Journal of Engineering and Applied Sciences
MEDWELL PUBLICATIONS

Awareness and Proficiency of English Language Lecturers in the Use of Emerging Technologies in Post COVID-19 Era

[1]Emelogu Ngozi Ugonma, [1]Okoyeukwu Ngozi Georgina and [2]Chigbu Godswill Uchechukwu
[1]*Department of Arts Education, Faculty of Education, University of Nigeria, Nsukka, Nigeria*
[2]*Department of English and Literary Studies, Faculty of Arts, University of Nigeria, Nsukka, Nigeria*

Key words: Awareness, proficiency, English language, emerging technologies, gender, age, COVID-19

Corresponding Author:
Chigbu Godswill Uchechukwu
Department of English and Literary Studies, Faculty of Arts, University of Nigeria, Nsukka, Nigeria

Page No.: 304-312
Volume: 16, Issue 10, 2021
ISSN: 1816-949x
Journal of Engineering and Applied Sciences

Abstract: The outbreak of COVID-19 pandemic which has resulted in the shutting down of schools globally has made a virtual classroom urgently imperative to support the physical classroom. This move cannot be realistic if the awareness and proficiency of the stakeholders are not guaranteed. Hence, this study examined the awareness and proficiency of English language lecturers in the use of emerging technologies in Post-COVID-19 era as well as the availability of the emerging technologies. The study adopted a survey research design. Two research questions and purposes of the study and four hypotheses were formulated to guide the study. The population of the study comprised all English language lecturers in University of Nigeria, Nsukka and its affiliate: Alvan Ikoku Federal College of Education, Owerri. A 37-item structured questionnaire was used for data collection. The data collected were analyzed using mean, standard deviation, t-test. The study found among others, that there is a significant difference between male and female English language lecturer's proficiency level in the use of emerging technologies for teaching in Post-COVID-19 era. The study is a significant contribution to other studies on the use of emerging technologies with respect to gender and age.

INTRODUCTION

Coronavirus, also known as COVID-19 has paused the world economy since the 11th of March 2020 when the World Health Organization (WHO) announced the virus as a pandemic. United Nation's Education, Scientific and Cultural Organization (UNESCO) also confirmed that the pandemic has affected >90% of the world's total student population during the mid of April, 2020[1]. Consequently, this led to total global lockdown including schools. Students globally were affected by the lockdown as every school activity was brought to a halt. Teachers and students were left with no option than to engage in online lessons. Despite the psychological, economic, and social challenges unleashed by the pandemic, innovation in educational technologies increased and actually took the center stage. The crisis ushered in new (Emerging) technologies and made the already existing ones more relevant.

Emerging technologies are new digital technologies that enable the application of multimedia tools. According to Oliveira *et al*.[2], emerging technologies are same as new technologies that emanated from previous human technological achievements. Jackson[3] defines emerging technologies as digital technologies that improve communication, research and productivity primarily through the use of Internet. Emerging technologies can be categorized into software and hardware technologies. They can further be grouped into multimodal communication technologies (audio and audiovisual technologies) which are downloadable through Internet connection in our computers and other handheld devices. These technologies include Skype, Vimeo, YouTube, Zoom, Google class, Moodle, Wiki, WebEx, Blog, Google Docs, Facebook, Instagram, Email, Twitter among others. These digital technologies cannot be optimized without the backend emerging technologies such as computational thinking, simulation, dynamic visualizations and Virtual labs, computational technology-mediated play and Creative artistic technologies[2].

In education, these emerging technologies allow communication and virtual interactions at all levels. They often supplement classroom instruction by creating an enabling environment for teachers to use multimedia tools in active learner's engagement. Most of these emerging technologies promote computer-mediated communication, also known as computer-mediated discussion. Emerging technologies facilitate the creation, uploading, downloading and exchange or sharing of content files. Barreto[4] opines that emerging technologies have also provided various means through which teachers and learners receive, analyze and use information. Fastiggi[5] corroborates that emerging technologies have greatly made education more accessible by facilitating learning process. The emergent of emerging technologies together with other already existing technologies have brought a total paradigm shift in the way teachers teach and the way learners learn. The concept of traditional classrooms where teachers assume the role of experts have given way to teachers being facilitators and learners actively taking charge of their learning. Education can easily be accessed anywhere and at anytime. A clear example of the accessibility of education through emerging technologies was during the total global lockdown of March, 2020. While economic and social activities came to a standstill, the virtual doors of education were flung open due to emerging technologies. Digital technologies such as Zoom. Moodle, Google class, WhatsApp, YouTube among others provided a platform for ceaseless online learning amidst the COVID-19 lockdown.

