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EXTENT OF INTEGRATION OF ICT INTO PEDAGOGICAL PRACTICES OF UNIVERSITY TEACHERS IN PUBLIC UNIVERSITIES IN AKWA IBOM STATE

By

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Abstract

This study assessed the extent of integration of ICT into the pedagogic practices of lecturers in Nigerian Universities in Akwa Ibom State. The study adopted a descriptive survey research design. A sample of 333 University lecturers which comprised 177 male and 156 female lecturers was selected for the study. The study adopted a multi-staged sampling procedure. The instrument for data collection was a 25-item questionnaire titled: Lecturers' Use of ICT device Questionnaire (LUICTDQ). The copies of the instrument were validated by three research experts one from Educational Technology and Library Science from the University of Uyo, one from Curriculum studies, and one from Measurement and Evaluation, in College of Education, Michael Okpara University of Agriculture, Umudike, Abia State. Cronbach Alpha statistics was used to determine the internal consistency of the instrument which yielded 0.87 coefficient. Mean and standard deviation were used to answer the five research questions raised for the study while t-test statistic was used to test the five null hypotheses that guided the study at 0.05 level of significance. The findings showed among others that ICT such as computer, internet, mobile phones and educational software package were integrated to a low extent into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State, while social media was integrated to a very low extent. Based on the findings, the study therefore recommended among others that Government and school administrations should provide adequate and regular in-service training to lecturers on effective ways of using computer in instructional deliveries.

Keywords: ICT, Integration, Pedagogical Practices, University Teachers

Introduction/Background

During the last three decades, the world has witnessed remarkable developments in information and communications technology (ICT), particularly advancement in computer and internet technology with its effects widely felt in all aspect of the society (Umar & Maswan, 2017). This development has in the recent times revolutionized the information industry; making information management, access and dissemination processes much easier, faster and efficient by means of digital electronic technology. With this technology, time and distance has become no longer a barrier to communication, interaction and economic transactions between people, institutions and nations across the world. Information and communication technology (ICT) have had a major impact in the University context, in organization and in teaching and learning delivering. Teaching in tertiary institution nowadays has gone beyond the traditional method of teaching whereby a lecturer stands in front of students and disseminates information to them without adequate participation.

In this day and age, the role of technology in improving the lives of the people and enhancement of quality education cannot be underestimated. This is one of the reasons why Jung (2015) identified teaching as one of most challenging professions in our society. Furthermore, the rate of expansion in knowledge and the technological development around the world has also put male and female lecturers on their toes. All these have led to the development of modern pedagogical practices that will enable University lecturers meet up with the present reality even as the world is becoming a global Village. This underscores the use of information and communication technology devices in teaching and learning process. ICTs can play a number of roles in education. Betts (2018), outline the following; providing a catalyst for rethinking teaching practice; developing the kind of teachers and citizens required in an information society; improving educational outcomes and enhancing and improving the quality of teaching and learning. The potential impact of ICTs in education in general and Nigerian in particular, demonstrates the potential of technologies in addressing specific teaching and learning problems faced by Nigerian Universities.

Due to the potentially added values of ICT in education, all instructors should use ICT to support and enrich their teaching and learning activities, Education is unthinkable without the assistance of ICT as it is a tool for the empowerment of instructors towards more effective and efficient education delivery. ICT can be used as a tool for research, problem-solving, creativity and for teaching and learning (Akbulut *et al.*, 2017). Becta (2016) pointed out, that ICTs have

the potential to enhance teaching and learning through: enriching the course, improving delivery, extending methods of presenting information and offering new opportunities through the techniques that ICT make possible. Instructors should have the opportunity to disseminate good practices via the internet, access reliable facilities, resources and support on pedagogical issues and the latest curriculum developments (Seyoum, 2016). ICTs can overcome instructor isolation by connecting them to colleagues, curriculum experts, and the global instructor community.

The rapid shift towards the use of this technology has largely been responsible for the emergence of e-transactions between people and institutions in all aspects of human life; making the world a global village and technology driven. This has led to an ever increasing human interaction with the computer, internet and other ICT facilities (Teo, 2017). This trend of development has made the need for ICT literacy and competence a necessity in the emerging technology driven world (Herselman & Hay, 2015) thus, suggesting an association or correlation between individual personal success and occupational proficiency with ICT literacy and competence in any technology driven society (Teo, 2017).

