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MANAGING DIGITAL LITERACY FOR QUALITY ASSURANCE OF FEDERAL UNIVERSITIES IN NORTH CENTRAL NIGERIA

Abstract: The study investigated the relationship between lecturer's digital literacy and quality assurance of Federal Universities in the North Central Nigeria. A descriptive survey design of correlation type was adopted for the study. Population of seven Federal universities and 2658 academic staff were used for the study. Stratified Random sampling technique was used to sample 700 respondents from the institutions. Four research questions and four hypotheses were generated to guide the study. The instrument tagged Digital Literacy and Quality Assurance Questionnaire (DQAQ)" was used for data collection from the respondents. Test-re-test reliability was used to determine the reliability index of the study. The method was subjected to Spearman ranking order statisticsl. The reliability index of .78 showed that the was reliable for use . The data collected were subjected to statistical package of social sciences (SPSS) 2.50pt. Descriptive statistics like Mean and Standard Deviation and percentages was used to answer all the research questions raised. Pearson Product Moment Correlation Statistics was used to test hypotheses one to three while hypothesis four was tested using t-test statistics all at 0.05 significance level.

The findings reveale that low significant relationship existed between Lecturers' digital literacy utilization and quality assurance of Federal Universities in North central Nigeria and that of significant differences that existed between senior and junior cadre lecturers in digital usage and competences. Both recommendations and conclusion was made.

Keywords: Digital Literacy, Competencies, Quality Assurance Federal Universities and North Central Nigeria

1. Introduction

It is an undisputable fact that education is an instrument for a sustainable national development, socio-economic transformation and goal achievement of any nation. It should be noted that any nation that did not provide quality education to her citizens, such nation can never be ranked high among

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the developed nations of the world. The Federal Republic of Nigeria (2013) ranked Education sector higher than any other sectors for a sustainable socio-economic development. The Federal government of Nigeria, however equipped every level of educational system to achieve the expected national goals. However the goals of University level of Education is to provide high level skill man power needed to transform the available natural resources to a desirable destination. It should be noted that over the years, the goals of national Universities have not been achieved because the universities have not been meeting up with the globalization demands on digitalization, computerization and entrepreneurial skills acquisition. Ogundele Gyang and Sambo (2015) noted that most of the institutions depend on the traditional pedagogical approaches for transmitting teaching-learning process to the students; they adopt chalk-talk method, paper-pencil test, paper-pencil notes. The universities are not exposed to the use of computer or digitalization method during the teaching, community services, research conducts and record keeping. The lecturers have not been trained on the use of digital Education so as to be able to use power points, mobile phones, skypes, blended and virtual classrooms, e-learning strategies have not been effectively used for the open and distance learning system. The teachers-students classroom interactions depend on face-to-face interaction. Etejere and Ogundele (2008) described the use of Information Communication Technology as the effective tool for Administrative effectiveness. The authors therefore, stated that for global competitiveness of educational system in any country, quality of the education should be adequately assured. The authors however suggested that the educational planners should integrate digital literacy in to the academic programme of their system. The integration of the digital literacy will aid effective use of e-learning,

e-library, e-registration, e-examination, e-payment, e-transactions and effective use of electronic board for the teaching and learning processes. The digital literacy therefore become a vital tool for quality assurance in Nigerian tertiary institutions Akinubi (2012) observed that the integration of digitalized approach for enhancing quality Assurance in Nigerian education programme are confronted with the challenges of Lecturer's competencies, skills, altitudes and digital availability, utilization power and energy which affect the effectiveness of digitalized approach for enhancing quality assurance in digital literacy especially in federal universities in North Central Nigeria.

However, what prompted the researchers mind was whether the digital literacy facilities are available to the extent of usage to acquire digital literacy skills, the problems associated with the usage and the effectiveness towards achieving quality in the Nigeria Federal universities lecturers especially in North Central Nigeria.

2. Statement of the problem

Over the years the federal universities have not being achieving the predetermined goals, due to the fact that the universities pedagogical approaches adopted by the lecturers are outdated and not compatible with the global change and innovations. The problem to be investigated will be whether there are significant relationships among the lecturers' digital literacy skills and quality assurance of Federal universities in North Central Nigeria. The problem of investigations focused on the availability of digital facilities, the extent of usage and the effectiveness for enhancing quality assurance of Federal universities in North Central Nigeria based on the teaching, community service research publication and record keeping which are the indicators of quality education provided.