This unexpected shift to online learning brings to bare the the awareness and proficiency of lecturers in the use of the emerging technologies. Awareness demands recognizing or acknowledging the existence of these emerging technologies by lecturers while proficiency requires practical exhibition of necessary skills by lecturers in creating, accessing, manipulating, organizing and sharing information using emerging technologies. NIWDEL.[6] defines awareness as possessing knowledge of some fact or action; a state of being conscious or aware or being cognizant. According to Akpojotor[7] awareness refers to knowledge or perception of a situation, facts, consciousness, recognition, realization, grasp and acknowledgement, concern about and well-informed interest. Abba and Gora[8] add that awareness entails lecturer's ability to know about Internet services and other technological tools that can be used in carrying out academic activities while proficiency is the ability or skills possessed by lecturers in operating or using internet services and other technological resources for their activities. Saad and Sankaran[9] assert that technology proficiency is the teacher's/lecturer's ability to integrate technology in instruction in order to improve learning and productivity.

Integration of technology in the teaching of English language cannot be underscored due to its envious position in the country. English language is language of government, education, law, commerce, industry and administration. It is the medium of communication between various linguistic groups in Nigeria. It plays a dual role of an official language and a second language. English language is one of the core subjects in Nigerian curriculum as stipulated by the Federal Republic of Nigeria[10]. It is equally a medium of instruction at all levels of education in Nigeria and a prerequisite for entering into tertiary institutions. Oribabor[11] remarks that English language is the backbone of all subjects taught in secondary schools while Egbe[12] adds that the ability to speak English language has become a parameter for measuring a child's intelligence by laymen. Chigbu *et al*.[13] intone that proficiency in English language determines one's academic and professional success. Based on the importance of English language in the academic life of every Nigerian child, its teaching and learning must be adequately considered on the launch pad of emerging educational technologies. Lecturer's awareness and proficiency in the use of emerging technologies is a great necessity as there cannot be any successful research, collaboration, publications and online curriculum delivery without adequate content and pedagogical knowledge of the integration of new technologies. Christensen and Knezek[14] posit that lecturers as key players in any technology initiative in the

classroom need to be at ease in using the new technologies that are rapidly taking the foreground in education and understand the pedagogical strategies for effectively integrating technology into learning. Messina and Tabone[15] encourage teachers to embrace and explore a wide variety of technological devices as this will increase their proficiency and flexibility in the use of emerging technologies in meeting various demands of educational practices. It is obvious that there cannot be a successful virtual or blended learning in the Post-COVID-19 era without teacher's/lecturer's awareness and proficiency of the use of emerging technologies. The awareness and proficiency of lecturers in the use of technology in instruction delivery are hinged on some factors such as gender and age.

The term gender is a culturally and socially defined perceptions of male and female entities that differ from one society or temporal to another. Ismaila and Jekanyinfa[16] conceived to be a cultural-based behavioral role assignment to males and females; hence, it is unique to a culture and not global. Gender, for Yemane *et al*.[17] are cultural and natural environmentally determined roles of males and females. Nonetheless, gender, according to Azor *et al*.[18] 'on some occasions, transcends into the educational careers of students and their use of digital technology'. Age, on the other hand is a human attribute that has begun gaining considerable attention, especially in educational studies. Age is a time-record of life. Research has proven that gender and age have a great effect on the awareness and proficiency in technology use. Studies such as Chen[19], Collise[20], Shashaani[21], Koohang[22], Enoch and Soker[23] and Yau and Cheng[24] have shown that there is a great gender gap in computer proficiency and other technological devices with males being highly proficient than females. In support of these findings, Zhou and Xu[25] remark that studies in the last decades have shown a gender disparity in technological tools proficiency. Contrarily, Prieto *et al*.[26] add that studies in recent decades reveal that there are no significant gender differences between teachers with respect to the application of E-skills by teaching professionals. Garrido *et al*.[27] concur that there is a gender gap in the use of ICT but further highlight that these gaps have disappeared in the domain of basic and moderate knowledge of digital tools but exist at the level of computer application development. The digital proficiency gender gap could be as a result of cultural barriers and stereotypes faced by women. This automatically brings a setback to women in knowledge and skills. OECD[28] agrees that cultural barriers and stereotypes are major factors inhibiting women from accessing, using or affording digital tools. Age of the users of these technological tools is another factor that determines their awareness and proficiency. One can easily agree that technology advancements are generational hence the awareness and proficiency can also be attributed to be generational. The young ones who are born into a particular technological era may tend to be more proficient in the use of the technology of that time than those born before the era. The recent technological development may be conversant to the younger lecturers then the older ones. Sheriff[29] posits that most of the students of this technological era are potential digital experts based on the fact that they are born into digital information age while the majority of the teachers would be born prior to the era of digital technologies thereby making the students to be referred as Net Generation or Digital Natives and the teachers as Digital Immigrants. It is also possible that the easy accessibility of information in this digital era has put everyone both young and old at par in digital proficiency. The study carried out by Mahdi and Al-Dera[30] revealed that there is no significant difference between the two age groups (20-39) and (40-60) regarding the use of ICT in English language teaching. Awareness and proficiency level of teachers/lecturers in using technological tools for teaching still remains inconclusive. For the objective of this study, ages 20-49 are categorized as young, while ages 50-70 are categorized as old. Moreover, in relation to Presky[31] dichotomy, young lecturers would be described as digital natives while the old lecturers as digital immigrants. Based on this backdrop, this study sought to determine English language lecture's level of awareness and proficiency in the use of emerging technologies in relation to gender and age.

