INFLUENCE OF LECTURERS' ACADEMIC QUALIFICATIONS ON THEIR AWARENESS, READINESS AND UTILISATION OF ARTIFICIAL INTELLIGENCE IN EDUCATION AT A NIGERIAN UNIVERSITY

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Abstract
The study assessed the influence of lecturers' academic qualifications on their awareness, readiness and the utilisation of Artificial Intelligence for education in a Nigerian university. The study adopted a descriptive research of a survey type. A sample of 271 lecturers were selected using Proportionate Stratified Randomly Sampling Technique. A researcher-designed structured questionnaire validated by four experts were used for data collection. The questionnaire was tested for reliability using Cronbach Alpha Correlation Formula and the data obtained were analysed and reliability coefficients of 0.87, 0.80, and 0.82 were obtained for awareness, readiness and utilisation of Artificial Intelligence respectively. One-way ANOVA reported that $F_{(2,268)}= 0.48, p > 0.05$ showing no significant difference in the mean response of lecturers with different academic qualifications on their awareness of Artificial Intelligence for education in a Nigerian University. Also,

$F_{(2,268)}= 0.76$, $p >0.05$ implying no significant difference in the mean response of university lecturers with different academic qualifications on their readiness to use Artificial Intelligence for education in a Nigerian University. $F_{(2,268)} = 5.09$, $p<0.05$ indicating a significant difference in the mean response of university lecturers with different academic qualification on utilisation of Artificial Intelligence for education in favour of lecturers with Bachelor Degree. In light of the findings, it was recommended among others that special training and workshops should be organised for lecturers especially those with masters and PhD degrees to increase their level of awareness and utilisation of AI.

Keywords: Academic qualifications, awareness, readiness, utilisation, artificial intelligence

Introduction

AI provides the tools for developing a more accurate and detailed picture of how the human mind can be imitated by machines. The present progressive rate of AI has already impacted the profound nature of services within education (Popenici & Kerr, 2017). With the effective integration of AI in education, the role of lecturers is modified to a facilitator and guider of knowledge for ensuring unlimited access to knowledge, lifelong learning, the inclusion of digital learning in school curricula and enhancing 21st-century learning. AI is already being used in universities. For instance, Deakin University in Australia already applied IBM's supercomputer Watson as an emerging form of artificial intelligence and a solution to provide students with advice (Fahimirad & Kotamjani, 2018). This innovation significantly impact the quality of services rendered and time spent teaching students within the university.

AI can assists the teacher to personalise his/her lessons to meet learners' different learning abilities by creating digital content. For example, with Gooru teachers can create personalised learning opportunities for students, organize course content into comprehensible units of the study and assess students for immediate feedback assessments with access to immediate feedback (Agarwal, 2018). AI is a powerful tool for delivering high standard lectures, as it involves the use of technology in the management of classes. This was buttressed by Pokrivcakova (2019) who noted that AI powered tools help to create a sophisticated educational environment where learning can be more personalised, teaching more flexible, and management more inclusive. For example, Duolingo, a language learning platform based on Artificial Intelligence and voice recognition, is used by thousands of lecturers to liven up their language classes (Karsenti, 2019).

The lecturer as a facilitator, guides the learner to play an active role in understanding the contents of instruction (Masaazi, 2015). AI has been integrated

into education, in the form of intelligent books, smart devices, web browsers, education applications, learning platforms and tutoring systems. With the utilisation of Artificial Intelligence provides learners with authentic relevant information, enable them to manage their learning activities as well as explore relevant learning materials, thereby making them inquisitive leaners, rather than passive recipients of knowledge and information from only the lecturer. Thus, enhancing self-learning and active participation in the learning process.