2.1. Aims and objectives of the study

The study aimed at investigating the relationship between lecturers' digital literacy and quality assurance of Federal universities in North Central Nigeria.

Specifically, the objectives of the study are to:

1. Examine the availability of facilities for lecturers' digital literacy skills in Federal universities in North Central Nigeria.
2. Find out the extent of the digital facilities usage for enhancing quality Assurance of Federal universities in North Central Nigeria.
3. Examine the extent of the usage for enhancing quality assurance of Federal universities in North Central Nigeria.
4. Find out if the of digital literacy competences differs among the senior and Junior lecturers in Federal universities in North Central Nigeria

2.2. Research questions

The following research questions will be raised to guide the study

1. To what extent are the digital literacy skill facilities available for the lecturers usage in Federal universities in North Central Nigeria?
2. To what are the available digital literacy skills put into use for enhancing quality Assurance of Federal universities in the North Central Nigeria?
3. To what extent do the digital literacy skills acquisitions differ between the senior and junior lecturers in Federal universities in North Central Nigeria?
4. What are the challenges confronting digital literacy usage in federal universities in north central Nigeria?

2.3. Hypotheses

The following hypotheses were formulated to guide the study

1. There is no significant relationship between lecturers' digital literacy and quality Assurance of Federal universities in the North Central Nigeria.
2. There is no significant relationship between lecturers digital literacy and teaching effectiveness in Federal universities in North Central Nigeria
3. There is no significant relationship between digital literacy and research publication in Federal universities in North Central Nigeria
4. .Ho4: There is no significant relationship between digital literacy usage and records keeping strategies in federal universities in north central Nigeria
5. There is no significant difference in digital literacy skills between senior and junior lecturers in Federal universities in North Central Nigeria

As such every junior staff need to go extra mile to receive training in the computer and become digital literate before being employed.

Also, based on the hypotheses formulated and tested at 0.05 significance level. All the hypothesis are rejected, it therefore shows that there are low significant relationship between the Digital literacy and quality assurance indicators in federal universities in north central Nigeria. The

indicators like quality teaching, quality research publication and record keeping in the Federal Universities in North Central Nigeria. Wuyep (2014) also stated that the availability and effective utilization of digital facilities is a threat to effective quality delivery and quality assurance in Nigerian educational system and want further to note that without effective utilization of the digital facilities in various institutions in Nigeria, the countries cannot be ranked high among other countries in other countries and be grossly affected.

2.4. Methodology

Research Questions

RQ1: To what extent do the lecturers' digital facilities available for use in Federal Universities in North Central Nigeria?

Table 1. Lectures' digital facilities availability for use in Federal Universities in North Central Nigeria

S/No	Facilities	Available %	Not Available %
1.	Computer board in the class room	40 5.7	660 94.3
2.	Interconnectivity in the school environment	98. 14	602. 86
3.	The blended classroom are in the various institution	72. 10 .3	628. 89.7
4.	Laptop distributed for the staff	217. 31	483. 69
5.	Most of experiments are done through experiment	100 14.3	600. 85.7
6.	There is constant use of e-mail for the assignment in schools	320. 45.7	380. 54.3
7.	The use of social media are merely for the academic purpose	360 51.4	340 48.6
8.	The transactions among the members of the staff and students are through electronic media	240 34.3	560 65.3
9.	The power point are used for research presentation at all levels in the universities	380 54.3	320 45.7
10.	CCTV are use to embrace security.	60. 8.6	640. 91.4

Table 1 above shows that the digital facilities and equipment are not available in the federal university especially in the North Central Nigeria. The implication is that the quality assurance and delivery is at stake

RQ2: to what extent do the digital literacy skills put into use for enhancing quality assurance among the staff of Federal universities in North Central Nigeria?

Table 2. Differences between level of digital literacy skills acquisition between the junior and senior lectures in Federal Universities in North Central Nigeria.

S/No	Statement	Xmean	Sd	Decision
11.	Both lecturers' and students are encourage in the use of computerize board dirg the teaching learning processes	15.70	2.20	Disagree
12.	e-examination and e-monitoring arfe used for the students evaluation	10.76	1.85	Disagreed
13.	The lecturers students are exposed to constant training in order to acquire basic digital literacy skills in the schools	12.55	3.43	Agreed
14.	The students are encouraged to use power points during the presentation of them	11.07	2.40	Disagreed

Table 2 also indicates that due to non-availability and low usage. It affects the quality assurance indicators like teaching research publications record keeping process at the university level.

