

Assessing Continuing Education Programme Students' Perception, Attitude, Readiness and Willingness to Adopt e-Learning in a Public University in Anambra State

Elizabeth Ifeoma Anierobi¹ | Victor Ugochukwu Ezeonwumelu¹ | Christopher Obinna Alaribe¹ | Anthony Ahuruezenma Apiti² | Uchenna Vivian Amobi³

¹Department of Educational Foundations, Nnamdi Azikiwe University, Awka

²Department of Adult and Continuing Education, Nnamdi Azikiwe University, Awka

³Science Education Department, Nnamdi Azikiwe University, Awka

*Corresponding author

Received 25-02-2024

Revised 27-02-2024

Accepted 16-03-2024

Published 18-03-2024



Copyright : © 2024 The Authors. Published by Publisher. This is an open access article under the CC BY-NC-ND license (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).

Abstract:

Global practices promote the adoption of e-learning for schools in this contemporary time. This study assessed CEP students' perception, attitude, readiness, and willingness to adopt e-learning in Nnamdi Azikiwe University, Awka. The study adopted a descriptive research design and was guided by four research questions. The population of the study comprised all CEP students in the Faculty of Education from which a sample size of 345 was drawn through a convenient sampling technique. An adapted instrument with four clusters titled E-Learning Perception, Attitude, Readiness and Willingness Questionnaire was used for eliciting responses from the respondents and validated by three experts in the Department of Educational Foundations, Nnamdi Azikiwe University, Awka. The Cronbach Alpha method was adopted in determining the reliability of the instrument and it yielded alpha coefficients of 0.71. Data collected were analyzed using descriptive statistics of percentages, mean and standard deviation for answering research questions. Findings indicated that CEP students in the Faculty of Education have a positive perception and attitude towards adopting e-learning. It further revealed that the students are willing to adopt e-learning. Finally, the study showed that the students are not yet entirely ready to adopt e-learning due to challenges associated with the lack of access to uninterrupted power supply and ICT facilities. Based on the findings of the study, it was recommended among others that school management should ensure the provision of constant power supply, and internet access to students among others.

Keywords: Continuing Education Programme students, perception, attitude, readiness, willingness, e-learning

Introduction:

Education is a veritable tool for national and human development. No matter the occupation, vocation, profession, or skill anyone goes into, there is a need for the individual to be educated either formally or informally. Education allows every individual to

learn and acquire knowledge with measurable outcomes in the learner's cognitive, affective, and behavioural domains for wholesome development (Anierobi, Nwogbo, Ogbe and Oyeyemi, 2022). Learning is a continuous process and an integral

part of human life. This is to say that once an individual stops learning, he or she starts dying. Formal education is provided at the basic, secondary, and tertiary levels of education with each building upon the other in the ascending echelon. The tertiary level of education progresses from the undergraduate to the postgraduate levels. The undergraduate level, however, is programmed into regular, sandwich and continuing education programmes (CEP). Majorly, the regular programme is sponsored by the Government and graced by fresh graduates from secondary schools; the sandwich is mostly enrolled by teachers who seek to upgrade their certification; while the CEP is university-based to accommodate people who are gainfully employed but without a degree certificate.

Continuing Education Programme is, therefore, a part-time programme of the university meant to address the educational needs of adults who desire to advance their education which they never had the opportunity to acquire immediately after their secondary education. It is also a fact that some of the adults who enrol for CEP get interested in furthering their education at an older age when the chances of attending public secondary schools is slim. For this reason, this category of people enrolls for private evening classes from where they sit and obtain their O'level certificate, qualifying them for enrolment into the CEP. At Nnamdi Azikiwe University, CEP is a weekend programme which runs from noon on Fridays to 6 pm on Saturdays. Interestingly, CEP in Unizik shares a similar curriculum to the regular programme and is taught by the same lecturers with a difference only in the duration of both programmes. Since CEP shares a similar curriculum with the regular programme in Unizik, a lot of young secondary school leavers enrol on CEP alongside other adults. Moreso, because CEP does not require a JAMB score for enrolment, many young secondary school leavers fall back to it when they are beaten by JAMB. Teaching CEP students in Unizik is faced with the challenge of either scampering for limited classroom spaces available or meeting few students in the class for lectures since most of the students are gainfully employed. These challenges, no doubt, could contribute to poor academic engagement and performance by many of the students. A student who constantly misses lectures only to surface during examinations would not possibly perform maximally without cutting corners. Cutting corners is inimical to the vision