Purpose of the study: The main purpose of the study was to investigate English language lecturer's awareness and proficiency in the use of emerging technologies in post COVID-19 era. Specifically, the study sought to:

- Determine the awareness level of English language lecturers in the use of emerging technologies in post COVID-19 era
- Determine the proficiency level of English language lecturers in the use of emerging technologies in post COVID-19 era

Research questions: The following research questions were formulated to guide the study:

- What is the awareness level of English language lecturers in the use of emerging technologies in Post-COVID-19 era?
- What is the proficiency level of English language lecturers in the use of emerging technologies in Post-COVID-19 era?

Hypothesis: The following null hypothesis were tested at a 5% level of significance:

- Ho_1: there is no significant difference between male and female English language lecturer's level of awareness in the use of emerging technologies
- Ho_2: there is no significant difference between young and old English language lecturer's level of awareness in the use of emerging technologies
- Ho_3: there is no significant difference between male and female English language lecturer's proficiency level in the use of emerging technologies
- Ho_4: there is no significant difference between young and old English language lecturers' proficiency level in the use of emerging technologies

MATERIALS AND METHODS

The study adopted a survey research design with descriptive and inferential statistics. The survey research design allows for the collection of primary data by administering questionnaires and interviews at a particular time with variables not subjected to experimentation, control and manipulation. The population of the study comprised 90 English language lecturers from University of Nigeria, Nsukka and its affiliate: Alvan Ikoku College of Education, Owerri (58 English language lecturers from University of Nigeria, Nsukka and 32 English language lecturers from Alvan Ikoku College of Education). A sample of 53 English language lecturers from University of Nigeria, Nsukka and Alvan Ikoku Federal College of Education was drawn using non-proportionate stratified random sampling technique. This was done by sampling 55% of the entire population resulting to 31 English language lecturers from University of Nigeria, Nsukka and 22 English language lecturers from Alvan Ikoku College of Education, Owerri. Furthermore, the sample is divided into 27 males and 26 females.

Due to the covid-19 lockdown that restricted movement and physical contact, a self-structured online questionnaire was used to collect data from the population. It was designed using the Google Form online questionnaire package and sent to emails and social media contacts of the participants. The first section collected demographic information about the participant's gender and age. The next section of the questionnaire asked about awareness and proficiency in using emerging technologies by English language lecturers for teaching English language courses in Post-COVID-19 era. The awareness questions and proficiency questions provided statements that were ranked on four-point Likert scales. The mean, standard deviation analyzed the research questions while t-test was used for testing the hypothesis.

RESULTS

The results are presented according to the research questions and hypotheses that guided the study.

