towards using online learning platform is 3.12 which revealed that there is high level of readiness towards using online learning platform.

### Research Question Two

What skills do students need for using online learning platform?



**Table 2**

*Mean rating on the skills students need for using online learning platform*

S/N	Item statements	$\bar{x}$	SD	Remark
6.	computer skills	3.22	0.79	HN
7.	Learners control skills,	2.21	0.49	NN
8.	online communication efficacy skills	3.15	0.77	HN
9.	Ability to participate in self-directed learning	2.13	0.46	NN
10.	ICTs skills	3.32	0.82	HN
11.	Confidence in using technological tools	3.43	0.85	HN
	<b>Average mean</b>	<b>2.91</b>	<b>0.70</b>	HN

Where  $\bar{X}$  =Mean SD = Standard deviation, HN = Highly Needed, NN= Not Needed

Table 2 showed that the average mean responses of final year students on the skills students need for using online learning platform is 2.91. This indicated that a good number of the students showed appreciable degree of ICT skills applicable in online learning.

### Research Question Three

What are the perceived challenges that could hinder students from participating effectively in online learning platforms in post Covid-19 pandemic?

**Table 3**

*Mean Rating on possible obstacles that could hinder students from effective participation in online learning platforms in post Covid-19 period*

S/N	Item statement	$\bar{x}$	SD	Remark
12.	High cost of data	3.43	0.85	Agreed
13.	Poor internet services	3.34	0.83	Agreed
14.	Erratic power supply	3.22	0.79	Agreed

15.	Inaccessibility to online library resources	3.12	0.77	Agreed
16.	Limited access to computer	3.08	0.75	Agreed
17.	Distraction by social media	3.21	0.79	Agreed
18.	Lack of computer skills	3.04	0.74	Agreed
	<b>Average mean</b>	<b>3.21</b>	<b>0.79</b>	Agreed

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**Where X =Mean; SD = Standard deviation**

Table 3 showed that the average mean responses of final year students on the possible obstacles that could hinder students from participating effectively in online learning platforms in post Covid-19 pandemic is 3.21. It indicated that high cost of data, poor internet services, erratic power supply, inaccessibility to online library resources and limited access to computer were the possible obstacles to effective online learning in post Covid-19 pandemic

### **Discussion**

Outcome of data analysis in research question 1 showed that the average mean of undergraduates response on how adjusted are students' towards using online learning platform is 3.12 which revealed that there is high level of preparedness in using online learning platform, as shown in item 1, 2 ,3, 4 and 5. The finding is in consonance with that of Chung, Subramaniam and Dass (2020) which revealed that preparedness of students to participate in online learning is mainly moderated by the following factors; some of them were not ready for online learning due to lack of learners' control, lack of self-guided learning and lack of online communication efficacy.

Results of data analysis in research question 2 showed that that a good number of the students have high level of ICT skills needed for online learning. This finding is similar with the outcome of the study from Sheng, Siau and Nah (2010) which established that online learning preparedness is institution- dependent. Further exposition was that a training gap exists among learners and instructors on how to effectively engage in online studies. A good number of possible users of online facilities neither have their own laptops nor enough resources for procurement of data.

Results of data analysis in research question 3 showed that that high cost of data, poor internet services, inefficient power supply, inadequate access to virtual library resources and restricted access to computer were the identified obstacles to effective online learning in post Covid-19 period. The finding is in line with that of Dube (2020) which listed obstacles to online education to include internet connection which respondents claim are very expensive or, in some cases, very limited. Other challenges mentioned are unavailability of network, shortage of devices for online learning, closure of internet cafés, lack of computer skills, and expensive internet data.

### **Conclusion and Recommendations**

The study investigated the perceived students' needs and adjustments towards online learning in Anambra State in the post COVID-19 pandemic era. Based on the findings, it was concluded that there is high level of preparedness in using virtual platform. Finally, it was concluded that high cost of data, poor internet services, erratic power supply, inaccessibility to online library resources and limited access to computer were among the obstacles to effective virtual learning in post COVID-19 era.

Based on this findings, the study recommended that,

1. Nigerian universities, must as a matter of necessity, improvise means through which knowledge delivery and general learning activities can be achieved seamlessly and at the lowest cost to the students even while they are at home.
2. Acquisition of ICT gadgets should be made compulsory for newly admitted students in all the high institutions of higher learning. This will help re-tune them to the use of necessary online learning gadgets.

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