and mission cum Project200 of the present administration of Nnamdi Azikiwe University. To surmount these challenges and attract more candidates from far and wide into the programme, the university management resolved the adoption of e-learning for CEP.

E-learning involves the use of information communication technology (ICT) or other online gadgets to advance teaching and learning (Baczek et. al, 2020). Anierobi and Okeke (2020) construed that electronic or online learning involves all teaching and learning practices done electronically or online through various media handles or platforms. E-learning requires the deployment of ICT to grant students access to online learning and teaching resources. This implies that learning activities are done virtually without physical contact between the teachers and the learners. This type of learning can be done or received at anywhere adjudged conducive by both the teacher and the learners such as in the comfort of the home, the shop, the church or even at the school premises without the teacher and the students coming together as obtained in the conventional class. As such, online learning can only be effective where there is an adequate support system (Olayemi, Adamu & Olayemi, 2021). Olayemi, Adamu and Olayemi further explained that such support could be sustainable if both students and facilitators have hitch-free access to electronic devices and the Internet as well as the requisite skills to navigate the platform. Fundamentally, e-learning cannot be done except via the use of technologies.

Some of the technologies for e-learning include Zoom, Google Team, WhatsApp, Office 365, Webex, Google Meet, and Webinar (Doric, Blagojevic, Papic & Stankovic, 2020). The major aim of the use of e-learning is to provide students with a flexible and interactive learning environment which could be a prototype of a conventional classroom environment. By implication, students can participate in CEP lectures and examinations from anywhere around the globe. Students can also enjoy the opportunity to revisit learning materials uploaded by the lecturers from time to time which could foster mastery learning. Widodo, Wibowo and Wagirian (2020) identified six key dimensions of e-learning system benefits as connectivity, flexibility, interactivity, collaboration and motivation. Despite these wonderful advantages of e-learning, it is still bedevilled with lots of challenges in tertiary

institutions in Nigeria (Ezenwafor and Ementa, 2016).

The challenges confronting e-learning in Nigeria include a lack of computer literacy skills, lack of internet skills, ignorance of ways of utilizing e-learning for receiving lectures, lack of interest in learning new skills, lack of training on the use of e-learning tools, lack of confidence for utilizing e-learning, inability to understand contents delivered online (Eiriemiokhale & Idiedo, 2020). Scholars further fingered ignorance of the benefits of e-learning, inability to procure a computer, lack of skills to take online continuous assessments, inability to procure smartphones, inability to subscribe to data, and constant power failure as contributing to constraints to e-learning in Nigeria (Adeoye, Adanikin & Adanikin, 2020; Eiriemiokhale and Idiedo). Mahdy (2020) observed that a striking challenge hindering students' readiness for online teaching and learning includes the less interactive nature of some e-learning platforms because of the lack of physical contact with the teacher. In view of the diverse constraints to e-learning in tertiary institutions in Nigeria, the researchers have the curiosity to ascertain the perception, attitude, readiness, and willingness of CEP students towards the adoption of e-learning for their study at Nnamdi Azikiwe University.

