ACCESS MANAGEMENT AND QUALITY OF DISTANCE EDUCATION IN NIGERIA

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Abstract

The study investigated the relationship between Canvas learning management system, Google Classroom, Zoom for online teaching and quality of distance education. Purposive sampling technique was used to select 750 lecturers in 75 centres of Open University of Nigeria. Data was collected using Access Management and Quality of Distance Education Questionnaire. Pearson product moment correlation coefficient and linear regression analysis were used to analyse the data collected. The findings revealed that Canvas learning management system, Google Classroom and Zoom for online teaching were positive and significantly correlated with quality of distance education. It was recommended that lecturers should continue making use of canvas learning management system so as to helps students to plan the process of their learning. Also, lecturers should continue to adopt and implement the use of google classroom to facilitate effective teaching and learning in order to provides learning opportunities by encouraging questions, exploration and outliers. Furthermore, lecturers should continue make use of zoom for online teaching so as to helps students to work in groups as well as helps students to collaborate both on the preparation and recording of the presentation through video conferencing in order to achieve quality of distance education in Nigeria.

Keyword: Canvas learning management system, Zoom, Google classroom, distance education

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Introduction

Access management is fundamental to achieve vision of distance education due to the fact that, it's open doorways to get adequate information, knowledge and educational resources for learning beyond classroom. It enables open and effective interaction between instructors and students. E-learning platform is necessary to improve quality of distance education through effective management of its access. Distance education has been seen as education empowered by digital technology and as such requires effective access management as changes, while effective teaching is facilitated by different technology access such as google classroom, canvas learning management system, zoom for learning and the likes to sustain the quality of distance education. Access management in this study refers to the technologies such as canvas learning management system, google classroom and zoom for online teaching use to facilitate effective delivery of teaching in enhancing quality learning in distance education.

Distance education is an open higher institution that needs special services due to its unique characteristics. The students attending this education are adults or young adults who have jobs and other commitment and pursue higher education degree for professional advancement or personal satisfaction. Distance education is very appropriate and important during these unusual times of COVID-19 pandemic. Instructors and students are eager to maintain the academic rigor and intellectual vibrancy of the classroom. it is one of the best ways for instructors and students to replicate the classroom experience. Digital classrooms are the way to enhance teaching and learning during extra ordinary situation like the outbreak of coronavirus pandemic. E-learning have been effectively increasing access to educational services. However, distance education still facing different challenges having been criticized by many unestablished information communication and technology effectiveness in pedagogy. In an effort to address these challenges. This study seeks to provide access management indices (canvas learning system management, google classroom & zoom for online teaching) towards ensuring quality in distance education delivery.

Several studies have been embarked upon on different factors for sustainability of distance education. Hope (2015) conducted distance education and the evolution of online learning in the United States. Mark and Lesilie (2016) investigated factors for sustainable evolution of quality distance education. East, Walter and Alter (2014) focused on the effect of distance education on organisation environment. Bokhar and Ahmad (2011) studied how open source empowered the e-learning pedagogy in distance education. Mickey and Yoram (2010) treatise have a focus on twenty years of research on the academic performance differences between traditional and distance learning using summative meta-analysis and trend examination. Sample of 20,000 participants were selected for demonstration of experimental and quasi-experimental studies. The findings revealed that students taking courses by distance education out performed those students in the traditionally instructed based courses. Irina (2018) investigated the needs for modern distance learning technologies in higher education. Sample of 1,250 students was used for the study to identify the main problem to effective implementation of modern distance learning technologies in Kazan federal university, Russia. There are numerous areas of managing quality distance education that are yet to be covered by these scholars. These areas include access management and quality of distance education in Nigeria. Also, there is a little, if any, or possibly no research that have given attention to canvas learning management system, google classroom and zoom for online teaching as indices to ensure quality distance education particularly in Nigeria. Another noticeable gap that warranted this study is that the locale or areas of study of the aforementioned

extant studies differ considerably from the earlier studies. Therefore, this study endeavour to fill the gaps left by the previous scholars.