In this digital age, Artificial Intelligence plays a significant role in the educational success of lecturers and learners by offering them innovative ways of teaching and learning, assessing students' feedback, acquiring skills, communicating, sharing, creating, grading, analysing and interacting with learning materials. Artificial Intelligence when effectively integrated and used optimally in the teaching and learning process enhances the development of digital literacy and informed citizenship in the digital age. The work of a lecturer is demanding, especially in Nigerian institutions with insufficient technologies and large class size with learners of different learning abilities. AI devices, applications and software can be used by lecturers as very effective supporting tools (Pokrivcakova, 2019).

Despite the benefits of utilising AI to improve the quality and effectiveness of teaching and learning process, assessment and professional development of lecturers, most lecturers have not adequately explored the resources available to them. Barriers may exist in the utilisation of AI on the part of the lecturers since they are the utilizers of these technologies for education. For lecturers to optimally use AI, they need to be aware of its utilisation and impact on their academic activities and be proficient in its usage. The knowledge of lecturers on the utilisation of Artificial Intelligence in education is fundamental to enable lecturers to successfully utilise it for their academic activities. The investigation of the readiness of lecturers to utilise AI technologies is paramount since they are the key players in the successful utilisation of Artificial Intelligence in education. Lecturers' readiness can be determined by their willingness to adopt AI in education and willingness to acquire ICT skills and knowledge since Artificial Intelligence is a result of innovation and advancement in ICT (Reuben and Kabilan, 2024). Hence, lecturers need to be aware and ready to use Artificial Intelligence for education. Therefore, it is essential to consider lecturers' academic qualifications on their awareness, readiness and utilisation of AI for education irrespective of their academic qualification.

Academic qualification refers to the certification that lecturers have acquired. Lecturers' qualifications can also be referred to as academic and professional certification that a lecturer obtains as a result of undergoing a course, training or programme. In Nigeria, university lecturers' qualification ranges from Bachelor's

degree to Master's degree and then Doctor of Philosophy (Ph.D). The Bachelor's degree is the first and lowest academic degree conferred by a university and the least qualification requirement for Graduate Assistants in Nigeria. A Master's degree is a postgraduate degree that aims to enhance students' mastery of a particular profession, academic field or discipline. Doctor of Philosophy (Ph.D) is also a postgraduate degree and the highest academic degree conferred by a university to any candidates.

Literature Review

Vandermoere *et al.* (2010) investigated the morality of attitudes toward Nanotechnology in Germany. Using survey research design, the quota sampling method was used to select 750 people who participated in the study employing a web survey between February and April 2009. The result of the study showed 498(66.4%) of the respondents were not aware of nanotechnology. The study also revealed that participants with a higher education qualification were familiar with nanotechnology compared to those with lower education qualifications.

Liang *et al.* (2013) surveyed in-service preschool teachers' technological pedagogical content knowledge. The study revealed that teachers with longer years of teaching experience perceived that they were less knowledgeable about technology and ICT integration. This study also examined the role of the preschool teachers' education qualifications in their responses to the knowledge of Technology according to the TPACK survey. It was found that teachers with relatively higher education qualifications in the study have more sophisticated knowledge of using technology and ICT integration in their instructional environment.

Agbatogun (2013) investigated the interactive digital technologies use in Southwest universities, Nigerian. Descriptive survey research design was employed for the study. A sample size of 492 lecturers was randomly selected. The questionnaire used was adapted after a review of literature on the use of technology for instructional purposes. The study revealed that the utilisation of emerging digital technologies was 46%, which means that most faculty members were yet to utilise emerging digital technologies for teaching and learning. The study also revealed that faculty members with higher academic qualifications did not utilise emerging digital technologies in their classroom instructional process.

Gombe *et al.* (2016) examined the use of Information and Communication Technology (ICT) by lecturers in North-Western, Nigeria. A sample of 350 lecturers was randomly selected through a multi-stage cluster technique. The data was collected through an online survey of adopted ICT perceive ease of use

Questionnaire (IPEUQ). The data was analysed and the finding revealed that there was no significant difference in ICT usage based on qualification.