Previous studies are not consistent with findings on the perception, attitude, and readiness of tertiary institution students towards e-learning. In a study on the readiness of students towards online learning in Nigeria during the COVID-19 pandemic, Olayemi, Adamu and Olayemi (2021) showed a high level of readiness for e-learning among the students. Olayemi et al found that the students possessed a high level of ICT skills and competencies needed for online learning but however, exhibited fear over the high cost of data, erratic power supply, poor internet services, inaccessibility to online library resources and limited access to a computer as the significant perceived challenges to effective online learning. In their study, Shetty, Shilpa, Dey and Kavya (2020) surveyed the attitude of undergraduate students towards online learning during the Covid-19 crisis in India. The result shows that the students have positive attitudes and perceptions towards online learning for sustaining their academic interests and development during the pandemic. On the other hand, Abbasi, Ayoob, Malik and Memon (2020) surveyed the perceptions of students

towards e-learning during the lockdown at Liaquat College of Medicine and Dentistry. The result indicated that most of the students have negative perceptions towards e-learning while Ihechukwu and Chima (2016) revealed that students have positive perceptions towards the use of e-learning in science education.

In a study carried out in Nigeria using tertiary institution students in Kwara State, Eiriemiokhale and Idiedo (2020) showed that the students' perceptions and attitudes towards e-learning are positive. Similarly, Akpan and Tralagba (2019) observed that students showed a willingness to procure their own mobile technology devices in readiness for e-learning. In their study, Chung, Subramaniam and Dass (2020) surveyed students' readiness for online learning and revealed that the readiness of students to participate in online learning is slightly moderate, noting that many of the students were not ready due to challenges facing the use of e-learning.

This Present Study:

Scholars have studied students' perception, attitude, and readiness for e-learning, especially during the period of COVID-19, this study looked at those variables and in addition to them, also looked at students' willingness to adopt e-learning. Moreover, there is a paucity of research on the variables using CEP students. Virtually all the studies were made with regular students both within and outside Nigeria. This gap in literature prompted this study. The study's findings, no doubt, would be of interest to the university management and the CEP directorate, Nnamdi Azikiwe University on the perception, attitude, readiness, and willingness of the students enrolled on its part-time programme towards the adoption of e-learning. The knowledge will guide policymaking for the CEP students who should be the recipients of e-learning. This is because students' perception, attitude, readiness, and willingness are key to the success of e-learning if adopted.

To give direction to the study, four research questions were raised. They are:

1. What is the perception of CEP students on adopting e-learning at Nnamdi Azikiwe University?
2. What is the attitude of CEP students toward adopting e-learning at Nnamdi Azikiwe University?

3. How ready are CEP students to adopt e-learning at Nnamdi Azikiwe University?
4. To what extent are CEP students willing to adopt e-learning at Nnamdi Azikiwe University?

Method:

The study employed a descriptive survey research design. The target population of this study were all CEP students from the Faculty of Education, Nnamdi Azikiwe University, Awka. A structured questionnaire was used as the instrument for data collection. The questionnaire was adapted from Eiriemiokhale and Idiedo (2020). The questionnaire was divided into two parts. The first part of the questionnaire captured background information about the respondents. The second part of the questions has four clusters and each cluster assesses each of the variables under study. The clusters were structured on a four-point response scale format. The instrument was pre-tested, and Cronbach's Alpha co-efficient test (r) yielded 0.71, which indicates that the instrument was reliable. The administration of the questionnaire was done using an online hosted Google form. The link to the forms was made available to the target students across all the levels of the various departments in the faculty using their respective WhatsApp Group platforms through their various course representatives. The questionnaire had a provision for informed consent and assured anonymity of the respondents on the first displayed page of the questionnaire. A total of 345 CEP students filled out the questionnaire and were used for the analysis. The data collected were analysed using Statistical Package for Social Sciences (SPSS) version 21. Descriptive statistics such as percentages, mean and standard deviation were used to present the findings.