Literature review

Access Management and Quality of Distance Education

Access management help higher institutions with distance education save extensive costs related to the investment in physical teaching and learning infrastructures as well as contribute to the development of a digital society where teaching and learning can be steered in a simple and fast way at any time in anywhere (Porter, 2013; Taylor, 2007; Beqiri, Chase & Bishka, 2010; Arbaugh, 2005). Access management is generally heralding an opportunity for enhancing the operational process of technologies at minimal cost and regulatory compliance (Mumina & David, 2015). Distance education. Management implies the act of safeguarding the system to work excellently well towards the achievement of goals and enhancement of educational institution (Abdullahi, Sheu & Umar, 2018). It is a practical way of organizing the people and situation in an efficient manner in order to achieve the stated goals and objectives. This implies that management take into consideration existing human and material resources of an organisation and extreme exploitation of these resources in order to realize the stated goals and objectives. Access management in this study refers to canvas learning management, google classroom as well as zoom for online teaching.

Canvas learning management system can be seen as web-based platform that allows teachers to plan, evaluate and using self-services to convey the learning resources and implement the learning procedure (Ellis, Hughes, weyers & Riding, 2009). Canvas learning management system help students and teachers work together toward achieving effective educational activities through sharing course-related resources, conversation in discussing portals as well as supports teaching and learning by allowing teachers to create and organize content for students (Sanga, 2016; Zain, Fadil & Hadi, 2018).

Google Classroom was created on the 12th of August, 2014 saddled with the aim of providing paperless education system. It is a blended learning platform and tools that allow instructors to create, organize and manage online system delivery of lectures using google drive and google document (Udosen & Adie, 2019). Google classroom allows instructors to share announcement and distribute handouts online. It provides an effective and efficient integrated learning content management system for distance learners (Adeola, Adewale & Alese, 2013).

Zoom for online teaching is a tool for distance education which provides access to modern way of teaching and learning. Zoom make it possible to create online meetings that are similar to a conventional teaching situation. It is a flexible teaching environment fashioned with the aid of screen sharing, transmission of speech and image to participants. In using zoom for online teaching, participant receive invitation to join the meeting online via link with identity number and it is possible to record the meeting for future purposes. Zoom has the capacity to host 100 participants at a time and can be used to create small groups within the larger class through breakout room (Abushadat, Benjamin, Mitchell & Umme, 2017).

Quality of Distance Education

Distance education can be seen as a method of teaching with the use of a combination of technologies such as computer, internet, audio and the video as the delivery mechanism due to physical separation of teacher and students (Roffe, 2004). Distance education continues to play a significant role in education in Nigeria as it provides greater access to education and affordable option. It has made it possible for students with busy lives to obtain a quality education through a single internet connection. It has become a worthwhile option to business professionals, working class, stay-at-home-parents and other similar populations (Wladis, Conway, & Hachey, 2015).

Theoretical Framework

This study focuses on self-determination theory propounded be Deci and Ryan (2008). This theory posits that there are two main types of inspiration to learning namely: intrinsic (autonomous) and extrinsic force (controlled drive). According to Deci and Ryan, intrinsic drive comes from within and that there are internal forces that inspire an individual to act in certain manners in terms of interest, personal sense of morality and core values. On the other hand, extrinsic motivation is a force to behave in certain ways based on external reward or external force such as grading systems, respects and admiration of others, awards, fear of punishment and the likes. Therefore, generally both intrinsic and extrinsic motivation are extremely influential determinant of people behaviour and both energize people to meet their basic needs identifies by self-determinants theory (autonomous & controlled).

