ICTs and LIBRARIES: A BASIC TEXT

Edited by

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The views expressed in the chapters of this book are those of the authors and not of the editor nor publisher.

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Chapter Twenty One

Appraising the level of competence, awareness and readiness of students in using ICT for learning in a distance learning environment

Philomina A. Mamudu

Summary

In Nigeria and some other countries of the world, improving students' ICT competency and awareness has become a pedagogical issue. Accordingly, education on ICT competency and awareness is becoming popular in institutions of learning. However, determining a student's ICT readiness, awareness and competency level is germane to the success of teaching and learning using ICT tools. Consequently, this study has developed tools for measuring the level of students' ICT competency, awareness and readiness in learning. This research is necessary because using ICT for instruction has gained remarkable popularity in recent times. Nigeria is not left out in this euphoria of using ICT for instruction. The major focus of this paper is to investigate the level of awareness, readiness and competencies for the use of ICT for instruction by Faculty of Education, University of Ibadan distance learning students. Distance learning programmes and the use of ICT for its facilitation and enhancement is not a new phenomenon in Nigeria, hence the need to measure the level of compliance of students in order to aid the institution under study to make policies that would help in achieving the goals of using ICT for instruction and learning. A questionnaire was randomly distributed among the distance learning students of the faculty and results of the study revealed that majority of the respondents have little or no knowledge of application of ICT to learning. The study also revealed that a great percentage of students were not exposed to the usage of ICT and as such limited in its use in learning. It is recommended that the Curriculum should include the use of ICT as a course from the first year to the final year of study, the course content should include advance skills as from the second year; and it should be made compulsory to enhance the students' ICT skills.

Keywords: Distance learning, ICT (information and communication technology) and learning

Introduction

The promotion and sustenance of open and distance education (ODL) in recent times is one of the tactically increasing strategies being adopted by governments of nations around the world in order to facilitate sustainable and stable economic development at different levels of the society. According UNESCO (2004), open and distance learning has grown into an important global strategy in resolving problems of access to education, with the emergence of distance learning programmes, some people who cannot afford to be full time students in tertiary institutions because they are engaged in full time jobs but still desire more education for career advancement. Howell, Williams & Lindsay (2003) further averred that distance education programs while growing in importance has led many countries of the world to develop strategies that will aid in encouraging the primary effort at providing education to people that do not have the opportunity to attend conventional tertiary institutions. The major strategy to having a stress free and highly fulfilling and productive experience by both teachers and learner is incorporating top notch ICT platform that aids easy communication. The use of ICT in promoting education is not a new phenomenon in some parts of the world. However, it is gradually gaining widespread recognition in Nigeria as it is being used by some higher institutions to promote open and distance learning education (ODL) as well as lifelong learning. Several terms have been used interchangeably to refer to "learning via ICT" and they include e-learning, computer-based learning, web-based learning, virtual learning, hybrid learning and ICT education. All of these terms seem to blend with the meaning of ICT as a tool for teaching and learning.

The use of ICT no doubt is attaining a strong drive in Nigerian tertiary institutions. The Internet is used by all the members of the faculty including students to search for information. The ability of faculty members and students to use ICT effectively for learning, teaching and research will enhance learning and promote academic excellence. (Nwezeh, C. M. T, 2010). Distance learning students in the University of Ibadan combine both face to face classroom instructions with ICT. Most of their assignments are given through their emails and they are expected to download them and also upload them after completion.

To perform these tasks, ICT skills are needed to be able to cope with studentship as a

DLC (distance learning) student in the University of Ibadan. Are the students aware of this mode of learning? And how competent are these students in the use of ICT for learning? This research seeks to answer these and other questions in a bid to proffering solutions to some lingering problems with the full implementation of accommodative policies for the use of ICT for learning in a distance learning environment.