Results:

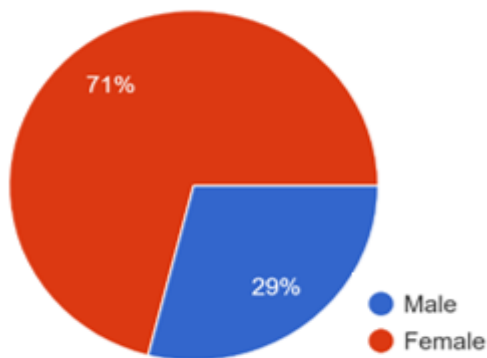


Fig 1: Distribution of Respondents according to Gender

Among the 345 respondents, 245 were female students, while 100 of the respondents were male students. This represents 70.9% and 29.1% for female and male students respectively.

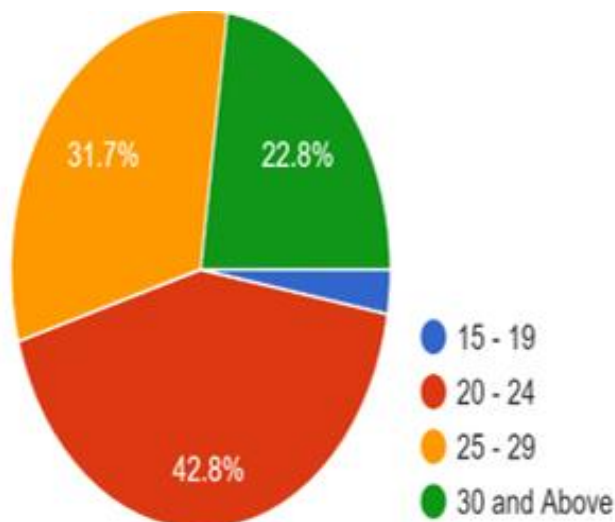


Fig 2: Distribution of the Respondents based on Age

The age range of 20 -24 represented the model age limit of the respondents selected for the study. 42.8% (148 students) falls within this age limit, 31.7% (109 students) were aged between 25 – 29, while 22.8% (79 students) were above 30 years of age, 2.7% (9 respondents) were between 15 and 19 years.

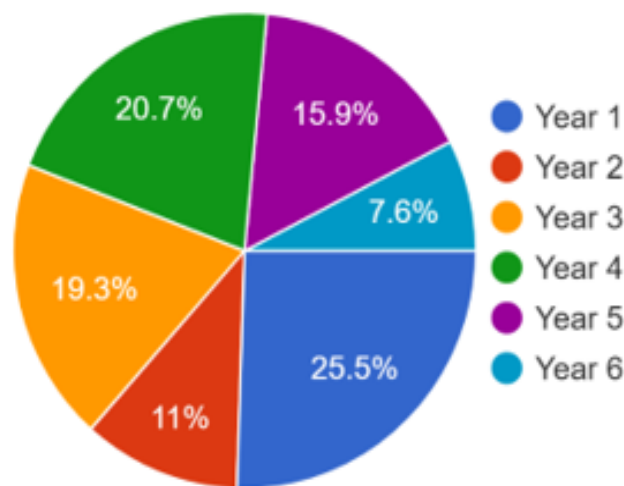


Fig 3: Distribution of Respondents based on Level of study.

25.5 % of the respondents (88 students) were 100-level students; 11% (38 students) were 200-level students; 19.3% (67 respondents) were 300 level students, 20.7 % (71 respondents) were 400 level students; 15.9% (55 respondents) were 500 level students, while 7.6% (26 respondents) were 600 level students.



Fig 4: Distribution of Respondents according to Department

The Department of Educational Management and Policy, as well as the Department of Educational Foundations, had the joint highest number of respondents with 22.8% (79 respondents) each. The Department of Science Education represented 19.3% (66 respondents). Vocational Education comprised 12.4% (43 respondents); Guidance and Counselling had 9.7% (33 respondents). The other respondents consist of 4.8% (17 respondents);

4.4% (15 respondents); and 3.8% (13 respondents) for Human Kinetics and Health Education, Adult Education and Early Childhood Department respectively.