It can be applied in educational setting such that students have a need to feel that they are the masters of their own destiny and at least have some control over their life (autonomy). Also, they need to build their competence in terms of knowledge, skills, achievement, develop mastery over tasks more important to them and have sense of belongingness and connectedness (controlled). Therefore, access management such as canvas learning management system, google classroom and zoom for online teaching are needed to make learning a social platform, improve course accessibility for all students, building technology-based skill, develop leadership skill as well as fostering effective communication and easier collaboration. Furthermore, students are more satisfied and successful when they can pursue goal in their own way rather than according to strict external system for force. Students are more likely to succeed in learning when they are intrinsically motivated by their need for competence than when they are extrinsically motivated by teachers force or grading system.

Research Objectives

The following objectives have been formulated for the present study:

a) Find out the relationship between canvas learning management system and quality of distance education in Nigeria.
b) Determine the relationship between google classroom and quality of distance education in Nigeria.
c) Examine the relationship between zoom for online teaching and quality distance education in Nigeria.
d) Investigate the relationship among canvas learning management, google classroom, zoom for online teaching and quality of distance education in Nigeria.

Research Hypotheses

The following hypotheses were formulated and tested:

1) There is no significant relationship between Canvas learning management system and quality of distance in education.
2) There is no significant relationship between Google Classroom and quality of distance education.
3) There is no significant relationship between Zoom for online teaching and quality distance education.
4) There is no significant relationship between access management and quality of distance education.

Methodology

Research Design

The research design adopted in this study was quantitative research design. This designed was considered appropriate because of the fact that it help to examine the relationship that exist between access management and quality distance education. It also gives room for researcher to obtain the view of the sample population, analyze the data collected with suitable data analysis and reach a reasonable conclusion about the population from the study findings (Gay, Mills, & Airasian, 2009; Ary, Jacobs, & Sorensen, 2010).

Population and Sample

This study focused on National Open University of Nigeria (NOUN). There are 75 centers of NOUN in Nigeria. The population of this study consisted of 750 lecturers in NOUN 75 centers as at the time of study. Sample of 10 lecturers were purposively selected across the 75 centers of NOUN. Stratified random sampling technique was used in selecting participants for this study, this was to ensure that every member of the population has equal opportunity and right of being chosen (Creswell, 2012). In this respect, all categories of lecturers in National Open University of Nigeria is represented in this study.

Research Tools

The research instrument for this study was a self-constructed questionnaire titled "Access Management and Quality Distance Education Questionnaire (AMQDEQ)" and adapted questionnaire were used in this study. A total of 20 items were used to measure access management with three sub-constructs: Canvas learning management system (7 items), Google Classroom (7 items) and Zoom for online teaching (6 items). The items of questionnaire regarding quality of distance education was concluded from Kamble and Wankhade (2018) on increase productivity with (5 items), Taran, Boer and Lindgren (2015) on flexible access to resources with (5 items), Dominic, Martin and Rob (2019) on flexible content delivery with (5 items). Participants answered to four Likert scale point as follow: 4 = Strongly Agree (SA), 3 = Agree (A), 2 = Disagree (D) and 1 = Strongly Disagree (SD). The criterion mean is given accordingly: $4 + 3 + 2 + 1/4 = 2.50$. The criterion mean depicts that any item that is above or equal to the norm mean value of 2.50 is interpreted as agreed while the value below the norm mean value is disagreed by the participants

(Bergkvist & John, 2007; Brown, 2000) concluded that 4-point Likert scale answer format was easier and quicker to complete than 5 to 7-point scales answer format.

Validity and Reliability

Validity of the instrument was done by giving the draft copies of the instrument to two experts in measurement and evaluation and two experts in educational management to look into the correctness and suitability of the instrument. Based on their comments and recommendations, appropriate modifications and adjustment were made. Also, 30 corrected copies were further administered to lecturers who are part of the sample to spot their clearness of the items of wording, instructions of the questions and scales so as to discover if there may be any problems when filling the questionnaire. Therefore, some recommendations made were amended appropriately before sending the final copies. The reliability of the instrument was done with the use of Cronbach's alpha as shown in Table 1 and the value for Cronbach's alpha was for this study was proven to be acceptable and tolerable.