Although, ICT is very crucial in teaching and learning, the ability to realize its full benefits still depends on the teacher (Effiong, 2015). This is because a lecturer is an individual who is trained in pedagogy and teaching areas of a particular subject to impart knowledge, skills, and attitudes to students in an institution. The use of ICT makes teaching and learning processes interactive and collaborative as instructors and learners are given opportunity to explore ideas and have complicated problems solved.

Besides, the challenge of ICT integration is as much at the centre of the conflict between old and new pedagogies as it is in terms of how educational values are alternately influenced by institutional imperatives for change and existing social contexts. Thus, the gap between older instructors, who embrace a global "wired" culture at home, is as significant as the cross-cultural clash between traditional educational practices and the imperative of progressive new theories of learning (Federal Ministry of Education, 2016).

In Nigerian Universities some instructors have never had an opportunity to use ICT resources for instructional purposes nor have received any training in this regard. Although some instructors have recently been exposed to ICT through furthering their studies at higher learning institutions, it appears that the vast majority of male and female lecturers are unable to successfully integrate ICT into pedagogy process. Further, ICT is available in many

Universities, but there is limited evidence that it has been integrated into the pedagogy process (Hare, 2017). Instructors integrating ICT into their pedagogies select appropriate learning activities, tools and resources to: (a) motivate and engage (b) personalized learning (c) engage with diversity to support inclusiveness (d) develop ICT literacy (e) establish communities of learning, and (f) assess progress and evaluate teaching. The effectiveness of integrating ICT into pedagogies/teaching-learning depends on high levels of interactivity amongst and between students and instructors, and between students and the technologies they use.

According to Jung (2015), described a well-designed instructor training program is essential to meet the demand of today's instructors who want to learn how to use ICT effectively for their teaching. This study is to find out how technology has affected the pedagogical practices of Universities lecturers. Jung (2015) says that merely learning ICT skills is not enough but using the ICT skills to improve the teaching and learning is the key for pedagogy-technology integration. But the question is how we can combine these two. Thus, an innovative instructor will use images, play video of real time situation or even animate objects to explain critical concepts. Practicing lecturers must use whatever knowledge they gained from ICT integration courses. This can be attained by incorporating these practices within the classroom and avoid the risk of losing the acquired knowledge. The study seeks to find out the extent which the use of ICTs is integrated into the pedagogical practices of lecturers. Information and Communication Technology (ICT) generally relates to those technologies that are used for accessing, gathering, manipulating and presenting or communicating information. The technologies could include hardware; software applications; and connectivity.

Due to rapid technological development in the 21st century, governments of various nations around the world have made substantial investments in information technology to support teaching (Alenezi, 2019). Considering ICTs as an important tool for achieving excellence in teaching and learning process (Atuahene, 2019), it can be argued that stakeholders efforts was geared toward enhancing quality education. It was evident that Nigeria as a developing country has been making considerable effort to transforming their schools with the use of ICTs as a pedagogical tool. Among other efforts made by Nigerian government were through the leadership of School Net which started since 2006, School Net Nigeria continues to deploy and use ICTs in teaching and learning (Adomi, 2010). Nigerian National Policy on Education (FRN, 2013) stressed the urgent need to integrate ICT into teacher education in recognition of its role in advancing knowledge and skills necessary for the present world or work.

The implication of this development provides the rationale and a strong base for establishing the necessity of ICT integration in educational practices and pedagogy should the education industry strive to meet up with its responsibility of equipping the learner with what it takes to fit into the larger society (Okam, 2020). However, the success of ICT integration in any educational system is to a large extent dependent on its teachers for there is no education system that can rise above the quality of its teachers. The teacher is therefore, a crucial factor in any educational system whose competence and efficiency has far reaching implications in the attainment of educational objectives and goals (Pelgrum, 2017). Thus, the level of ICT literacy and competence of the lecturers is crucial in determining the success of ICT integration in academic environment (Rosnaini & Mohd, *et al;* 2018). However, lecturer's competence towards the use and application of ICT in their educational practices is dependent on teacher education and training on one hand; and, teacher educators on the other hand. Workshops and stand-alone course on technology integration for in-service teachers may not be enough in ensuring effective use of technology in pedagogical practices (Mishra & Koehler, 2006).

However, ensuring effective technology integration in teacher education would require a careful planning and transformational changes in curriculum content and pedagogical practices (Hammond & Munfra, 2017) in addition to having access to ICT facilities. Even through technology integration in educational practices is much appreciated and considered a welcome development by most teacher educators (Baron & Goldman, 2014, Ong, 2016), it is yet to be fully integrated in teacher education curriculum and pedagogical practices in Nigeria (Onasanya, *et al;*2018).