Objectives of the study

The main objective of the study is to appraise the level of competence, awareness and readiness of students in using information, communication technology (ICT) for learning in a distance learning environment. The specific objectives of the study are to:

i   Identify the level of competence in the use of Information, Communication Technology in learning among the students.

ii Identify the level of awareness and readiness for the use of information and communication technology in learning among the students.

iii Determine if the level of study of the student is significantly related to the level of competence in the use of Information and communication and technology for learning.

iv Determine if there is significant relationship between the level of study of the students and their level of readiness and awareness of the use of information and communication technology for learning.

Research questions

The following research questions are intended to guide the study:

i   What is the level of competence in the use of information and communication technology in learning among the students?

ii What is the level of awareness and readiness for the use of information and communication technology in learning among the students?

Hypotheses

The following null hypotheses were generated to guide the study:

Ho1: The level of study of the student is significantly related to the level of competence in the use of Information, Communication and Technology for learning.

Ho2: There is no significant relationship between the level of study of the students and their level of readiness and awareness of the use of Information, Communication and Technology for learning.

Literature review

The emergence of distance education in Nigeria precedes external examinations put in place by Universities of London, Cambridge and Oxford. This provided learning opportunities for Nigerians wishing to acquire western education. Owoeye (2004) stated that since the colonial period, correspondence colleges from United Kingdom have provided intermediate and advanced level training to a number of qualified Nigerians via correspondence courses. Distance education in Nigeria was recognized in 1959 just before independence. The Ashby commission was inaugurated to work on the establishment of distance learning in Nigeria and the report of the commission recommended the establishment of University of Lagos with a department to handle correspondence courses. University of Ibadan, Ahmadu Bello University and some other Universities in the country later started providing extension services.

Adegbite and Oyekanmi (2010) reported that the University of Ibadan inaugurated distance education in 1988. This was done to meet the demands of the ever-growing applicants for tertiary education through the distance learning programme. The Universal Primary Eduaction which was lauched in 1976 gave further recognition to the distance learning mode of education as a very potent and viable means of promoting teacher education. The National Teachers Institute (NTI) was later established by the Federal Government of Nigeria in 1976 in a bid to upgrade the skills of unqualified teachers. The establishment of an Open University in Abuja was however pruned and replaced with University of Abuja, a dual-mode institution that was mandated to provide

and give access to distance learning activities. The Centre for Distance Learning and Continuing Education (CDLCE) of the University was charged with this responsibility.

The commitment of the Federal Government of Nigeria to distance education later led to the establishment of the National Open University of Nigeria (NOUN) in 2002. As of today, the National Universities Commission has approved the several universities as dual mode institutions. They combine both the conventional and distance education programmes to serves the needs of their communities. In some of these institutions' students come for residential programmes when the regular students are on vacation. From the foregoing, it can be inferred that from an uncoordinated beginning, distance education has become fully integrated into the Nigerian higher education system.

Distance education, also known as open or distance learning is a style of education where there is a separation between the teachers and learners, both of them communicate via Information Technology networks and learning is very flexible. The physical gap between the teacher and learner is bridged by the use of emails, video conferencing through the computer etc. Distance learning has created educational opportunities that are needed by everyone to learn despite not physically present, people can work and learn and further acquire skills needed for career advancement without undue interference of having to manage a career and schooling at the same time. UNESCO's strategic objectives in education have been to improve the quality of education through the diversification of contents and methods by promoting experimentation, innovation, diffusion and sharing of information. (UNESCO, 2002, 2005). It has been discovered that advances in Information and Computer Technologies (ICT) has transformed tertiary education in several enterprising methods. These methods include: expanding access to post-secondary instruction, boosting the accessibility to educational resources, facilitating fruitful interaction among teachers and learners, rebuilding the educational system and as such better equip and prepare students for the information age (Albirini, 2006).

It has been seen from recent research findings that learning has gone beyond the classroom, student and teacher situation. The 21st century youth wants to learn in an informal way. Educators and teachers alike are therefore looking for ways of satisfying this fast-changing generation of learners. To strengthen the fact that ICT has changed the way people learn, Shih and Mills (2007) averred that we live in the age of ICT, and learning is only one of the areas which have been affected, while Nwosu and Ogbomo (2012[a]) asserted that the use of ICT in education by teachers and students is now essential because it has changed the way people communicate and it is gradually becoming a part of man's everyday life. The learning process has been revolutionized by the concepts of mobile teaching and learning.