Table 1: Mean rating of respondents on the awareness level of English language lecturers in the use of these emerging technologies for teaching in Post-COVID-19 era

	Respondents (N = 53)		
Items/Statement	$\bar{X}$	SD	D
Skype	3.26	1.30	A
Vimeo	1.28	0.88	R
Zoom	3.71	0.88	A
Google classroom	3.54	1.08	A
Moodle	2.58	1.51	A
Webex	1.73	1.30	R
Facebook	3.77	0.80	A
Instagram	3.71	0.88	A
Email	3.88	0.57	A
Wikis	2.52	1.51	A
Blog	3.60	1.02	A
Google Docs	2.98	1.43	A
Twitter	3.66	0.95	A
WhatsApp	3.94	0.41	A
YouTube	3.71	0.88	A
Smartphone	3.88	0.57	A
Tablet	3.66	0.95	A
Grand mean	3.26		

$\bar{X}$ = Mean; SD = Standard Deviation; A = Accept; R = Reject; N = Number of Respondents and above D = Decision

Research question 1: What is the awareness level of English language lecturers in the use of these emerging technologies for teaching in Post-COVID-19 era?

The results in Table 1 show the mean rating of the respondents on the awareness level of English language lecturers in the use of emerging technologies for teaching in Post-COVID-19 era. The respondents agreed on all the items 1 (M = 3.26, SD = 1.30); 3 (M = 3.71, SD = 0.88); 4 (M = 3.54, SD = 1.08); 5 (M = 2.58, SD = 1.51); 7 (M = 3.77, SD = 0.80); 8 (M = 3.71, SD = 0.88); 9 (M = 3.88, SD = 0.57) 10 (M = 2.52, SD = 1.51); 11 (M = 3.60, SD = 1.02); 12 (M = 2.98, SD = 1.43); 13 (M = 3.66, SD = 0.95); 14 (M = 3.94, SD = 0.41); 15 (M = 3.71, SD = 0.88); 16 (M = 3.88, SD = 0.57) and 17 (M = 3.66, SD = 0.95) which means that the English language lecturers are aware of the use of Skype, Zoom, Google Classroom, Moodle, Facebook, Instagram, Email, Wikis, Blog, Google Docs, Twitter, WhatsApp, YouTube, Smartphone and Tablet for teaching in Post-COVID-19 era. Items 2 (M = 1.28 SD = 0.88) and 6 (M = 1.73 SD = 1.306) are agreed to be new to English language lecturers. However, the grand mean (3.26) indicates that English language lecturers' level of awareness in the use of emerging technologies for teaching in Post-COVID-19 era is considerably high.

Research question 2: What is the proficiency level of English language lecturers in the use of emerging technologies in Post-COVID-19 era?

The results in Table 2 show the mean rating of the respondents on the proficiency level of English language lecturers in the use of emerging technologies in Post-COVID-19 era. The respondents agreed to items 18

Table 2: Mean rating of respondents on proficiency level of English language lecturers in the use of emerging technologies in Post-COVID-19 era

	Respondents (N = 53)		
Items/Statement	$\bar{X}$	SD	D
Use emerging technologies to teach my students from a distance.	3.39	0.68	A
Schedule and host a Zoom meeting	3.22	0.93	A
Share you screen during Zoom meeting	3.15	0.96	A
Admit participants to Zoom meeting	3.09	1.06	A
Use social media tools for instruction in the classroom. (e.g., Facebook, Twitter, etc.)	3.30	0.95	A
Use the computer to create a slideshow presentation.	3.56	0.84	A
Find the primary sources of information on the Internet that I can use in my teaching.	3.75	0.58	A
Send E-mail to students and colleagues	3.83	0.50	A
Send a document as an attachment to an e-mail message.	3.79	0.53	A
Create a distribution list to send e-mail to several people at once	3.43	0.90	A
Create a wiki or blog to have my students collaborate	2.64	1.11	A
Create Google classroom	2.81	1.12	A
Teach courses using Moodle platform	2.45	1.15	R
Create group platform on Facebook	3.28	1.06	A
Create group platform on WhatsApp	3.56	0.84	A
Use technology to collaborate with teachers or students, who are distant from my classroom	3.47	0.84	A
Upload video recorded lecture/presentation on YouTube	2.98	1.11	A
Upload video-recorded lecture/presentation on Vimeo	2.07	1.32	R
Transfer photos or other data via. a smartphone.	3.66	0.83	A
Use an Internet search engine (e.g., Google) to find Web pages related to my subject matter interests.	3.73	0.65	A
Grand mean	3.26		

$\bar{X}$/M = Mean; SD = Standard Deviation; A = Accept; R = Reject; N = Number of Respondents and above D = Decision