Statement of Purpose

The study was guided by the following specific objectives

1. To find out the extent to which the use of computer is integrated into the pedagogic practices of lecturers for instructional purpose;
2. To find out the extent to which the use of internet is integrated into the pedagogic practices of lecturers for instructional purpose;
3. To examine the extent to which the use of mobile phones is integrated into the pedagogic practices of lecturers for instructional purpose;

Research Questions

The following research questions were raise to guide the study:

1. To what extent is the use of computer integrated into the pedagogic practices of lecturers for instructional purposes?
2. To what extent is the use of internet integrated into the pedagogic practices of lecturers for instructional purposes?
3. To what extent is the use of mobile phones integrated into the pedagogic practices of lecturers for instructional purposes?

Hypotheses

$H0_1$: There is no significant difference between the mean ratings of male and female lecturers on the extent of integration of the use of computer into the pedagogic practices of lecturers for instructional purpose.

$H0_2$: There is no significant difference between the mean ratings of male and female lecturers on the extent of integration of the use of internet into the pedagogic practices of lecturers for instructional purpose.

$H0_3$: There is no significant difference between the mean ratings of male and female lecturers on the extent of integration of the use of mobile phones into the pedagogic practices of lecturers for instructional purpose.

Design of the Study

The descriptive survey design was used for this study is descriptive (opinion) survey. According to Udoh & Joseph (2016), descriptive survey design typically employs questionnaires and interviews in order to determine the opinions, attitudes, preferences and perceptions of peoples of interest to the researcher.

Area of the Study

The research was carried out in Akwa Ibom State, Nigeria. The state lies between the latitude 4^0.32' and 5^0.33'N and longitude 7^0.35' and 8^0.25'E. It is bounded in the East by Cross River State, on the North by Abia State and the South by the Atlantic Ocean.

Population of the Study

The population for this study was 2,000 University lecturers drawn from two Public Universities in Akwa Ibom State of Nigeria. The population of lecturers in the study area is distributed across the institutions as follows: University of Uyo: 1,327 University lecturers, and Akwa Ibom State University: 673 University lecturers.

Sample and Sampling Techniques

The sample size for the study is 333 University lecturers were selected for the study. Taro Yamane (1967) provided a simplified formula to calculate sample sizes. This formula was used to determine the sample size required, indicates that 95% confidence level and p = 0.5 are assumed, the sample was drawn through a multi-stage sampling approach. From each of the two Public Universities, University lecturers were selected via sample random sampling using balloting without replacement.

Instrument for Data Collection

The instrument for data collection was a questionnaire titled: *Lecturers' Use of ICT Device Questionnaire (LUICTDQ)* developed by the researcher. Each of the sections has items that aimed to establish lecturers integration with the use of ICT devices such as; internet, computer, mobile phones, social media, educational software packages. It was also designed on a four-points rating scale or four-scale.

Validation of the Instrument

The instrument Lecturers' Use of ICT Device Questionnaire (LUICTDQ) was subjected to validation by three research experts one drawn from Department of Educational Technology and Library Science from the University of Uyo, one drawn from Curriculum Studies, and one from Measurement and Evaluation in Science Education, Michael Okpara University of Agriculture, Umudike, Abia State. The following were submitted to the validators: the topic, purpose of the study, research questions, research hypotheses and the research instrument (Questionnaire). They were requested to assess the content coverage; the suitability of the items, language used, and item arrangement in logical sequence. The expert comments and input were incorporated and used for modification of the final copy of the instrument.

Reliability of Instrument

The Cronbach's Alpha reliability test was used to determine the reliability of the instrument. The reliability index value of 0.87 was obtained for *Lecturers' Use of ICT Device Questionnaire (LUICTDQ).* This is ideal for large data to check primarily the internal consistency within a single test.

Data Analysis

Data collected were analyzed with mean and standard deviation to answer the research questions, while t-test statistic was used to test the null hypotheses that guided the study at 0.05 level of significance. In order to arrive at the decision rule, the probability value was compared with the 0.05 alpha value. When the Probability (P) value is greater than the alpha value, the null hypothesis would not be rejected, whereas the null hypothesis would be rejected when the Probability (P) value is less than the alpha value.

Results

The results of the analyses were presented in the tables and as follow:

Research Question 1

To what extent is computer integrated into the pedagogic practices of lecturers for instructional purposes?