This is further buttressed by Fozdar and Kumar (2007) who observed that ICT has the potential to bring students and their teachers together thereby helping tremendously in overcoming the physical distances between teachers and students, enabling the flexible delivery of education at a distance, anyplace, anytime. This has brought about immense support in the way open distance learning (ODL) activities are discharged.

Nwosu and Ugbomo (2012[b]) further asserted that, the field of education has no doubt been affected by the massive influence of ICT worldwide and particularly in developed countries. Oduma (2013) posits that ICT plays a major role in education and it has impacted on the quality of research and teaching in the academic world. It has made teaching and research a lot easier and flexible.

The application of ICT is not only accentuated in corporative business and industrial sector, it is and has become an integral part of education at all levels (Allen & Seaman 2011) and electronic learning, which is recounted as the use of information communication technology to enhance/amplify learning, research and teaching in education, has become increasingly important in tertiary education (Adedeji, 2010).

Nigeria as a nation is not left out in this rapid upstream of the entire intellectual worldwide community in the usage of ICT for learning and educational purposes. This fact was accentuated by Dotimi and Hamilton-Ekeke (2013) who found out in a study on the use of

electronic resources by University students in Nigeria that students are no constricted to print materials in their quest for information. Networking among students and teachers is expanding in order to facilitate exchange of ideas and improve opportunities for connecting schools to the world as learning is expanding beyond the classroom. Agboola (2010) further posits that students are no longer restricted to print materials to solve their information needs because ICT has transformed the way and manner in which the global community uses information.

Etim (2004) in Okon (2005) stated that technological advancement has changed the traditional information domain to an electronic domain where online services/database make information transition easier.

However, in spite of the innumerable benefits accruable to the usage of ICT in learning, studies have shown that the level of awareness and competence of students in the usage of ICT in Nigerian Universities is quite low compared to other countries. This assertion is corroborated by the findings of Ojo and Akande (2005) in their study of internet usage by Nigerian students; it was revealed that even though electronic resources are being used by the students, the level of use was discovered to be low when compared with the level of use in developed countries. In the same vein, Omotayo (2006) found out that undergraduates in the study carried out did not go through any formal ICT training, they learnt how to use the internet from their friends informally and majority of them used the internet only for e-mail and this is because they lacked the skill to use it effectively for other purposes.

Methods

As the study specifically focuses on the critical appraisal of the level of competence, awareness, and readiness in using Information Communication Technology for learning, a descriptive survey research design is adopted for the study. This research design entails collection of relevant data about the problem under investigation, with the aim of describing the nature of existing conditions or identifying the standards against which existing conditions can be compared or determining the relationships that exist between the identified variables in the study. The study was carried out using the

students of the Faculty of Education, University of Ibadan who are on the distance learning programme. A structured questionnaire titled Level of Competence, awareness and readiness in using Information Communication Technology for learning was designed for the study.

Copies of the questionnaire were administered to one hundred students in each level of study, making a total of five hundred copies administered.

The population of this study was the distance learning students of the Faculty of Education, University of Ibadan. The total number of registered distance learning students in the Faculty of Education is 1958 (one thousand, nine hundred and fifty-eight) with a breakdown of 257 in 100 level, 446 in 200 level, 313 in 300 level, 325 in 400 level and 617 in 500 level respectively. 500 copies of questionnaire were randomly distributed and the response rate shows 500 (100%). This was achieved because the research assistants waited to collect the filled questionnaire. There was a close monitor of the questionnaires as they were being filled to avoid errors. This made it possible to get back all the questionnaires in good state. The questionnaire was administered to students of varying levels ranging from 100 to 500 levels, about 100 respondents per level.

Copies of the questionnaire were administered to all the students' respondents in the various lecture halls. The questionnaire was distributed with the help of ten research assistants who are also on the distance learning programme. Two assistants were assigned for each level of study. They students were assured that their responses will only be used for academic purposes and it will be treated with utmost confidentiality, and that there are also no positive or negative answers. Copies of the questionnaire that were missing after collection were re-administered to complete one hundred copies for each level of study. This was done to avoid bias.