Research Question One: What is the perception of CEP students on adopting E-learning in Nnamdi Azikiwe University?

Table 1: Mean and Standard Deviation on the Perception of CEP students on the adoption of E-learning in Nnamdi Azikiwe University

S/N	Perception of Adoption of E-learning	\bar{x}	SD	Decision
1.	E-learning will offer the possibility to efficiently manage my time	2.51	.87	Agree
2	E-learning will reduce my educational cost over face-to-face classes	2.54	.92	Agree
3	I need to be Trained before I undergo any E-learning activity	2.80	.94	Strongly Agree
4	I think I prefer the online learning method over the face-to-face classroom method	1.40	.76	Strongly Disagree
5	The use of E-learning methods will make learning easier for CEP students	1.90	.79	Disagree
6	E-learning will guarantee learning flexibility	2.51	.84	Agree
7	E-learning is a welcome idea for CEP	2.26	.81	Agree
8	There will be a significant improvement in my academic performance as a result of E-learning	2.0	.70	Agree
9	I feel that online learning will help me to improve on my digital proficiency	2.84	.94	Strongly Agree
10	I believe online learning will be very useful to me	2.40	.76	Agree
	Grand Mean Score / Standard Deviation	2.32	.83	Agree

Data presented in Table 1 show the mean response scores and standard deviation of perception of CEP students in Nnamdi Azikiwe University on the adoption of E-learning. From the responses to the ten items, it can be seen that the respondents have a Cluster Mean Score of 2.32 and Cluster Standard deviation of .83. This implies that the students are open to the idea of integration of E-learning as a major pedagogical tool. However, the negative responses observed in items 4 and 5 implied that

even though the students are willing to embrace E-learning, they still prefer the conventional face-to-face method of lesson delivery. Generally, CEP students have a positive perception towards the adoption of e-learning in Nnamdi Azikiwe University, Awka.

Research Question Two: What is the attitude of Nnamdi Azikiwe University CEP students to adopting E-learning?

Table 2: Mean and Standard Deviation of Responses on Students' Attitude to the Adoption of E-learning in Nnamdi Azikiwe University.

S/N	Attitude to Adoption of E-learning	\bar{x}	SD	Decision
1	I believe it will be a good idea to use E-learning tools	2.41	.81	Agree
2	I generally have a favourable attitude towards using E-learning tools	2.10	.74	Agree
3	I feel confident when using E-learning tools	2.22	.76	Agree
4	I would be interested in studying my courses via E-learning	2.11	.71	Agree
5	I feel that I will enjoy the convenience in learning as a result of E-learning	2.18	.75	Agree
6	If E-learning is adopted for CEP courses, I will quit the programme	1.57	.62	Disagree
7	I feel that introducing online teaching to CEP will dampen my spirit towards the programme	2.01	.68	Agree
8	I feel that CEP in Nnamdi Azikiwe University is not ripe for E-learning	2.30	.73	Agree
9	I dislike the idea of adopting E-learning for CEP students	1.80	.59	Disagree
10	I feel that E-learning will allow me to learn better	2.18	.74	Agree
	Grand Mean / Standard deviation (Positively worded items)	2.20/.75		
	Grand Mean / Standard deviation (Negative worded items) 1.92/0.66			

From the data in Table 2 on the attitude of CEP students towards E-learning in Nnamdi Azikiwe University, it was observed that the responses had a Cluster Mean for positive items; (items 1, 2, 3, 4, 5 and 10 is 2.20, and Cluster Standard deviation of

.75. This points to a general positive attitude of the students towards the adoption of E-learning. For negatively worded items (items 6, 7, 8, 9), the Cluster Mean and Cluster deviation obtained were 1.92 and 0.66 respectively. This implied that the

students disagreed with the negative items that alluded to a negative attitude towards the adoption of E-learning for CEP at Nnamdi Azikiwe University. Nevertheless, responses to items 8 and 9 revealed that students were still a bit sceptical

about the prospects of running a hitch-free E-learning for CEP in the institution.