Table 3: Summary table of t-test analysis

Groups	N	$\bar{X}$	SD	t-value	df	Sig. (2-tailed)	Decision
Female lecturers	53	3.25	0.80	-0.069	32	0.946	NS
Male lecturers	3.27	0.79					

Sig. = Significant; NS = No Significant

(M = 3.39, SD = 0.68); 19 (M = 3.22, SD = 0.93) 20 (M = 3.15, SD = 0.96) 21 (M = 3.09, SD = 1.06) 22 (M = 3.30, SD = 0.95) 23 (M = 3.56, SD = 0.84) 24 (M = 3.75, SD = 0.58) 25 (M = 3.83, SD = 0.50) 26 (M = 3.79, SD = 0.53) 27 (M = 3.43, SD = 0.90) 28 (M = 2.64, SD = 1.11) 29 (M = 2.81, SD = 1.12) 31 (M = 3.28, SD = 1.06) 32 (M = 3.56, SD = 0.84) 33 (M = 3.47, SD = 0.84) 34 (M = 2.98, SD = 1.11) 36 (M = 3.66, SD = 0.83) 37 (M = 3.73, SD = 0.65); and rejected Items 30 (M = 2.45, SD = 1.15) and 35 (M = 2.07 1.32). With the grand mean of 3.26, it suggests that English language demonstrated a good degree of proficiency in the use of emerging technologies for teaching in Post-COVID-19 era.

Hypothesis testing

Hypothesis 1: There is no significant difference between male and female English language lecturer's level of awareness in the use of emerging technologies.

Table 3: t-test analysis of no significant difference between male and female English language lecturer's level of awareness in the use of emerging technologies.

The result in Table 3 shows the t-test analysis of no significant difference between male and female English language lecturers' the level of awareness in the use of emerging technologies. Table 3 reveals that t(-0.069) = 32, p>0.945. Since, the probability figure (Sig.2-tailed) of 0.946 is >0.05, the null hypothesis, therefore, is not rejected. Thus, there is no statistically significant difference between male and female English language lecturer's level of awareness in the use of emerging technologies.

Hypothesis 2: There is no significant difference between young and old English language lecturer's level of awareness in the use of emerging technologies.

Table 4: t-test analysis of no significant difference between young and old English language lecturer's level of awareness in the use of emerging technologies.

The result in Table 4 shows the t-test analysis of no significant difference between young and old English language lecturer's level of awareness in the use of emerging technologies. Table 4 reveals that t(-0.333) = 32, p>0.741. Since, the probability figure (Sig.2-tailed) of 0.741 is >0.05, the null hypothesis, therefore, is not rejected. Thus, there is no statistically significant difference between young and old English language lecturer's proficiency level in the use of emerging technologies.

Hypothesis 3: There is no significant difference between male and female English language lecturer's proficiency level in the use of emerging technologies.

Table 5: t-test analysis of no significant difference between male and female English language lecturer's proficiency level in the use of emerging technologies.

Table 4: Summary table of t-test analysis

Groups	N	$\overline{X}$	SD	t-value	df	Sig. (2-tailed)	Decision
Young lecturers	53	3.22	0.84	-0.333	32	0.741	NS
Old lecturer	3.31	0.74					

Table 5: Summary table of t-test analysis

Groups	N	$\overline{X}$	SD	t-value	df	Sig. (2-tailed)	Decision
Female lecturers	53	3.43	0.46	2.327	38	0.025	Sig.
Male lecturers	3.08	0.50					

Table 6: Summary table of t-test analysis

Groups	N	$\overline{X}$	SD	t-value	df	Sig. (2-tailed)	Decision
Young lecturers	53	3.42	0.48	2.677	38	0.011	Sig.
Old lecturer	3.00	0.50					

Sig. = Significant; NS = No Significant

The result in Table 5 shows the t-test analysis of no significant difference between male and female English language lecturer's proficiency level in the use of emerging technologies. Table 5 reveals that t(0.2.327) = 38, p<0.025. Since, the probability figure (Sig.2-tailed) of 0.025 is <0.05, the null hypothesis therefore is rejected. Thus, there is a statistically significant difference between male and female English language lecturer's proficiency level in the use of emerging technologies.

Hypothesis 4: There is no significant difference between young and old English language lecturer's proficiency level in the use of emerging technologies.

Table 6: t-test analysis of no significant difference between young and old English language lecturer's proficiency level in the use of emerging technologies.