RQ3: To what extent do digital literacy skills acquisition differ between junior and senior lecturers at the Federal Universities in North Central Nigeria?

Table 3. Differences between level of digital literacy skills acquisition between the junior and senior lectures in Federal Universities in North Central Nigeria.

S/No	Statement	Xmean	Sd	Decision
16.	The junior lecturers are exposed to digital training than the senior lecturers	18.66	2.38	Disagreed
17.	The junior lecturers provided with digital equipment for the performance of duties than the senior lectures.	13.22	3.22	Agreed
18.	More junior staff are exposed to training and retraining opportunities than the senior staff	12.32	2.58	Agreed
19.	The junior staff have more time to learn different digital skills during the working hours than the senior lecturers.	16.43	2.76	Agreed
20.	The junior staff are skillful in social median, cloud computing digital Database virtual collaboration sharing approach, etc which encourage the usage than the senior counterpart	13.72	2.63	Agreed

Table 3: shows that differences exist in the digital literacy skills between the senior and junior cadre lectures in the federal universities in North Central.

RQ4: what are the challenges confronting digital literacy usage in the Federal universities in the North Central Nigeria

Table 4. Challenges of digital literacy usage in the Federal Universities in the North Central Nigeria.

S/No	Statement	Xmean	Sd	Decision
21.	Innovation technology used in digitalization become difficult for the senior lectures	36.21	3.88	Agreed
22.	Political interferences in the management of the Nigerian institutions made the digital usage difficult	24.32	2.57	Agreed
23.	The issue of ethnical challenges made the use of digital technology difficult	20.44	2.82	Agreed
24.	Low technological know low made the use of digital skills difficult	18.66	2.96	Agreed
25.	Inflationary trends made the purchase of digital technology difficult	18.72	3..66	Agreed

Table 4 revealed that the digital literacy usage are confronted with series of challenge1s which later constitute threat to the achievement of quality delivery and assurance in the Federal Universities especially in the North Central Nigeria.

The following hypothesis were tested for the study

$H0_1$: There is no significant relationship between lecturers' digital literacy and quality assurance of federal universities in North Central Nigeria.

3. Hypotheses

Table 5. Digital Literacy and quality assurance of Federal universities in North Central Nigeria.

Variables	No	X	Sd	Df	Calculated r-value	Critical r-value	Decision HO_1
Lecturer digital literacy	700	38.66	20.11	699.	.27	.195	Rejected
Quality Assurance	700	32.36	14.73				

Table 1 shows that then calculated r-value of .27 is greater than the critical r-value of .195 at the degree of freedom of 699 and tested at 0.05 significance level however, the null hypothesis which stated that these is no significant relationship between digital literacy and quality assurance of federal universities is rejected. It shows that low significant relationship between the digital literacy skills and Quality Assurance.

Ho_2: There is no 10 significant relationship between lecturers digital literacy and quality teaching in Federal Universities in North Central Nigeria

Table 6. Lectures digital Literacy and quality teaching in Federal Universities

Variables	No	X	Sd	Df	Calculate r-value	Critical r-value	Decision
Lecturer's digital literacy	700	38.66	20.11	699	.24	.197	HO_2
Quality teaching	700	20.44	18.33				

Table 6 shows that the calculated r-value of .224 is greater than the critical r-value of .197 at the degree of freedom of 699 and tested at .05 significance level. Hence the null hypotheses which stated that there is no significant relationship between digital literacy and quality of teaching in Federal universities in North Central Nigeria is however rejected. It shows that lecturers literacy in digital really influence quality teaching in Federal universities.

Ho_3: There is no significant relationship between lecturers digital literacy and quality research publication in Federal universities in North Central Nigeria

Table 7. Digital literacy and quality research publication in Federal universities in North Central Nigeria.

Variables	No	X	Sd	Df	Calculate r-value	Critical r-value	Decision
Digital	700	38.66	20.11	699	.67	.196	Ho_3

Variables	No	X	Sd	Df	Calculate r-value	Critical r-value	Decision
literacy							
Quality research publication	700	36.17	22.62				Rejected

Table 7 shows that the calculated r-value of.67 greater than the critical r-value of .196 at the degree of freedom of 699and tested at .05 significance level, hence the null hypothesis which stated that there is no significant relationship between lecturers' digital literacy and quality of research publication is however rejected. It shows that high significant influence existed between the availability of digital literacy and quality of the research publication.

Table 8. Ho$_4$: There is no significance relationship between digital literacy and quality record keeping of federal universities in North Central Nigeria.