Data collected for this study were analyzed using frequency distribution, simple percentages charts and tables,. Respondents were asked questions to investigate their demographic variables and the above stated research questions. The hypotheses raised to pilot the study were tested using *t*-test at a

significance level of 0.05. The results are presented as follows:

Table 1 shows the levels of study of the respondents. Respondents' profile with respect to academic level of study was investigated and the findings are presented in Table 1.

Table 1: Distribution of respondents by levels of study

Levels	Frequency	Percentage
100	100	20
200	100	20
300	100	20
400	100	20
500	100	20

Table 1 shows that the five levels of study are well represented in this study with all the levels of study having the same percentage 100 (20%) each. This is as a result of the fact that the questionnaires were carefully distributed and collected by research assistants for each level of study.

Research question 1: What is the level of competence in the use of information and communication technology in learning among the students?

The level of competence for the use of information and communication technology in learning among the students was investigated and the results presented as follows:

Table 2: The extent of computer literacy and competence in the use of ICT by students

Computer literacy and competence	Agree	%	Disagree	%	Total
You are computer literate	321	64.2	179	35.8	500
You can use Microsoft Word to type documents	234	46.8	266	53.2	500
You can use search engines such as Google, Google Scholar, Bing and the rest to search for information	345	69	155	31	500
You can operate a printer that is connected to the computer	148	29.6	352	70.4	500
You can use PowerPoint in preparing for seminars/assignments	41	8.2	459	91.8	500
You can check your e-mails on the internet	399	79.8	101	20.2	500
You can download your lecture notes, course materials and assignments from your e-mails and on the internet	212	42.4	288	57.6	500
You can upload and send your assignments via e-mail	173	34.6	327	65.4	500
You can use a scanner to scan images	82	16.4	418	83.6	500
You can use Microsoft Excel	64	12.8	436	87.2	500

Table 3: (Breakdown of response according to level of study). The extent of computer literacy and competence in the use of ICT by students

Q1	You are computer literate										
Agree	100L	200L	300L	400L	500L	Disagree	100L	200L	300L	400L	500L
321	30	45	73	80	93	179	70	55	27	20	7

Q2	You can use Microsoft Word to type documents										
Agree	100L	200L	300L	400L	500L	Disagree	100L	200L	300L	400L	500L
234	32	34	50	53	65	266	68	66	50	47	35

Q3	You can use search engines such as Google, Google Scholar, Bing and the rest to search for information										
Agree	100L	200L	300L	400L	500L	Disagree	100L	200L	300L	400L	500L
345	44	47	68	89	97	155	56	53	32	11	3

Q4	You can operate a printer that is connected to the computer										
Agree	100L	200L	300L	400L	500L	Disagree	100L	200L	300L	400L	500L
148	11	22	35	35	45	352	89	78	65	65	55

Q5	You can use PowerPoint in preparing for seminars/assignments										
Agree	100L	200L	300L	400L	500L	Disagree	100L	200L	300L	400L	500L
41	2	5	7	11	16	459	98	95	93	89	84

Q6	You can check your e-mails on the internet										
Agree	100L	200L	300L	400L	500L	Disagree	100L	200L	300L	400L	500L
399	78	78	75	81	87	101	22	22	25	19	13

Q7	You can download your lecture notes, course materials and assignments from your e-mails and on the internet										
Agree	100L	200L	300L	400L	500L	Disagree	100L	200L	300L	400L	500L
212	29	38	38	52	55	288	71	62	62	48	45

Q8	You can upload and send your assignments via e-mail										
Agree	100L	200L	300L	400L	500L	Disagree	100L	200L	300L	400L	500L
173	20	31	36	45	41	327	80	69	64	55	59

Q9	You can use a scanner to scan images										
Agree	100L	200L	300L	400L	500L	Disagree	100L	200L	300L	400L	500L
82	13	16	14	16	23	418	87	84	86	84	77