Table 1

Reliability Test for AMQDEQ

Variables	Sub-constructs	N	Cronbach's alpha	Decision
Access Management	Canvas learning management system	7	0.84	All items are acceptable and tolerable
	Google classroom	7	0.78	All items are acceptable and tolerable
	Zoom for online teaching	6	0.82	All items are acceptable and tolerable
Quality of distance education	Increase productivity	5	0.80	All items are acceptable and tolerable
	Flexible access to resources	5	0,86	All items are acceptable and tolerable
	Flexible content delivery	5	0.82	All items are acceptable and tolerable

Table 1 shows the result of reliability test for AMQDEQ for Access management, these are canvas learning management system, google classroom and zoom for online teaching. The Cronbach's alpha value for canvas learning management system is 0.84 with 7 items, 0.78 for google classroom covering up to 7 items and 0.82 for zoom for online teaching with 6 items. Also, on quality of distance education variables, the Cronbach's alpha value for sub-constructs are 0.80 for increase productivity, 0.86 for flexible access to resources and 0.82 for flexible content delivery. Values above 0.70 are considered acceptable and tolerable (Ary, Jacobs & Sorensen, 2010; Gay, Mills & Airasian, 2009).

Data Collection Procedure

The questionnaire was administered to lecturers of the sample centers through their following mediums Emails, WhatsApp, and Telegram platforms. Effective inbox of the instruments to the lecturers was also aided with the help of colleagues and friends in the sample centers. The questionnaire was sent to over 800 participants comprised of the selected lecturers. However, a total of 755 questionnaires were retrieved and filled appropriately. The retrieved number meet the suggestion of Research Advisor (2006) with a number of 750 participants used in this study; in accordance with Staley and Wise (2010) that emphasized the ethical consideration and protection of participants right by ensuring that participants are treated with appropriate respect beyond what may be required by law (Hesse-Biber & Leavy, 2011) . To adhere to ethical issues permission was sought from the participants before sending out the questionnaire. The participants were assured of anonymity and confidentiality of their responses.

Data Analysis

The data collected for the study were analyzed using descriptive statistics like mean and standard deviation to determine the objectives of the study. Inferential statistics such as Pearson product moment correlation and linear multiple regression statistical analysis was used to test the hypotheses at (0.5) significance level to determine the acceptable or rejection or the hypotheses (Cresswell, 2015). The data collected was loaded into the statistical package for social science (SPSS) version 22 software for statistical analysis to compile data from lecturer's questionnaire on access management and quality of distance education.

FINDINGS

Demography Data of Participants

This section presents a complete demographic information of participants made from the data collected in this study using simple percentage and the result of the findings based on research objectives

Table 2

Demographic Information of the participants

Main Category	Subcategory	N = 750	Percentage (%)
Gender	Male	622	83%
	Female	128	17%
		750	100%
Average age	21-30	185	25%
	31-40	242	32%
	41-50	253	34%
	51 above	70	9%
		750	100%
Qualification	B.Ed	174	23%
	M.Ed	497	66%
	PhD	79	11%
		750	100%

Years of experience	1-5 years	128	17%
	5-10 years	242	32%
	10-15 years	220	29%
	15 years above	160	21%
		750	100%

Table 2 shows the demographic information of the participants that are involved in this study. Majority 622 (83%) participants are male and 128 (17%) are female. In terms of average age, majority 253 (34%) of the participants are between ages 41-50 years while 70 (9%) 0f the participants are 51 above. Based on qualification, majority of the participants 497 (66%) are M.Ed degree holder while 79 ?(11%) are PhD holder. Majority 242 (32%) have 5-10 years' experience while 160 (21%) have 15 years above experience in the sample institutions.