Table 4.1: Mean Responses of male and female Lecturers on the extent Computer is integrated into the pedagogic practices of lecturers for instructional purposes (N=316)

S/N	Integration of Computer into the pedagogic practices of lecturers	Male			Female		
		X	SD	Remark	X	SD	Remark
1	I have used, stored and retrieved documents on computer as instructional aids	1.65	0.88	LE	1.61	0.73	LE
2	I have used computer to enhance my teaching	1.67	0.79	LE	1.62	0.88	LE
3	Stored and retrieved teaching documents in the computer helps me to add value to my teaching practice.	1.66	0.70	LE	1.60	0.83	LE

4	I do install computer programmes so as to help me teach well	1.70	0.74	LE	1.68	0.70	LE
5	I have secured some computer components and hardware that could improve my teaching.	1.67	0.61	LE	1.66	0.75	LE
	Cluster mean	**1.67**	**0.74**	**LE**	**1.63**	**0.78**	**LE**

L.E= Low Extent,

The results in Table 4.1 show the mean rating of male and female lecturers on the extent the use of computer is integrated into the pedagogic practices of lecturers for instructional purposes. The results show that all the items (1-5) recorded mean ratings for male and female lecturers which ranged between 1.60-1.70 and fall within the real limit of number range of 1.50-2.49 indicating low extent mean responses. The cluster mean of 1.67 and 1.63 for male and female lecturers respectively which equally fall within the real limit of number range of 1.50 and 2.49 indicated that the respondents agreed that computer is integrated to a low extent into the pedagogic practices of lecturers for instructional purposes. The cluster standard deviation of 0.74 and 0.78 for male and female lecturers respectively showed that their mean responses were not far from the mean and from each other.

Hypothesis 1

There is no significant difference between the mean ratings of male and female lecturers on extent of integration of computer into the pedagogic practices of lecturers for instructional purposes

Table 4.2: t-test Analysis of mean ratings of male and female lecturers on extent of Integration of Computer into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State

Status	N	X	SD	Df	t-cal.	P-value	Remark
Male	168	1.67	0.74				
				314	0.33	1.11	NS
Female	148	1.63	0.78				

Data in Table 4.2 reveal a Probability (P) value of 1.11 which is greater than the alpha value of 0.05. Since the P-value is greater than 0.05 alpha level, the hypothesis of no significant difference was not rejected. Therefore, there is no significant difference between the mean rating of male and female lecturers on extent of integration of computer into the pedagogic practices of lecturers for instructional purposes.

Research Question 2

To what extent is the use of internet integrated into the pedagogic practices of lecturers for instructional purposes?

Table 4.3: Mean Responses of male and female Lecturers on the extent Internet is integrated into the pedagogic practices of lecturers for instructional purposes (N=316)

S/N	Integration of internet into the pedagogic practices of lecturers	Male X	Male SD	Male Remark	Female X	Female SD	Female Remark
6.	I do send and access electronic mails	2.62	0.73	HE	2.57	0.68	HE
7.	I surf the internet to get more instructional materials	1.78	0.80	LE	1.69	0.77	LE
8.	I log into some websites that will furnish me with necessary information on how to improve my teaching	1.46	0.77	VL E	1.44	0.78	VLE
9.	I have transfer protocol on the internet	1.39	0.83	VLE	1.35	0.81	VLE
10.	I download files using computer and then use such document in teaching	1.41	0.62	VLE	1.38	0.68	VLE
	Cluster Mean	**1.73**	**0.75**	**VLE**	**1.69**	**0.74**	VL E

V.L.E= Very Low Extent, L.E= Low Extent, H.E= High Extent

The results in Table 4.3 reveal the mean rating of male and female lecturers on the extent internet is integrated into the pedagogic practices of lecturers for instructional purposes. The results show that all the items except items 6 and 7 had mean ratings for male and female lecturers which ranged between 1.35-1.48 that fall within the real limit of number range of 1.00-1.49 indicating very low extent mean responses. Items 6 and 7 had mean responses that fall within the real limit of numbers range of 2.50-3.49 and 1.50-2.49 indicating high extent and low extent mean responses respectively. The cluster mean ratings of 1.73 and 1.67 for male and female lecturers respectively which equally fall within the real limit of number range of 1.50 and 2.49 and standard deviation of 0.75 and 0.74 indicated that the respondents agreed that internet is integrated to a low extent into the pedagogic practices of lecturers for instructional purposes.