Ohiwerei and Onimawo (2016) conducted a study to ascertain the level of utilisation of Information and Communication Technology (ICT) equipment in the teaching of Business Education courses in universities in the South-South geo-political zone of Nigeria. The study utilised a descriptive survey research design. A sample of 117 Business Education lecturers from seven federal and state universities was randomly selected. The instrument for data collection was a questionnaire. Findings revealed that there was a significant difference in the level of utilisation of ICT equipment for Business Education based on their teaching experience. The result also revealed that lecturers with lesser years of experience had a higher proportion of utilisation of ICT equipment more than those with longer years of experience. Finding also revealed that there was no significant difference in the utilisation of ICT facilities used for teaching Business Education courses based on lecturers' qualifications.

Khan (2016) investigated the awareness of Information and Communication Technology (ICT) among senior secondary school teachers of Aligarh District Uttar Pradesh, India. Random sampling technique was used to select 100 senior secondary school teachers from six different schools. A structured questionnaire was used for data collection. The result of the study showed that there was a significant difference between male and female teachers' awareness of the uses of ICT in their daily teaching and learning process in favour of the female. Findings from the study also revealed that there was a significant difference between the graduate and post-graduate senior secondary school teachers towards their ICT awareness in favour of graduate teachers.

Oyelekan *et al*. (2017) investigated science teachers' utilisation of innovative strategies for teaching senior school in Ilorin, Nigeria. A sample of 256 science teachers was selected using stratified random sampling technique. Data were obtained using a researcher-designed questionnaire. The result of the findings revealed that there was no significant difference in the level of utilisation of the innovative teaching strategies based on science teachers' qualifications. Findings emanating from the study also revealed that there was no significant difference in the level of utilisation of the innovative teaching strategies based on science teachers' experience.

Ipek *et al*. (2020) investigated the awareness, exposure, and knowledge levels of science teachers about Nanoscience and Nanotechnology in Turkey. Descriptive methods were used in the study and a questionnaire was used for data collection. A convenience sampling technique was used to select 624 science teachers from three

secondary schools. Findings emanating from the study revealed that there was a significant difference between male and female awareness of Nanoscience and Nanotechnology in favour of male teachers. Findings also revealed that there was a significant difference in the awareness of teachers based on their academic qualifications in favour of teachers with PhD. Findings from the study also showed that there was no significant difference in the awareness level of teachers based on their teaching experience.

Studies have revealed that lecturers with higher academic qualifications are aware of modern technologies compared to those with lower academic qualifications (Ipek *et al.*, 2020; Khursid & Zahur, 2013; Nannim *et al.,* 2018; Vandermoere *et al.,* 2010). Study by Agbatogun (2013) revealed that lecturers with higher academic qualifications do not utilise emerging digital technologies in their classroom instructional process compared to their counterparts. Study by Badri *et al.* (2014) revealed that teachers with lower academic qualifications have higher technology readiness than those with higher academic qualifications. Based on the aforementioned findings, this study seeks to investigate the influence of lecturers' academic qualifications on their awareness, readiness and utilisation of AI for education.

Statement of the Problem

Despite the numerous benefits associated with the utilisation of AI in education, lecturers in Nigerian universities are yet to fully explore AI in their educational activities, which may be due to inadequate awareness of the intelligent devices, applications (apps) and software systems available in education (Nannim *et al*., 2018; Onah *et al*., 2020). Studies have revealed that lecturers with higher academic qualifications are aware of modern technologies compared to those with lower academic qualifications (Ipek et al., 2020; Khursid & Zahur, 2013; Liang et al., 2013; Nannim et al., 2018). Study by Agbatogun (2013) revealed that lecturers with higher academic qualifications do not utilise emerging digital technologies in their classroom instructional process compared to their counterparts. Study by Badri et al. (2014) revealed that teachers with lower academic qualifications have higher technology readiness than those with higher academic qualifications. In order to fill in this gap, this study seeks to investigate the influence of lecturers' academic qualifications on their awareness, readiness and utilisation of Artificial Intelligence for education.