Q10	You can use Microsoft Excel										
Agree	100L	200L	300L	400L	500L	Disagree	100L	200L	300L	400L	500L
64	9	9	13	11	22	436	91	91	87	89	78

The table above shows the extent of computer literacy and competence in the use of ICT by students. The analysis shows that 321 students representing 64.2% students said that they were computer literate; while 179 students representing 35.8% students said they were not. 234 students representing 46.8% students said they can use Microsoft Word to type documents, while 266 students representing 53.2% students said they cannot. 345 students representing 69% students said they use search engines such as Google, Google Scholar, Bing and the rest to search for information, while 155 students representing 31% students said they cannot. 148 students representing 29.6% students said they can operate a printer that is connected to the computer, while 352 students representing 70.4% students said they cannot.

Similarly, 41 students representing 8.2% students said they can use PowerPoint in presenting seminars/assignments, while 459 students representing 91.8% students said they cannot. 399 students representing 79.8% students said they can check their e-mails on the internet, while 101students representing 20.2% students said they cannot. 399 students representing 79.8% students said they can download their lecture notes, course materials and assignments from their e-mails and or the internet, while 101 students representing 20.2% students said they cannot.

Also, 173 students representing 34.6% students said they can upload and send their assignments via e-mail, while 327 representing 65.4% students said they cannot. 82 students representing 16.4% students said they can use a scanner to scan images, while 418 students representing 83.6% students said they cannot. 64 students representing 12.8% students said they can use Microsoft Excel, while 436 students representing 87.2% students said they cannot.

Research question 2: What is the level of awareness and readiness for the use of information and communication technology in learning among the students?

Table 4: Level of awareness and readiness of students for the use of ICT in learning

Awareness and Readiness	Yes	%	No	%	Total
Have you been exposed to the use of ICT for learning before entering the university?	22	4.4	478	95.6	500
Do you know what it means to use ICT for learning?	167	33.4	333	66.6	500
Were you aware of the fact that your programme of study requires a high degree of computer literacy?	75	15	425	85	500
Have you ever enrolled in a computer school?	108	21.6	392	78.4	500
Are you able to cope with the trend of using ICT for learning?	134	26.8	366	73.2	500

Table 5: Breakdown of response according to level of study on level of awareness and readiness of students for the use of ICT in learning

Q1	Have you been exposed to the use of ICT before entering the University?										
Yes	100L	200L	300L	400L	500L	No	100L	200L	300L	400L	500L
22	2	2	6	5	7	478	98	98	94	95	93
Q2	Do you know what it means to use ICT for learning?										
Yes	100L	200L	300L	400L	500L	No	100L	200L	300L	400L	500L
167	20	33	31	41	42	333	80	67	69	59	58
Q3	Were you aware that your programme of study requires a high level of computer literacy?										
Yes	100L	200L	300L	400L	500L	No	100L	200L	300L	400L	500L
75	11	14	16	15	19	425	89	86	84	85	81
Q4	Were you once enrolled in a computer school?										
Yes	100L	200L	300L	400L	500L	No	100L	200L	300L	400L	500L
108	6	12	25	30	35	392	94	88	75	70	62
Q5	Are you able to cope with the trend of using ICT for learning?										
Yes	100L	200L	300L	400L	500L	No	100L	200L	300L	400L	500L
41	2	5	7	11	16	459	98	95	93	89	84

Table 4 shows level of awareness and readiness of students for the use of ICT for learning. The analysis shows that 22 students representing 4.4% students said they have been exposed to the use of ICT for learning before entering the university, while 478 students representing 95.6% students said they have not been exposed to ICT for learning. 167 students representing 33.4% students said they know what it means to use ICT for learning, while 333 students representing 66.6% students said they do not.

Similarly, 75 students representing 15% students said they were aware of the fact that their programme of study requires a high degree of computer literacy, while 425 students representing 85% students said they were not. 108 students representing 21.6% students said they were once enrolled in a computer school, while 392 students representing 78.4.% students said they have not. 134 students representing 26.8% students said they are able to cope with the trend of using ICT for learning, while 366 students representing 73.2% students said they are not.

