

Managing Lecturers' Digital Literacy Skills for Quality Assurance of Federal Universities in North Central Nigeria

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Asia Pacific Journal of
Academic Research in
Social Sciences
Vol. 4, 34-39
November 2019
ISSN 2545-904X (Print)
ISSN 2704-4157 (Online)
www.apjarss.org

Date Received: September 21, 2019; Date Revised: November 20, 2019

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. Split-half reliability method was used to determine the reliability index of the study. The method was subjected to Spearman ranking order statistical. 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 revealed 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. Based on the data analysis it was concluded that Digital literacy aid quality assurance in Nigeria Education, it was recommended the federal universities in North Central Nigeria should make use of digital literacy skills to enhance quality delivery of the university system.*

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

INTRODUCTION

It is an undisputable fact that education is a tool for national transformation, social change and sustainable national development. However, for the fact that the whole world had become a global village where by everyone is digitally connected. The interconnectivity therefore leads to the drift shift from the analogue to digital which had the issue of concern for all sectors of life like education, banking industries, need to be compatible with other works of life thereby called for digital literacy. Therefore, the Nigerian educational institution had been adopting digital methods in their mode of teaching using e-learning, computer boards, blended learning, etc. yet the quality is not delivered, the quality assurance needed in the university education thereby called for effective management strategies for making use of digital literacy to enhance quality assurance in the universities in North Central Nigeria. The study examines the level of digital literacy skills of Junior and senior lecturers in the North Central Nigeria.

No wonder that Ogundele [1] noted that any nation that did not provide quality education to her

citizens, such nation can never be ranked high among the developed nations of the world. Since the Federal Republic of Nigeria [2] 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 are 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 [3] 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. It was therefore, stated that for global competitiveness of educational system in any country, quality of the education should be adequately assured. However, suggestion was 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 [5] 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.

Statement of the problem

Over the years the federal universities have not been 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.

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

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 lecturer 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

METHODS

The research design adopted for this study was a descriptive survey research design of a correlation type. The study was carried out in exposit fact. The population of the academic staff in the seven public universities in the North Central Nigeria was 2658 stratified random sampling technique was used to select 700 respondents. Four research questions and four hypotheses were generated for the study. The instrument adopted for the study was Digital Literacy and Quality Assurance Questionnaire (DLQAQ).

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

Facilities	Available		Not Available	
	No	%	No	%
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 used to embrace security.	60	8.6	640	91.4

Table 1 shows that the digital facilities and equipment are inadequate for effective use of academic staff in the federal university especially in the North Central Nigeria. The implication is that the quality assurance and delivery is at stake

Table 2: Digital literacy skills usage and quality assurance in federal universities

Statement	\bar{X}	Sd	Decision
1. Both lecturers' and students are encourage in the use of computerize board during the teaching learning processes	15.70	2.20	Disagree
2. e-examination and e-monitoring arfe used for the students evaluation	10.76	1.85	Disagreed
3. The lecturers students are exposed to constant training in order to acquire basic digital literacy skills in the schools	12.55	3.43	Agreed
4. 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.

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

Statement	\bar{X}	Sd	Decision
1. The junior lecturers are exposed to digital training than the senior lecturers	18.66	2.38	Disagreed
2. The junior lecturers provided with digital equipment for the performance of duties than the senior lectures.	13.22	3.22	Agreed
3. More junior staff are exposed to training and retraining opportunities than the senior staff	12.32	2.58	Agreed
4. The junior staff have more time to learn different digital skills during the working hours than the senior lecturers.	16.43	2.76	Agreed
5. 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.

Statement	\bar{X}	Sd	Decision
1. Innovation technology used in digitalization become difficult for the senior lectures	36.21	3.88	Agreed
2. Political interferences in the management of the Nigerian institutions made the digital usage difficult	24.32	2.57	Agreed
3. The issue of ethnical challenges made the use of digital technology difficult	20.44	2.82	Agreed
4. Low technological know low made the use of digital skills difficult	18.66	2.96	Agreed
5. Inflationary trends made the purchase of digital technology difficult	18.72	3..66	Agreed

Table 4 revealed that the digital literacy usage is confronted with series of challenge^{1s} which later constitute threat to the achievement of quality delivery and assurance in the Federal Universities especially in the North Central Nigeria.

H0₁: There is no significant relationship between lecturers' digital literacy and quality assurance of federal universities in North Central Nigeria.

Table 5: Digital Literacy and quality assurance of Federal universities in North Central Nigeria (n=700)

Variables	\bar{X}	Sd	Calculated r-value	Critical r-value
Lecturer digital literacy	38.66	20.11	.27	.195
Quality Assurance	32.36	14.73		

Decision: Ho – Rejected; df: 699

Table 5 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.

H0₂: There is no 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 (N=700)

Variables	\bar{X}	Sd	Calculate r-value	Critical r-value
Lecturer's digital literacy	38.66	20.11	.24	.197
Quality teaching	20.44	18.33		

H₀₂ – Rejected; Df: 699

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.

H0₃: There is no significant relationship between lecturers' digital literacy and quality research publication in Federal universities in North Central Nigeria.

Table 7 shows that the calculated r-value of .67 greater than the critical r-value of .196 at the degree of freedom of 699 and 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.

Table 7. Digital literacy and quality research publication in Federal universities in North Central Nigeria. (N=700)

Variables	\bar{X}	Sd	Calculate r-value	Critical r-value
Digital literacy	38.66	20.11	.67	.196
Quality research publication	36.17	22.62		

Decision: H₀₃ – Rejected; Df: 699

It shows that high significant influence existed between the availability of digital literacy and quality of the research publication.

H0₄: There is no significant relationship between digital literacy and quality record keeping of federal universities in North Central Nigeria.

Table 8: Digital Literacy and Quality of Record Keeping (N=700)

Variable	\bar{X}	Sd	Df	Calculate r-value	Critical r-value
Digital Literacy	38.66	20.11	699	.66	.195
Record keeping	14.37	12.97			

H0₁: Rejected

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 exists between the level of digital literacy and quality of record.

H0₅: 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	\bar{X}	Sd	Df	Calculate r-value	Critical r-value
Senior	490	40.33	26.77		2.56	3.84
Junior	210	24.64	18.4	698		

H0₅: 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 hypothesis shows that there are high significant differences in the digital literacy skills

between the senior and junior lecturers in the federal universities within the North central Nigeria.

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 [6] which noted that non-availability of the educational facilities does 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 [7] called for adequate supply of computer facilities in schools, so as to aid computer literacy.

From the analyses also the findings show that the junior lecturers are more exposed to the digital literacy in the federal universities than the senior lecturers. According to [8] 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. However, Ibrahim [9] called for the three tiers of government to come to the aid of the higher Education for the provision of digitally oriented equipment to aid digital literacy among the lecturers for quality delivery.

Also, based on the hypotheses formulated and tested at 0.05 significance level. All the hypotheses are rejected, it therefore shows that there is 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 competitiveness may grossly affected.

CONCLUSION AND RECOMMENDATION

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.

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 needs to organize lecturer 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 university 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 detectors, computer internet board and all digital facilities that will aid quality teaching and research.

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