Objectives of the Study

The purpose of this study is to assess the influence of lecturers' academic qualifications on their awareness, readiness and utilisation of Artificial Intelligence for education. The objectives of the study were to:

i. Determine the difference between university lecturers level of awareness of Artificial Intelligence for education based on their academic qualifications.
ii. Ascertain the difference between university lecturers' readiness to use Artificial Intelligence for education based on their academic qualifications.
iii. Find out the difference between university lecturers utilisation of Artificial Intelligence for education based on their academic qualifications.

Research Questions
The following research questions were raised and answered in this study:
iv. what is the difference between university lecturers level of awareness of Artificial Intelligence for education based on their academic qualifications?
v. what is the difference between university lecturers' readiness to use Artificial Intelligence for education based on their academic qualifications?
vi. what is the difference between university lecturers utilisation of Artificial Intelligence for education based on their academic qualifications?

Research Hypotheses
The following null hypotheses were formulated and tested at 0.05 level of significance:
HO_1: There is no significant difference in the mean response of university lecturers with different academic qualifications on their awareness of Artificial Intelligence for education.
HO_2: There is no significant difference in the mean response of university lecturers with different academic qualifications on their readiness to use Artificial Intelligence for education;
HO_3: There is no significant difference in the mean response of university lecturers with different academic qualifications on utilisation of Artificial Intelligence for education.

Research Methodology
The research design adopted for this study is descriptive survey research design. Rahi (2017) defined descriptive survey design as a popular research design in social sciences that is associated with a deductive research approach where strategic information are collected using a pre-designed questionnaire. Since questionnaires were used to collect the needed and valuable data from the respondents (university lecturers) on their awareness, readiness and utilisation of artificial intelligence for education in a Nigerian University; therefore, quantitative descriptive survey research type was appropriate for this study.
The Nigerian University selected for this study is the Federal University of Technology (FUT) Minna. The population of this study comprised all the 903 lecturers in FUT Minna, Niger State (Information Technology Service, 2021). The target population of the study comprised all 903 lecturers across the nine schools in

FUT Minna Niger State. The size sample of this study is 271 lecturers. Proportionate Stratified Random Sampling Technique was used to select 30% of lecturers across the nine schools of FUT, Minna in order to get a sample size of 274 according to Gill *et al.* (2010). Hence, 271 lecturers were considered appropriate for the study. Table 1 shows the sample distribution of lecturers in Federal University of Technology, Minna across the nine schools.

Table 1

Proportionate sample size of lecturers from each school in FUT, Minna

S/N	Schools	Male	Female	Sample Size
1	School of Agriculture and Agricultural Technology	34	9	43
2	School of Electrical Engineering and Technology	24	2	26
3	School of Environmental Technology	36	5	41
4	School of Information and Communication Technology	19	7	26
5	School of Life Sciences	15	10	25
6	School of Physical Sciences	34	6	40
7	School of Science and Technology Education	14	4	18
8	School of Infrastructure, Process Engineering and Technology	36	4	40
9	School of Entrepreneurship and Management Technology	9	3	12
	Total	221	50	271

A structured questionnaire developed by the researcher was used for data collection. The questionnaire titled University Lecturers' Awareness, Readiness and Utilisation of Artificial Intelligence for Education (ULARUAIE) consists of 90 items. The questionnaire was designed under four sections: namely, Section A, Section B, Section C, and Section D. Section A was based on the demographic data of the respondents, Section B was titled Lecturers' Awareness of Artificial Intelligence for Education, consisting of 30 items designed to collect data on lecturers' awareness of Artificial Intelligence for education, on four rating scales of FA (Fully Aware = 4), A (Aware = 3), NFA (Not Fully Aware = 2) and NA (Not Aware = 1). Section C was titled Lecturers' Readiness to use Artificial Intelligence for Education containing 30 items designed to collect data on lecturers' readiness to use Artificial Intelligence for education, on four points ratings of FR (Fully Ready = 4), R (Ready = 3), NFR (Not Fully Ready = 2) and NR (Not Ready = 1) and Section D was titled Lecturers' Utilisation of Artificial Intelligence for

Education consisting of 30 items designed to collect data on lecturers' utilisation of Artificial Intelligence for education, on four points rating scales of OU (Often Used = 4), U (Used = 3), RU (Rarely Used = 2), NU (Never Used = 1).