Canvas Learning Management System

Objective 1: Find out the relationship between canvas learning management system and distance education in Nigeria.

Table 3 presents the mean and standard deviation responses of lecturers on canvas learning management system in Nigeria.

Table 3

Mean and Standard Deviation of Items on Canvas Learning Management System

S/N	Canvas Learning Management System	Participants Responses Mean	SD	Decision
1	Canvas learning management system help the students to plan the process of their learning.	2.89	0.973	Agreed
2	Gives room for faster and more efficient delivery of lesson in any location.	2.85	1.035	Agreed
3	Helps to build technology-based skills in lecturers and students.	2.94	0.922	Agreed
4	Encourages students-students communication.	2.97	0.944	Agreed
5	Enhance effective verbal presentation skills.	2.77	1.033	Agreed
6	Helps students to learn and understand leadership skill.	2.82	0.958	Agreed
7	Encourages easier collaboration between students and instructors.	2.92	0.951	Agreed
	Overall Mean	2.88	0.974	

The overall perception of the participants on canvas learning management system as shown in Table 3 is interested as "Agreed" (M = 2.88, SD = 0.974). This shows that participants agreed that canvas learning management system enhance quality of distance education in Nigeria. Also, all the responses obtained mean value higher than the criterion mean value of 2.50. This reveals that participants agreed that canvas learning management system i) help the students to plan the process of their learning (M = 2.89, SD = 0.973), ii) gives room for faster and more efficient delivery of

lesson in any location (M = 2.85, SD = 1.035), iii) helps to build technology-based skills in lecturers and students (M = 2.94, SD = 0.922), iv) encourages students-students communication (M = 2.97, SD = 0.944), v) enhance effective verbal presentation skills (M = 2.77, SD = 1.033), vi) helps students to learn and understand leadership skill (M = 2.82, SD = 0.958), vii) Encourages easier collaboration between students and instructors (M = 2.92, SD = 0.951).

Google Classroom

Objective 2: Determine the relationship between google classroom and quality of distance education in Nigeria.

Table 4 shows the analysis of the participants responses for the construct of google classroom and quality education in Nigeria.

Table 4
Google Classroom as responded by the participants

S/N	Google Classroom	Participants Responses Mean SD		Decision
8	Google classroom provides learning opportunities by encouraging questions, exploration and outliers.	2.96	0.910	Agreed
9	Helps to communicate in multiple format such as image, text audio and video.	2.88	0.962	Agreed
10	Provides useful and timely feedback.	2.93	0.964	Agreed
11	Improves course accessibility for all students.	2.91	0.959	Agreed
12	Provides opportunity for self-assessment.	2.78	1.032	Agreed
13	Helps making learning a social platform.	2.80	0.956	Agreed
14	Provides a friendly way of managing classroom documents.	2.88	1.002	Agreed
	Overall Mean	2.88	0.969	

Table 4 reveals the overall perception of participants on google classroom is interpreted as "Agreed" (M = 2.88, SD = 0.969). this reveals that participants agreed that google classroom improve quality of distance education in Nigeria. Also, all responses obtained mean values higher than the criterion mean value of 2.50. this shows that participants agreed that google classroom i) provides learning opportunities by encouraging questions, exploration and outliers (M = 2.96, SD = 0.910), ii) helps to communicate in multiple format such as image, text audio and video (M = 2.88, SD = 0.962), iii) provides useful and timely feedback (M = 2.93, SD = 0.964), iv) improves course accessibility for all students (M = 2.91, SD = 0.959), v) provides opportunity for self-assessment (M = 2.78, SD = 1.032), vi) helps making learning a social platform (M = 2.80, SD = 0.956), vii) provides a friendly way of managing classroom documents (M = 2.88, SD = 1.002).

Zoom for Online Teaching

Objective 3: Examine the relationship between zoom for online teaching and quality of distance education.