This is further illustrated in the Figure 1 which shows the level of awareness and readiness for the use of Information, Communication Technology in learning among the students.
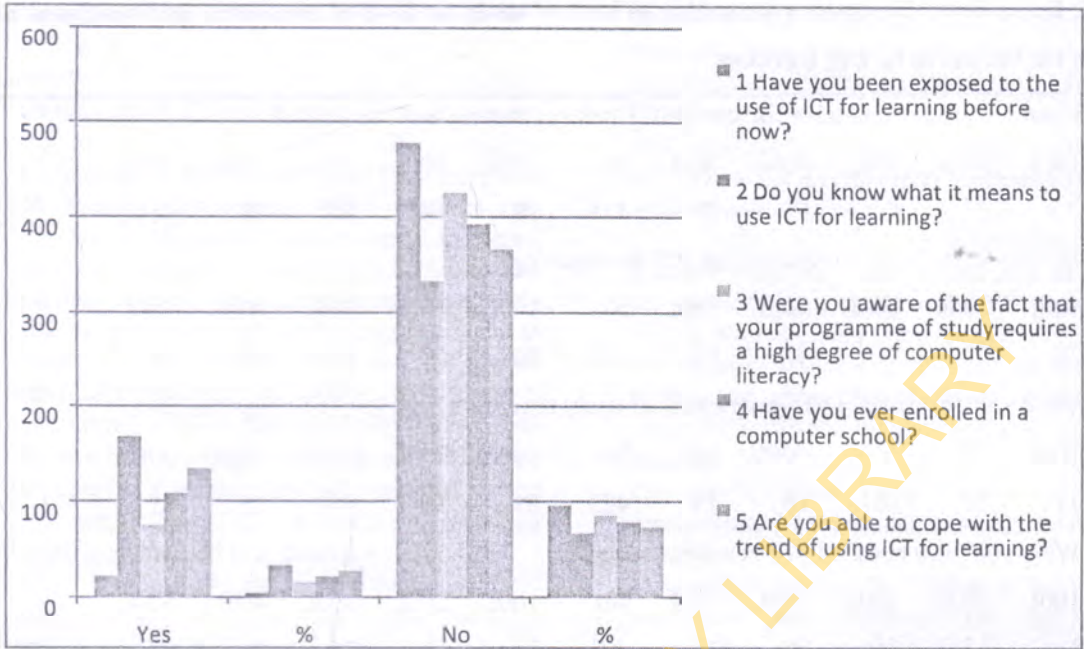
Figure 1: The level of awareness and readiness for the use of information and communication technology in learning among the students

Analysis of research hypothesis one

H0: The level of study of the student is significantly related to the level of competence in the use of information and communication technology for learning.

H1: The level of study of the student is not significantly related to the level of competence in the use of information and communication technology y for learning. This is properly examined in Table 5 through the usage of the t-test analysis tool.

Table 5: t-test as a measurement index of the relationship between the level of study of students and their competence in using ICT for learning

	Variable 1	Variable 2
Mean	201.9	298.1
Variance	15296.1	15296.1
Observations	10	10
Hypothesized Mean Difference	0	
Df	18	
t Stat	-1.73928	
P(T<=t) one-tail	0.049529	
t Critical one-tail	1.734064	
P(T<=t) two-tail	0.099058	
t Critical two-tail	2.100922	

P>0.05

We can deduce from Table 5 the the t-stat is less than the critical value therefore the null hypothesis is accepted. Hence, we can say that the level of study of the student is significantly related to the level of competence in the use of information and communication technology for learning.

Hypothesis two
H0: There is no significant relationship between the level of study of the students and their level of readiness and awareness of the use of

information and communication technology for learning.

H2: There is significant relationship between the level of study of the students and their level of readiness and awareness of the use of information and communication technology for learning.

This null and alternative hypotheses are resolved using t-test in Table 6.