Research Question Three: How ready are CEP students to adopt E-learning at Nnamdi Azikiwe University?

Table 3: Mean Response and Standard Deviation of students' readiness to adopt E-learning in Nnamdi Azikiwe University.

S/N	Students' readiness to adopt E-learning	\bar{x}	SD	Decision
1	I need a sound digital device to participate in online classes	3.28	.98	Strongly Agree
2	I need to have a sound knowledge of ICT to participate in an online learning platform	2.98	.89	Strongly Agree
3	One needs to have a mastery of the internet before using online learning platforms would not be a problem	2.98	.89	Strongly Agree
4	I need uninterrupted access to the internet to get me connected to an online learning class	3.48	1.03	Strongly Agree
5	I need to have a regular power supply to engage in online classes	3.40	1.01	Strongly Agree
6	I would not experience any form of distraction when engaging in an online class	2.48	.83	Agree
7	Generally, I am ready for E-learning throughout my studentship	2.24	.81	Agree
	Grand Mean / Cluster Standard deviation	2.98	0.92	

Table 3 shows the results of the students' readiness to adopt E-learning in Nnamdi Azikiwe University. Based on the analysis of Table 3 above, the grand mean of 2.98 and standard deviation of .92 revealed that students agreed that they are not entirely ready for the adoption of E-learning for CEP at Nnamdi Azikiwe University. Items 1 – 7 highlighted the

important needs that must be met before total readiness is achieved.

Research Question Four: To what extent are CEP students ready to adopt E-learning at Nnamdi Azikiwe University?

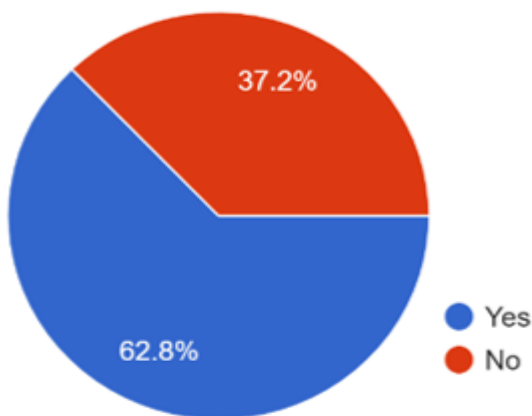


Fig 5: Willingness to adopt E-learning

From the diagram above, it can be observed that 62.8% of the respondents, which translates to 217 respondents, expressed their willingness to adopt E-learning for CEP at Nnamdi Azikiwe University. On the other hand, 128 respondents kicked against the adoption of learning. Thus, it could be concluded that to a significant extent, there is a clamour, amongst students, for the adoption of E-learning for CEP in Nnamdi Azikiwe University, Awka.

Discussion:

The researchers set out to assess CEP students' perception, attitude, readiness, and willingness to adopt e-learning at Nnamdi Azikiwe University, Awka using descriptive statistics such as percentages, means and standard deviation to answer the research questions. The need to evaluate CEP students' perception, attitude, readiness, and willingness to adopt of e-learning in Nnamdi Azikiwe University, Awka has become pertinent in the face of the rising technological advancements in teaching and learning which accommodate learners from all over the globe to participate in teaching and learning without physical contact.