The result in Table 6 shows the t-test analysis of no significant difference young and old English language lecturers' proficiency level in the use of emerging technologies. Table 6 reveals that t(-2.677) = 38, p<0.011. Since, the probability figure (Sig.2-tailed) of 0.011 is <0.05, the null hypothesis therefore is rejected. Thus, there is a statistically significant difference between young and old English language lecturer's proficiency level in the use of emerging technologies.

DISCUSSION

The main objective of our study was to determine the awareness and proficiency of English language lecturers in the use of emerging technologies in post-covid era. Specifically, the study focused on the ties existing between the demographical variables, i.e., gender and age and the predicted variables, awareness and proficiency. In relation to the research question one (RQ1), English language lecturers are aware of the use of emerging technologies for teaching in Post-covid era. This finding may contrast with Obidike, etc. who found that English language teachers were not aware of the technological resources being used to improve reading and writing skills in children. The results of the present study could be informed by different participants (teachers of higher institutions against teachers of primary school) in the studies and timeframe between the two studies. Besides, lecturers are expected to be more advanced than the primary school teachers, since, they teach young adults.

With respect to the $Ho_{1,}$ it indicates no statistically significant difference between male and female English language lecturers' levels of awareness in the use of emerging technologies for teaching in Post-COVID-19 era. This result supports Verma and Dahiya[32] who submitted no 'meaningful difference between male and female faculty towards ICT awareness'. However, the study opposes, Philomina and Amutha[33] whose study reported that female teacher educators when compared to males, have more awareness towards ICT. The second corresponding hypothesis on awareness shows no statistically significant difference between young and old English language lecturer's levels of awareness in the use of emerging technologies for teaching in Post-COVID-19 era. The finding reinforces Guo *et al*.[34] finding that there is no significant difference between Digital Native teachers and Digital Immigrant teachers in relation to ICT. It suffices to conclude that gender and age do not affect awareness of emerging technologies. Both male or female lecturers and young and old lecturers are becoming updated, mindful, recognizing and understanding the usefulness of trending technology for integration into curriculum delivery.

On how proficient English language lecturers are in RQ2, the result shows that they are considerably proficient in the use of emerging in teaching in Post-COVID-19 era. This agrees with studies by Tena *et al*.[35], that submitted that university lecturers demonstrated a higher level of technological or ICT proficiency needed in teaching. However, it contrasted Dzikite *et al*.[36] and Cazco *et al*.[37] whose studies revealed lack of technological-pedagogical knowledge among university lecturers. For the Ho_{3}, it indicates a statistically significant difference between male and female English language lecturer's proficiency level in the use of emerging

technologies for teaching in Post-COVID-19 era. This result affirms the existence of digital gender gap in education in especially African. It agrees with Casillas *et al*.[38] and Zhou and Xu[28] on the less expertise of ICT by females than males. The result also gives credence to gender roles influence on technology because Huffman *et al*.[39] submitted that gender roles in particular (not only biological sex) play a large role in technology self-efficacy, especially, masculinity is a strong predictor of technology self-efficacy. Furthermore, the outcome of this finding could be shaped by the fact that females are less confident with technology[24] and 'because they have learned less and practiced less and more anxious with using computers when compared with male counterpart's. However, the result disagrees with Prieto *et al*.[26] in their research that did not detect a gender difference in teachers' mastery of ICT. While there are arguments that gender differences are neither large nor consistent across varied contexts, the Africa continent is an unfortunately an exception given that the reason for this gap on the continent, according to Majama[40] are contemporary and traceable to 'unaffordable access, threats to access and use, low digital literacy and confidence and the lack of relevant content, applications and service's (para. 3).

CONCLUSION

The H_{04} reveal a statistically significant difference between young and old English language lecturers' proficiency level in the use of emerging technologies for teaching in Post-Covid-19 era. This means that age is a variable that influences technology proficiency. This finding is suggested by Howlett and Waemusa[41] that the digital native teachers (the young) are more proficient and confident in using technology than the digital immigrant teachers (old). Furthermore, this is confirmed by Cabero and Barroso[42], Gudmundsdottir and Hatlevick[43] and Guillen-Gamez *et al*.[44]. In contrast, the result did not corroborate with the studies of DerKaay and Young[45] that found the technological skill levels of faculty members aged 55 or older to be similar to those of younger faculty members. Based on the findings of the study, the following recommendations are made:

- Institutions should provide necessary ICT facilities accessible to lecturers
- Institutions should organize regular ICT training for lecturers with special interest to female and old lecturers
- Greater learning is achieved by 'doing', hence, online teaching should be highly encouraged and perhaps, enforced