The questionnaire was validated by four experts, two lecturers from the Department of Educational Technology, a lecturer from the Department of Science Education Department and a Guidance Counsellor all in the Federal University of Technology Minna. Pilot test was conducted at the University of Abuja on 45 lecturers. The data were subjected to statistical analysis using Cronbach Alpha Correlation Formula, to determine the internal consistency of the instrument. According to Namdeo and Rout (2016), internal consistency describes the extent to which all the items in an instrument measure the same concept and the inter-relationship of the items in an instrument. The reliability coefficients of the different constructs of the instrument obtained are 0.87, 0.80, and 0.82 for Awareness, Readiness and Utilisation of Artificial Intelligence respectively. To determine the reliability of an instrument, Cronbach alpha scores greater than 0.70 are considered as indicative of acceptable reliability (Taber, 2016). Hence, the instrument was considered reliable to collect the needed data.

Research question one: What is the difference between university lecturers' level of awareness of Artificial Intelligence for education based on their academic qualifications?

Mean and Standard Deviation were used to answer research question one. Table 2 presents the mean and standard deviation of university lecturers' level of awareness of Artificial Intelligence for education based on their academic qualifications. From the table, lecturers with Bachelor Degree had a mean of 68.67 with standard deviation of 13.65, lecturers with Master Degree had a mean of 65.20 with SD of 11.59, while lecturers with PhD had a mean of 63.93 with standard deviation of 12.82. This shows that lecturers with Bachelor Degree had the highest mean rating than those with Master Degree and PhD Degree respectively on the awareness of AI for education in a Nigerian University. Mean and Standard Deviation on the difference between university lecturers' level of awareness of Artificial Intelligence for education based on their academic qualifications is presented in Table 2.

Table 2
Mean and Standard Deviation of university lecturers' level of awareness of Artificial Intelligence for education based on their academic qualification

Academic Qualifications	N	$\bar{X}$	Std. Deviation
Bachelor Degree	3	68.67	13.65
Master Degree	86	65.20	11.59
PhD	182	63.93	12.82

Research question two: What is the difference between university lecturers' readiness to use Artificial Intelligence for education based on their academic qualifications?

Mean and Standard Deviation were used to answer research question two. Table 3 presents the mean and standard deviation of university lecturers' readiness to use Artificial Intelligence for education based on their academic qualifications in a Nigerian University. From the table, lecturers with Bachelor Degree had a mean of 86.33 with standard deviation of 5.03, lecturers with Master Degree had a mean of 78.40 with SD of 11.04, while lecturers with PhD had a mean of 77.87 with standard deviation of 12.52. This shows that lecturers with Bachelor Degree had the highest mean rating than those with Master Degree and PhD Degree respectively on their readiness to use AI in a Nigerian university. Table 3 presents the Mean and Standard Deviation of university lecturers' readiness to use Artificial Intelligence for education based on their academic qualifications

Table 3
Mean and Standard Deviation of university lecturers' readiness to use Artificial Intelligence for education based on their academic qualifications

Academic Qualifications	N	$\bar{X}$	Std. Deviation
Bachelor Degree	3	86.33	5.03
Master Degree	86	78.40	11.04
PhD	182	77.87	12.52

Research question three: What is the difference between university lecturers' utilisation of Artificial Intelligence for education based on their academic qualifications?