Hypothesis 2

There is no significant difference between the mean rating of male and female lecturers on extent of integration of internet into the pedagogic practices of lecturers for instructional purposes.

Table 4.4: t-test Analysis of mean ratings of male and female lecturers on extent of integration of Internet into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State

Status	N	X	SD	Df	t-cal.	P-value	Remark
Male	168	1.73	0.75				
				314	0.36	1.03	NS
Female	148	1.69	0.74				

Results in Table 4.4 reveal a Probability (P) value of 1.03 which is greater than the alpha value of 0.05. Since the P-value is greater than 0.05 alpha level, the hypothesis of no significant difference was not rejected. Therefore, there is no significant difference between the mean ratings of male and female lecturers on extent of integration of internet into the pedagogic practices of lecturers for instructional purposes.

Research Question 3

To what extent is mobile phones integrated into the pedagogic practices of lecturers for instructional purposes?

Table 4.5: Mean Responses of male and female Lecturers on the extent Mobile Phones is integrated into the pedagogic practices of lecturers for instructional purposes (N=316)

		Male			Female		
S/N	**Integration of Mobile phones into the pedagogic practices of lecturers**	**X**	**SD**	**Remark**	**X**	**SD**	**Remark**
11.	I use online dictionaries on my handset to get definitions for my class	1.75	0.78	LE	1.66	0.74	LE
12.	I have access to enhancement materials to supplement the textbook from my handset	1.36	0.83	VLE	1.43	0.88	VLE
13.	I search for information online on how to improve my teaching from my phone	1.78	0.80	L E	1.69	0.76	LE
14.	I access and download learning materials directly from my phone.	1.67	0.74	LE	1.61	0.80	LE
15.	I read news, books and articles to get information for my classes online from my handset	1.73	0.77	LE	1.69	0.67	LE
	Cluster mean	**1.66**	**0.78**	**LE**	**1.62**	**0.77**	**LE**

V.L.E= Very Low Extent, L.E= Low Extent

The results in Table 4.5 show that the mean rating of male and female lecturers on the extent mobile phones is integrated into the pedagogic practices of lecturers for instructional purposes. The results show that all the items except item 12 had mean ratings for male and female lecturers which ranged between 1.61-1.78 and fall within the real limit of number range of 1.50-2.49 indicating low extent mean responses. Item 12 had mean responses of 1.36 and 1.43 for male and female lecturers which fall within the real limit of numbers range of 1.00-1.49 indicating very low extent mean responses. The cluster mean ratings of 1.66 and 1.62 for male and female lecturers respectively which equally fall within the real limit of number range of 1.50 and 2.49 indicating that the respondents agreed that mobile phones is integrated to a low extent into the pedagogic practices of lecturers for instructional purposes.

Hypothesis 3

There is no significant difference between the mean rating of male and female lecturers on extent of integration of mobile phones into the pedagogic practices of lecturers for instructional purposes.

Table 4.6: t-test Analysis of mean ratings of male and female lecturers on extent of integration of Mobile Phones into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State

Status	N	X	SD	Df	t-cal.	P-value	Remark
Male	168	1.66	0.78				
				314	0.33	1.39	NS
Female	148	1.62	0.77				

Data in Table 4.6 indicated a Probability (P) value of 1.39 which is greater than the alpha value of 0.05. Since the P-value is greater than 0.05 alpha level, the hypothesis of no significant difference was not rejected. Therefore, there is no significant difference between the mean ratings of male and female lecturers on extent of integration of the use of mobile phones into the pedagogic practices of lecturers for instructional purposes.

Summary of the Major Findings

1. The use of computer is integrated to a low extent into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State. However, there was no significant difference between the mean ratings of male and female lecturers on extent of integration of the use of computer into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State.
2. The use of internet is integrated to a low extent into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State. However, there was no significant difference between the mean ratings of male and female lecturers on extent of integration of the use of internet into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State.
3. The use of mobile phones is integrated to a low extent into the pedagogic practices of lecturers for instructional purposes. However, there was no significant difference between the mean ratings of male and female lecturers on extent of integration of the use of mobile phones into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State.

Discussion of Findings

The results in Table 4.1 revealed that the use of computer is integrated to a low extent into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State. The results specifically showed that lecturers agreed that the use of computer in the form of storage and retrieval of teaching documents, programme installation and the securing of important documents among others were observed to a low extent in teaching and learning processes. The results further showed that there was no significant difference between the mean ratings of male and female lecturers on extent of integration of the use of computer into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State. This implied that both the male and female lecturers did not differ in their opinion that the integration of computer into the pedagogical practices is to a low extent. In other words, lecturers have not fully integrated the use of computer in their pedagogical practices. The result agreed with Brown (2019) who in his previous study found out that the use of computer in teaching and learning in schools was not significant.