REFERENCES

01. Singh, S.D., 2020. Impact of COVID-19 on education sector. ResearchGate GmbH, Berlin, Germany.
02. Oliveira, A., F.R. Behnagh, L. Ni, A.A. Mohsinah, K.J. Burgess and L. Guo, 2019. Emerging technologies as pedagogical tools for teaching and learning science: A literature review. Hum. Behav. Emerging Technol., 1: 149-160.
03. Jackson, Z., 2014. The challenges of the emerging use of technology in schools: An analysis of a selected urban school system in Georgia. Ph.D. Thesis, University of Alabama, Tuscaloosa, Alabama.
04. Barreto, A.M.R., 2018. Motivating English language use by using the benefits of technology. GIST Educ. Learn. Res. J., 16: 117-140.
05. Fastiggi, W., 2014. A brief history of (education & educational technology). Technology for Learners, UK.
06. NIWDEL., 2013. U.S.A: Standard international media holdings, 101. The New International Websters Dictionary of English Language, UK.
07. Akpojotor, L.O., 2016. Awareness and usage of electronic information resources among postgraduate students of library and information science in Southern Nigeria. Lib. Philos. Pract. (E-Journal), Vol. 1408,
08. Abba, T. and A.L. Gora, 2019. University lecturers level of awareness and proficiency of internet services and resources for academic activities in Adamawa State, Nigeria. Lib. Philos. Pract., Vol. 1,
09. Saad, N. and S. Sankaran, 2020. Technology proficiency in teaching and facilitating. Oxford University Press, London, England.
10. Federal Republic of Nigeria, 2014. National Policy on Education. 7th Edn., NERDC Publisher, Lagos, Nigeria,.
11. Oribabor, O.A., 2014. An evaluation of the current English language curriculum in Nigerian secondary schools. J. Educ. Social Res., 4: 295-295.
12. Egbe, C.I., 2015. Effects of integrative language teaching approach on secondary school students' achievement and interest in English grammar. Ph.D. Thesis, Department of Arts Education, University of Nigeria Nsukka, Nigeria.
13. Chigbu, G.U., R.C. Ukwunna, N.U. Emelogu and N.G. Okoyeukwu, 2020. Awareness and proficiency in technology integration for English language teaching among secondary school teachers in Nsukka. IOSR J. Res. Method Educ., 10: 27-31.
14. Christensen, R. and G. Knezek, 2017. Validating the technology proficiency self-assessment questionnaire for 21st century learning (TPSA C-21). J. Digital Learn. Teach. Educ., 33: 20-31.