The study showed that among the 345 respondents, 245 were female students, while 100 of the respondents were male students. This represents 70.9% and 29.1% for female and male students respectively. The age range of 20 -24 represented the model age limit of the respondents selected for the study. 42.8% (148 students) fall within this age limit 31.7% (109 students) were aged between 25 – 29, 22.8% (79 students) were above 30 years of age 2.7% (9 respondents) were between 15 and 19 years. In terms of level of study, 25.5 % of the respondents (88 students) were 100-level students; 11% (38 students) were 200-level students; 19.3% (67 respondents) were 300-level students, 20.7 % (71 respondents) were 400-level students; 15.9% (55 respondents) were 500 level students, while 7.6% (26 respondents) were 600 level students. Distribution according to the Department showed that the Department of Educational Management and Policy, as well as the Department of Educational Foundations, had the joint highest number of respondents with 22.8% (79 respondents) each. The Department of Science Education represented 19.3% (66 respondents). Vocational Education made up 12.4% (43 respondents); Guidance and Counselling had 9.7% (33 respondents). The other respondents consist of 4.8% (17 respondents); 4.4% (15 respondents); and 3.8% (13 respondents) for Human Kinetics and Health Education, Adult Education and Early Childhood Department respectively.

The findings of the study revealed that CEP students at the Faculty of Education, Nnamdi Azikiwe University Awka are open to the idea of integration of E-learning as a major pedagogical tool. The students agreed that the adoption of e-learning will offer them the possibility to efficiently manage their time; reduce educational costs; guarantee learning flexibility and help to improve their digital proficiency among others. This finding corroborates with Ihechukwu and Chima (2016) and Eiriemiokhale and Idiedo (2020) who showed that students' perceptions towards e-learning are positive. It however, disagrees with Abbasi, Ayoob, Malik and Memon (2020) who reported a negative perception of students towards e-learning during the lockdown at Liaquat College of Medicine and Dentistry. The disparity in findings could be due to the effects of the lockdown and the distressing impact of COVID-19 which could have tampered with the students' interest to continue their studies during the lockdown period.

This study showed that CEP students of the Faculty of Education, have a generally positive attitude towards the adoption of e-learning in Nnamdi Azikiwe University Awka. They believe that the adoption of e-learning for their programme is a good idea and affirmed their interest and confidence in using e-learning tools but however, posited that the institution is not yet ripe for e-learning. This finding validates Shetty, Shilpa, Dey and Kavya (2020) and Eiriemiokhale and Idiedo (2020) who found that students have a positive attitude towards the adoption of e-learning.

The finding of the study showed that CEP students are not entirely ready to adopt e-learning in Nnamdi Azikiwe University Awka. This is given the fact that the students posited that they need the following to participate in online classes: a sound digital device; a sound knowledge of ICT and a mastery of the internet; uninterrupted access to the internet; and regular power supply. This finding agrees with Chung, Subramaniam and Dass (2020) who revealed that the readiness of students to participate in online learning is slightly moderate, noting that many of the students were not ready due to challenges facing the use of e-learning. It,

however, disagrees with Olayemi, Adamu and Olayemi (2021) who showed a high level of readiness for e-learning among the students in Nigeria during the Covid-19 pandemic. The disparity in findings could be a result of the lockdown during the period of Covid-19 which forced most schools to consider e-learning for their students.

Finally, the study revealed that 62.8% of the respondents expressed their willingness to adopt E-learning for CEP at Nnamdi Azikiwe University. This shows that Faculty of Education CEP students clamour for the adoption of e-learning in their academic pursuit in NAU, Awka. The student's willingness might have been strengthened by the adoption of e-learning by its counterpart part-time programme in the institution which gives room for the students to participate in online classes from the comfort of any place of their choice. This finding aligns with Akpan and Tralagba (2019) who reported that students showed a willingness to adopt e-learning.

Conclusion and Limitation of the Study:

From the findings, the researchers conclude that CEP students in the Faculty of Education, Nnamdi Azikiwe University, Awka has positive perceptions, and attitudes and are willing to adopt e-learning, but they are not yet entirely ready for e-learning due to some challenges ranging from irregular power supply, lack of uninterrupted access to the internet and lack of mastery of ICT usage.

The study was conducted with only CEP students in the Faculty of Education which might not be the general opinion of the entire CEP students in NAU, Awka. Considering the above, caution should be taken in generalizing the findings.