The findings equally aligned with Akbulut *et al;* (2017) who lamented that irrespective of the potential benefits of the use of computer in teaching and learning, most teachers in the schools do not use computer in their teaching since they lack the requisite skills to use them in teaching. The result corroborated Akpan and Itighise (2019) who warned that poor use of computer by teachers in teaching has affected not only the quality but the quantity of learning in the schools. According to the results from Raji (2014) in his study on the utilization of Computer for instructions in Electronic technology which showed among others that though there were many ways through which computer could be used in teaching, the extent they use it in teaching is very low.

It was found from the study that the use of internet is integrated to a low extent into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State. The results implied that the respondents agreed that there was low integration of internet in the teaching processes. Specifically, they agreed that to a low extent, they surf the internet to get more instructional materials, log into some websites that will furnish them information on how to improve teaching as well as on how to transfer protocol on the internet. The results further showed that, there was no significant difference between the mean ratings of male and female lecturers on extent of integration of the use of internet into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State. This implies that both the male and female

lecturers agreed that the integration of internet in the pedagogic practices were to a low extent. The results agreed with Kabilan (2014) who in his study on the availability and use of Computer and internet for teaching effectiveness which showed among others that though the use of internet makes teaching very effective, there was poor usage of internet among teachers in instructional deliveries. According to that those that use Crippen (2015), few of the teachers that use internet in their teaching processes do that primarily for gathering lesson plans. In a related studies by Kamba (2019), Okute and Agomuo (2015), and Asogwa (2011) in their respective studies found that there was significant relationship between the use of Internet and instructional effectiveness though they lamented that its usage in instructional delivery was very low. The result corroborated with Chime (2013) who maintained the use of internet in teaching and learning in schools is still very low due to many factors ranging from poor skills, lack of computer and other necessary infrastructure as well as administrative bottlenecks.

The results revealed that the use of mobile phones is integrated to a low extent into the pedagogic practices of lecturers for instructional purposes. The results implied that lecturers to a low extent use mobile phones in their pedagogic practices. The results specifically showed that lecturers agreed among others that, they to a low extent use online dictionaries on their mobile phones to get information, have access to enhancement materials to supplement the textbook and as well to read news, books and articles to get information. The results further showed that there was no significant difference between the mean ratings of male and female lecturers on the extent integration of the use of mobile phones into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State. This means that the respondents irrespective of their gender agreed that the use of mobile phone was to a low extent integrated into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State. The results supported Ovbiagele (2016) who in his previous study found a significant relationship between the use of ICT such as mobile phones and teaching effectiveness of lecturers in colleges of education and universities though they do not make effective use of their mobile phone for education or academic purposes but for social purposes. Similarly, the findings agreed with Ferry (2012) who his opinion noted that though modern mobile phones could be used to help instructors to access web-based contents, ‘remix it’ and ‘share it’ and well as collaborate with others for effective teaching , he lamented those benefits appeared hard to be achieved due to their poor level of usage for educational purposes.

Conclusion

This study assessed the extent of the integration of the use of ICT in pedagogic practices of lecturers in Akwa Ibom State, Nigeria. Based on the analysis carried out and the results of the study, it could be concluded that ICT devices such as Computers, Internet, Mobile phones were integrated to a low extent into the pedagogic practices of lecturers for instructional purposes in Akwa Ibom State while Social media was integrated to a very low extent.

Recommendations

Based on the findings and conclusions of the study, the following recommendations were made.

1. Government and school authority should provide adequate and regular training to lecturers on effective ways of using computer in instructional deliveries.
2. Government and University management should subsidize the cost of internet services to make it affordable for lecturers to use in instructional deliveries.
3. For University lecturers to effectively integrate ICT in their pedagogical practices, the pre-service teacher training program must be grounded to adequately prepare the teachers while on training for this emerging challenge.
4. Different network providers as well as other Non-Governmental Organizations (NGOs) should as part of their corporate responsibility should subsidize the cost of procuring mobile phones to enable every lecturer have access and use them for instructional deliveries.
5. Curriculum experts and researchers in education should identify and recommend to University lecturers the curriculum contents and the particular social media required to teach each of those contents.

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