15. Messina, L. and S. Tabone, 2013. Technology proficiency, TPACK and beliefs about technology: A survey with primary school student teachers. REM-Res. Educ. Media, 5: 11-29.
16. Ismaila, O.O. and A. Jekayinfa, 2013. Cultural pluralism, reconstructive education and nation building in Nigeria. Int. J. Sociol. Anthropol., 5: 140-146.
17. Yemane, Y., E. Ambaye, A. Alehegn, E. Sahile, B. Dimtsu, S. Kebede, A. Genetu and A. Girma, 2017. Assessment of gender difference on learning styles preferences among regular undergraduate students of Mekelle university collage of health science. J. Stem Cell Biol. Transplant., Vol. 1, 10.21767/2575-7725.100014
18. Azor, R.O., U.D. Asogwa, E.N. Ogwu and A.A. Apeh, 2020. YouTube audio-visual documentaries: Effect on Nigeria students achievement and interest in history curriculum. J. Educ. Res., 113: 317-326.
19. Chen, M., 1986. Gender and computers: The beneficial effects of experience on attitudes. J. Educ. Comput. Res., 2: 265-282.
20. Collis, B., 1985. Sex differences in secondary school students attitudes toward computers. Comput. Teach., 12: 33-36.
21. Shashaani, L., 1994. Gender-differences in computer experience and its influence on computer attitudes. J. Educ. Comput. Res., 11: 347-367.
22. Koohang, A., 2004. Students perceptions toward the use of the digital library in weekly web-based distance learning assignments portion of a hybrid programme. Br. J. Educ. Technol., 35: 617-626.
23. Enoch, Y. and Z. Soker, 2006. Age, gender, ethnicity and the digital divide: university students use of web-based instruction. Open Learn. J. Open Distance E-Learn., 21: 99-110.
24. Yau, H.K. and A.L.F. Cheng, 2012. Gender difference of confidence in using technology for learning. J. Technol. Stud., 38: 74-79.
25. Zhou, G. and J. Xu, 2007. Adoption of educational technology: How does gender matter?. Int. J. Teach. Learn. Higher Educ., 19: 140-153.
26. Prieto, J.S., T.J.M. Torres, G.M. Garcia and G.G. Garcia, 2020. Gender and digital teaching competence in dual vocational education and training. Educ. Sci., Vol. 10, No. 3. 10.3390/educsci10030084
27. Garrido, L.A., L.R. Rubio, C.D.G. Valle and C. Dumitrache, 2019. Evaluation of the use of ICT in students at Malaga: Gender differences. Innoeduca, 5: 63-71.
28. OECD., 2019. The role of education and skills in bridging the digital gender divide. OECD., Paris, France.
29. Sheriff, R.E., 2012. An evaluation of students and lecturers use of technologies: An engineering case study. Eng. Educ., 7: 33-46.
30. Mahdi, H.S. and A.S.A. Al-Dera, 2013. The impact of teachers age, gender and experience on the use of information and communication technology in EFL teaching. English Lang. Teach., 6: 57-67.
31. Prensky, M., 2001. Digital natives, digital immigrants part 1. Horizon, 9: 1-6.
32. Verma, C. and S. Dahiya, 2016. Gender difference towards information and communication technology awareness in Indian universities. Springer Plus, Vol. 5, 10.1186/s40064-016-2003-1
33. Philomina, M.J. and S. Amutha, 2016. Information and communication technology awareness among teacher educators. Int. J. Inf. Educ. Technol., 6: 603-606.
34. Guo, R.X., T. Dobson and S. Petrina, 2008. Digital natives, digital immigrants: An analysis of age and ICT competency in teacher education. J. Educ. Comput. Res., 38: 235-254.
35. Tena, R.R., J.C. Almenara and J.B. Osuna, 2016. E-learning of Andalusian university's lecturers. Gender. Turk. Online J. Educ. Technol.-TOJET., 15: 25-37.
36. Dzikite, C., Y. Nsubuga and V. Nkonki, 2017. Lecturers competencies in Information and Communication Technology (ICT) for effective implementation of ICT-integrated teaching and learning in textiles and clothing degree programmes. Int. J. Educ. Sci., 17: 61-68.
37. Cazco, G.H.O., M.C. Gonzalez, F.M. Abad and M.A. Mercado-Varela, 2016. Digital competence of the university faculty: Case study of the Universidad Nacional de Chimborazo. Proceedings of the 4th International Conference on Technological Ecosystems for Enhancing Multiculturality, November 2-4, 2016, ACM, Salamanca, Spain, pp: 147-154.
38. Casillas, S., M. Cabezas, M.S. Ibarra and G. Rodriguez, 2017. Evaluation of digital competence from a gender perspective. Proceedings of the 5th International Conference on Technological Ecosystems for Enhancing Multiculturality, October 18-20, 2017, ACM, Spain, pp: 1-5.
39. Huffman, A.H., J. Whetten and W.H. Huffman, 2013. Using technology in higher education: The influence of gender roles on technology self-efficacy. Comput. Human Behav., 29: 1779-1786.
40. Majama, K., 2019. African women face a widening technology gap. Association for Progressive Communications, Johannesburg, South Africa.

41. Howlett, G. and Z. Waemusa, 2018. Digital native/digital immigrant divide: EFL teachers mobile device experiences and practice. Contemp. Educ. Technol., 9: 374-389.
42. Cabero, J. and J. Barroso, 2016. ICT teacher training: A view of the TPACK model. Cultura Educ., 28: 633-663.
43. Gudmundsdottir, G.B. and O.E. Hatlevik, 2018. Newly qualified teachers professional digital competence: Implications for teacher education. Eur. J. Teach. Educ., 41: 214-231.
44. Guillen-Gamez, F.D., A. Lugones, M.J. Mayorga-Fernandez and S. Wang, 2019. ICT use by pre-service foreign languages teachers according to gender, age and motivation. Cogent Educ., Vol. 6, 10.1080/2331186X .2019.1574693
45. DerKaay, C.D.V. and W.H. Young, 2012. Age-related differences in technology usage among community college faculty. Community Coll. J. Res. Pract., 36: 570-579.