Table 6: t-test as a measurement index of the relationship between the level of study of the students and their level of readiness and awareness of the use of ICT for learning

	Variable 1	Variable 2
Mean	101.2	398.8
Variance	3102.7	3102.7
Observations	5	5
Pooled Variance	3102.7	
Hypothesized Mean Difference	0	
Df	8	
t Stat	-8.44759	
P(T<=t) one-tail	1.47E-05	
t Critical one-tail	1.859548	
P(T<=t) two-tail	2.94E-05	
t Critical two-tail	2.306004	

$P>0.05$

The deductions from Table 6 are in the following order: the t-stat is less than the critical value (2-tailed). Thus, it is proper to accept the null hypothesis. This implies that is no significant relationship between the level of study of the students and their level of readiness and awareness of the use of information and communication technology for learning.

Discussion
Two research questions were posited to appraise the level of awareness, readiness and competence of students in using ICT for learning in a distance learning environment.
The first research question tested the level of competence of students in the use of information and communication technology in learning and it was observed that a large percentage of the

students were computer literate (64.5%) and as such conversant with the usage of ICTs in learning. This is against the findings of Resnick (2002) who identified that the factors militating against the acceptability of mobile learning by students and teachers is mass unawareness, low computer literacy level and cost in Nigerian secondary schools. Although a high percentage of students claim to be computer literate, the study shows that most of them do not know how to use the basic applications that can help them with their work. There is low knowledge of the use of Microsoft word, power point, excel etc.

The second research question is tested on the level of awareness and readiness of students in the use of ICT facilities in learning. The study revealed that a great percentage of students (95.6%) were not exposed to the usage of ICT before gaining admission into the

University, this shows that the curriculum in the secondary school needs to be revisited to make the use of ICT compulsory for the students so that they will have the prerequisite knowledge before gaining admission into the university. The findings are in line with the research of Hamilton-Ekeke (2011) who revealed in a study that apart from the fact that students are not using the internet for studying and doing research, ICT and internet facilities are not readily available for the use of students.

Conclusion

The overwhelming advantages in the usage of ICT in learning cannot be overemphasized. Hamilton-Ekeke and Mbachu (2015) averred that ICT is regarded by so many schools of thoughts and researchers to be the world's most powerful instrument for the development of quality teaching, learning, and research in the educational system around the world. However, students of the Faculty of Education, University of Ibadan, Ibadan, Oyo State, have not been carried along in this ever-changing monumental tool of transformation in education as shown in this research. The major findings of this study indicate that:

i. Most students did not have the prerequisite knowledge of the use of ICT for learning before gaining admission into the University.

ii. The study showed that most of the students are computer literate.

iii. Students however showed low level of competence in the use of ICT applications in their work.

iv. The level of study of the student is significantly related to the level of competence in the use of ICT for learning. This mean that as the students' progress in their stay in the University, their level of competence increases probably due to exposure and experience in their field of study.

v. The level of study of the student is not significantly related to their level of readiness and awareness of the use of ICT for learning.

The following are recommendations are made based on the findings of this study:

i. The curriculum should include the use of ICT as a course from the first year to the final year of study, the course content should include advance ICT skills as from the second year; and it should be made compulsory to enhance the students' ICT skills;

ii. Parents should encourage undergraduate students, by ensuring that they are equipped with a computer and or electronic gadgets that will aid in enhancing their skills and also assist them in meeting up and coping with the current trend of using ICT for learning;

iii. Government should ensure that the use ICT skills as a subject is included in the curriculum of secondary schools and it should be made compulsory as this will help them gain the necessary skills that is needed study in the University;

iv. Government and non-governmental organizations (NGOs) and the Parent Teacher Association (PTA) should show more philanthropic will to creating ICT learning facilities in primary and secondary schools;

v. The university should enroll students in compulsory online conferencing and study groups activities that will enable them communicate and exchange ideas with students all over the world. The compulsory enrollment is to serve as a check.

vi. The institution should create students university domiciled e-mail addresses; this should automatically upload all students' related information on the institution's website. All registrations and library request should be mandatorily done on the university website; this will make the students become more conversant with using these ICT facilities.

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