Mean and Standard Deviation were used to answer research question three. Table 4 presents the mean and standard deviation of university lecturers' utilisation of Artificial Intelligence for education based on their academic qualifications. From the table, lecturers with Bachelor Degree had a mean of 58.67 with standard deviation of 21.36, lecturers with Master Degree had a mean of 49.70 with SD of 17.25, while lecturers with PhD had a mean of 44.43 with standard deviation of 12.59. This shows that lecturers with Bachelor Degree had the highest mean rating than those with Master Degree and PhD Degree respectively on the utilisation of AI in a Nigerian University. Table 4 presents the Mean and Standard Deviation of university lecturers' utilisation of Artificial Intelligence for education based on their academic qualifications.

Table 4
Mean and Standard Deviation of university lecturers' utilisation of Artificial Intelligence for education based on their academic qualifications

Academic Qualifications	N	$\bar{X}$	Std. Deviation
Bachelor Degree	3	58.67	21.36
Master Degree	86	49.70	17.25
PhD	182	44.43	12.59

Hypothesis one: There is no significant difference in the mean response of university lecturers with different academic qualifications on their awareness of Artificial Intelligence for education.

In testing hypothesis one, the mean response of university lecturers with different academic qualifications on their awareness of Artificial Intelligence for education was analysed using One-way ANOVA as presented in Table 5. Table 5 shows the One-way ANOVA on university lecturers with different academic qualifications on their awareness of Artificial Intelligence. From the table, $F_{(2,268)} = 0.48$, p = 0.62. The p-value is greater than the level of significance, hence hypothesis four was not rejected. This shows that there is no significant difference in the mean response of lecturers with different academic qualifications on their awareness of Artificial Intelligence for education in a Nigerian University.

Table 5
One-way ANOVA of Lecturers' Qualification on Awareness of Artificial Intelligence

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.	NS: Not
Between Groups	148.80	2	74.40			
				0.48	0.62 ns	
Within Groups	41555.52	268	155.06			
Total	41704.317	270				

Significant at 0.05 (p>0.05)

Hypothesis two: There is no significant difference in the mean response of university lecturers with different academic qualifications on their readiness to use Artificial Intelligence for education.

In testing hypothesis two, the mean response of university lecturers with different academic qualifications on their readiness to use Artificial Intelligence for education was analysed using One-way ANOVA as presented in Table 6. Table 6 shows the One-way ANOVA on university lecturers with different academic

qualifications on their readiness to use Artificial Intelligence. From the table, $F_{(2,268)}$= 0.76, p = 0.47. The p-value is greater than the level of significance, hence hypothesis five was not rejected. This revealed that there is no significant difference in the mean response of university lecturers with different academic qualifications on their readiness to use Artificial Intelligence for education in a Nigerian University.

Table 6

One-way ANOVA of Lecturers' Qualification on Readiness of Artificial Intelligence

Sources of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	219.90	2	109.96		
				0.76	0.47 [ns]
Within Groups	38767.32	268	144.65		
Total	38987.22	270			

NS: Not Significant at 0.05

Hypothesis three: There is no significant difference in the mean response of university lecturers with different academic qualifications on the utilisation of Artificial Intelligence for education.

In testing hypothesis three, the mean response of university lecturers with different academic qualifications on their utilisation of Artificial Intelligence for education was analysed using One-way ANOVA as presented in Table 7. Table 7 shows the One-way ANOVA on university lecturers with different academic qualifications on their utilisation of Artificial Intelligence for education. From the table, $F_{(2,268)}$ = 5.09, p = 0.01. The p-value is less than the level of significance, hence hypothesis six was rejected. This indicates that there is a significant difference in the mean response of university lecturers with different academic qualifications on utilisation of Artificial Intelligence for education in a Nigerian University.