Variable	No	X	Sd	Df	Calculate r-value	Critical r-value	Decision
Digital	700	38.66	20.11				Ho$_1$
Literacy				699	.66	.195	Rejected
Record keeping	700	14.37	12.97				

Table 8 shows the calculated r-value of .66 is greater than the critical r-value of .195 at the degree of freedom of 699 and tested at .05 significance level. Hence the null hypotheses which stated that there is no significant relationship between the digital literacy and quality of record keeping in federal universities in North central Nigeria is however rejected. It shows that high significant relationship exist between the level of digital literacy and quality of record.

Ho$_5$: There is no significant difference between the digital literacy skills between the senior and junior lecturers in the federal universities in North Central Nigeria.

Table 9. Digital literacy skills between the senior and junior lectures in federal universities in North Central Nigeria.

Variables	No	X	Sd	Df	Calculate r-value	Critical r-value	Decision
Senior	490	40.33	26.77		2.56	3.84	HO$_5$
Junior	210	24.64	18.4	698			Rejected

Table 9 shows that the calculated- t-value of 2.56 is lower than the critical-t-value of 3.84 at the degree of 698 and tested at .05 significance level. Therefore the null hypotheses is it shows that that there high significant differences in the digital literacy skills between the senior and junior lecturers in the federal universities within the North central Nigeria.

4. Discussion of the findings

Based on the analysis of the data collected, the results indicate that most of the digital facilities and equipment that could be used for the teaching-learning processes are not readily available. From the table computer board, interconnectivity, blended classroom, electronic media and power point camera and transparency are not readily available. However, the non-availability of these digital facilities constitute threat to affective utilization for enhancing quality, assurance in federal universities. The result is in line with Ajayi (2016) which noted that non-availability of the educational facilities do impede effective teaching-learning process and quality delivery is therefore greatly affected especially in the area of digital literacy skills for quality assurance of the federal universities in North central Nigeria. In table 2 the digital literacy skills are not put into use in the various federal universities due to the non-availabilities of those digital equipment Aganga (2004) called for adequate supply of computer facilities in schools.

From the analyses also the findings shows that the junior lecturers are more exposed to the digital literacy in the federal universities than the senior lecturers. According to Okonkwo (2014) which stated into the Nigerian universities, the applications and manipulation. However, failure of applicant not to adhere to that requirement he will be employed. As such every junior staff need to go extra mile to receive training in the computer and become digital literate before being employed.

Also, based on the hypotheses formulated and tested at 0.05 significance level. All the hypotheses are rejected, it therefore shows that there are low significant relationship between the digital literacy and quality assurance indicators in Federal universities in North Central Nigeria. The indicators like quality teaching quality

research publication and record keeping in the Federal universities in North Central Nigeria Wuyep (2014) also stated that the availability and effective utilization of digital facilities is a threat to effective quality delivery and quality assurance in Nigerian Educational system and want further to note that without effective utilization of the digital facilities in various institutions in Nigeria, the countries cannot be ranked high among other countries in other countries and the issue of competiveness may grossly affected.

5. Conclusion

Based on the collected data, the analysis of the research work and the discussion of the findings it could be concluded that there are low availability of digital equipment and accessories in the federal universities in North Central Nigeria. However, the low availability of the digital facilities therefore constitute threat to effectiveness and efficiency utilization of the digital literacy skills which affect quality delivery and assurance in the federal universities in the North Central Nigeria.

5.1. Recommendation

Based on the discussion of the findings and conclusion made the following recommendation are made

Digital facilities and equipment availability in every university should be responsibilities of every stakeholder at higher institutions like staff, non-staff, community members government parastatals and well-meaning Nigeria.

Every federal university need to organize lecturers capacity building in form of conferences work shop part time sandwich, in service and lecture on the need for digital literacy, application appreciation

and technological know-how. The training received will develop staff capacities for digital literacy utilization for quality assurance in federal universities.

Every universities should be adequately funded towards effective revitalization of infrastructural facilities including digital laboratories and facilities.

Both the senior and junior staff be motivated by way of providing conducive environment that will aid effective utilization of digital facilities in Nigeria universities. The digitalization of universities system should be put in place by using computerized digitalization messages like interconnectivity, e-mail, e-experience, social media for all transactions at the university system.

Record keeping system should be by digitalization system to eradicate errors and embrace global competitiveness of the universities.

Digital facilities should be properly installed such as CCTV, plagiarism dictators computer internet board all digital facilities that will aid quality teaching and research.

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