Recommendations:

Based on the findings of the study, the researchers recommend as follows:

1. The University Management should ensure the provision of ICT facilities and virtual classrooms for the effective adoption of e-learning in the university;

2. The University Management should grant uninterrupted access to the internet to both staff and students for e-learning;
3. The School Management should ensure the availability of uninterrupted power supply in the school premises to ensure unhindered online learning;
4. The Directorate of CEP should organize training and workshops for CEP students to acquire the necessary skills for participation in online learning.
5. Class lecturers should adopt a blend of the conventional teaching method and e-learning in order to acclimatize the learners to online instruction, and at the same time preserve the benefits of face-to-face interactions.

Competing Interests:

The authors have declared that no competing interests exist.

References:

1. Abbasi, S., Ayoob, T., Malik, A., & Memon, S. I. (2020) Perceptions of students regarding elearning during Covid-19 at a private medical college. *Pak J Med Sci.* 236, S57-S61. doi: <https://doi.org/10.12669/pjms.36.COVID19-S4.2766>
2. Adeoye, A. I; Adanikin, A. F. & Adanikin, A. (2020). Covid-19 and E-Learning: Nigeria tertiary education system experience. *International Journal of Research and Innovation in Applied Science* 5 (5), 28-31. <https://www.rsisinternational.org/journals/ijrias/DigitalLibrary/Vol.5&Issue5/28-31.pdf>
3. Akpan, A. G. & Tralagba, C. E. (2019). Perception of mobile phone users on e-learning in Evangel University, Akaeze – Nigeria. *Global Science Journal*, 7(7). 325-344
4. Anierobi, E. I.; Nwogbo, V. N.; Ogbe, I. J. & Oyeyemi, A. A. (2022). Academic motivation and self-efficacy as

- determinants of academic performance of secondary school students in Anambra State, Nigeria. *Asian Journal of Advances in Research* 16 (1), 22-31. <https://mbimph.com/index.php/AJOAIR/article/view/2964>
5. Chung, E., Subramaniam, G., & Dass, L. C. (2020). Online learning readiness among university students in Malaysia amidst Covid-19. *Asian Journal of University Education*, 16 (2), 46- 58.
 6. Eiriemiokhale, K. A. & Victor O. Idiedo, V. O. (2020). Perceptions and Attitude of Students toward E-Learning in Kwara State University, Malete, Kwara State, Nigeria. *Journal of Education and Practice* 11 (31), 60-67. doi: 10.7176/JEP/11-31-08. www.iiste.org
 7. Ezenwafor, J. I. & Ementa, C. N. (2016). Assessment of constraining factors to e-learning adoption by business educators in tertiary institutions in Anambra State. *International Journal of Innovative Education Research* 4 (2), 22-31. Retrieved from <http://seahijap.org>.
 8. Ihechukwu, N. B. Ikwuanusi, E. N. & Chima, U. (2016). Students' perceptions of use of e-learning in science education. *JORIND* 14 (1), 1-7. Retrieved from <http://www.transcampus.org/journal>.
 9. Olayemi, O. M; Adamu, H. & Olayemi, K. J. (2021). Perception and Readiness of Students' Towards Online Learning in Nigeria During Covid-19 Pandemic. *Library Philosophy and Practice (e-journal)*. 5051. <https://digitalcommons.unl.edu/libphilprac/5051>
 10. Shetty, S., Shilpa, C., Dey, D., & Kavya, S. (2020). Academic crisis during COVID 19: Online classes, a panacea for imminent doctors. *Indian J Otolaryngol Head Neck Surg*. <https://doi.org/10.1007/s12070-020-02224-x>
 11. Widodo, S. F. A.; Wibobo, Y. E. & Wagiran, W. (2020). Online learning readiness during the Covid19 pandemic. *Journal of Physics: Online Series*. <https://doi:10.1088/1742-6596/1700/1/012033>