Table 7

One-way ANOVA of Lecturers' Qualification on Utilisation of Artificial Intelligence

Sources of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2084.88	2	1042.44		
				5.09	0.01*
Within Groups	54909.52	268	204.89		
Total	56994.399	270			

*: Significant at 0.05 (p<0.05)

A Scheffe post hoc analysis was done to identify the direction of the difference among the academic qualifications as presented in Table 8. From the Scheffe post hoc analysis, multiple comparisons on university lecturers' utilisation of Artificial Intelligence for education based on their academic qualifications revealed that there is no significant difference between lecturers with Bachelor qualification and those with Master and PhD qualification. However, a significant difference was observed between lecturers with Master qualification and those with PhD qualification.

Table 8
Scheffe post hoc analysis on university lecturers' utilisation of Artificial Intelligence based on their different academic qualifications

(I) Academic Qualification	(J) Academic Qualification	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Bachelor Degree	Master Degree	8.969	8.407	.638	-11.23	29.17
	PhD	14.233	8.332	.243	-5.79	34.25
Master Degree	Bachelor Degree	-8.969	8.407	.638	-29.17	11.23
	PhD	5.264*	1.873	.016	.76	9.76
PhD	Bachelor Degree	-14.233	8.332	.243	-34.25	5.79
	Master Degree	-5.264*	1.873	.016	-9.76	-.76

Discussion of Findings

Finding emanating from this study also revealed that lecturers were aware of AI for education irrespective of their academic qualifications in a Nigerian university. This finding agrees with the finding of Khan (2016) who reported that graduate teachers were aware of the uses of ICT in their daily teaching and learning process than the post-graduate teachers. Similarly, the finding also disagrees with that of Vandermoere *et al.* (2010) who reported that participants with higher education qualification were familiar with nanotechnology compared to those of lower education qualification. Similarly, Liang *et al.* (2013) study found out that teachers with relatively higher education qualifications in the study have more sophisticated knowledge of using technology and ICT integration in their instructional environment. In addition, Nannim *et al.* (2018) result showed that lecturers with PhD qualification had higher awareness of the available ICT facilities compared to those with lower qualifications. Furthermore, Ipek *et al.* (2020) revealed that there

was significant difference in the awareness of teachers about Nanoscience and Nanotechnology based on their academic qualification in favour of teachers with PhDs.

Another finding revealed that lecturers were ready to use AI for education irrespective of their academic qualifications in a Nigerian university. This could be attributed to the eagerness of lecturers to explore technologies that would lessen their demanding tasks. However, the finding disagrees with the finding of Badri *et al.* (2014) who discovered that teachers with college degrees had the highest level of technology readiness, than those with doctorate, master degree and pre-college diploma respectively. Lecturers with Bachelor Degree utilised AI for education than those with Master and PhD Degree in a Nigerian university. This could be credited to the fact that lecturers with lower qualifications utilised AI in order to be professionally relevant despite their qualification.

Also, the finding contradicts that of Gombe *et al.* (2016) who found out that there was no significant difference on ICT usage based on qualification. Similarly, Ohiwerei and Onimawo (2016) result revealed that there was no significant difference in the utilisation of ICT facilities used for teaching Business Education courses based on lecturers' qualification in universities. Also, Oyelekan *et al*. (2017) finding revealed that there was no significant difference in the level of utilisation of innovative teaching strategies based on science teachers' qualifications. Yushau and Nannim (2020) revealed that there was no significant difference in lecturers' level of utilization of ICT facilities for teaching purposes based on qualification.

Conclusion

Based on the findings of this study, it was concluded that lecturers are aware of the use of AI for educational developments.

Recommendations
Based on the findings of this study, the following recommendations are made:
i.   lecturers should be encouraged to use AI to ease their demanding work and tasks. Therefore, enabling environment with adequate facilities that will enable them acquire adequate knowledge and skills on the use of AI should be provided by University management;
ii. conferences and seminars should be organised for lecturers to heighten their readiness to use AI.
iii. young lecturers belong to X-generation and ICT savvy unlike those that are digital immigrant. Therefore, special training and workshops should be organised for lecturers especially those with masters and PhD degrees to increase their level of awareness and utilisation of AI.

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