Table 5 revealed the analysis of the participants' responses for the construct of zoom for online teaching and quality of distance education.

Table 5
Mean and Standard Deviation on Zoom for Online Teaching

S/N	Zoom for Online Teaching	Participants Responses Mean	SD	Decision
15	Zoom for online teaching helps students to work in groups.	2.97	0.953	Agreed
16	Helps students to collaborate both on the preparation and recording of the presentation through video conferencing.	2.92	0.951	Agreed
17	Made it easy to create the presentation in real time.	2.89	0.990	Agreed
18	Gives room for discussion and interaction.	2.90	0.988	Agreed
19	Provides prompt feedback for instructors and student.	2.91	1.000	Agreed
20	Provides effective ways of learning and prospect diverse of talents.	2.93	0.948	Agreed
	Overall Mean	2.92	0.972	

Table 5 shows the overall perception of participants on zoom for online teaching is interpreted as "Agreed" (M = 2.92, SD = 0.972). This revealed that participants agreed that zoom for inline teaching bring about quality of distance education in Nigeria. Also, all responses obtained mean values higher than the criterion mean value of 2.50. This reveals that participants agreed that zoom for online teaching i) helps students to work in groups (M = 2.97, SD = 0.953), ii) helps students to collaborate both on the preparation and recording of the presentation through video conferencing (M = 2.92, SD = 0.951), iii) made it easy to create the presentation in real time (M = 2.89, SD = 0.990), iv) gives room for discussion and interaction (M = 2.90, SD = 0.988), v) provides prompt feedback for instructors and student (M = 2.91, SD = 1.000), vi) provides effective ways of learning and prospect diverse of talents (M = 2.93, SD = 0.948).

Hypotheses Testing

Pearson product moment correlation coefficient statistic was used in this study to test the set hypotheses as follow:

H_{01} There is no significant relationship between canvas learning management system and quality of distance education.

Table 6

Correlational Analysis for CLMS and Quality of Distance Education

		Canvas Learning Management System	Quality of Distance Education
Canvas Learning Management System	Pearson Correlation	1	.810**
	Sig.		.000
	(2-Tailed)		
	N	750	750
Quality of Distance Education	Pearson Correlation	.810**	1
	Sig.	.000	
	(2-tailed)		
	N	750	750

Table 6 shows that canvas learning management system has a positive and significant relationship with quality of distance education with calculated r-value = .810; p < .000. This shows that there is a significant relationship between canvas learning management system and quality of distance education in Nigeria (Cresswell, 2012). Therefore, the hypothesis which state that there is no significant relationship between canvas learning management system and quality of distance education is rejected.

H_{02} There is no significant relationship between google classroom and quality of distance education

Table 7

Correlational Analysis for Google Classroom and Quality of Distance Education

		Google Classroom	Quality of Distance Education
Google Classroom	Pearson Correlation	1	.920
	Sig.		.000
	(2-Tailed)		
	N	750	750
Quality of Distance Education	Pearson Correlation	.920	1
	Sig.	.000	
	(2-tailed)		
	N	750	750

Table 7 reveals that google classroom has a positive and significant relationship with quality of distance with calculated r-value = .920; P < .000. This shows that there is a significant relationship between google classroom and quality of distance education in Nigeria (Mugenda & Mugenda, 2013). Therefore, the hypothesis which state that there is no significant relationship between google classroom and quality of distance education is rejected.

H_{03} There is no significant relationship between zoom for online teaching and quality of distance education

Table 8

Correlational Analysis for Zoom for Online Teaching and Quality of Distance Education

		Zoom for Online Teaching	Quality of Distance education
Zoom for Online Teaching	Pearson Correlation	1	.802**
	Sig.		.000
	(2-Tailed)		
	N	750	750
Quality of Distance Education	Pearson Correlation	.802**	1
	Sig.	.000	
	(2-tailed)		
	N	750	750

Table 8 reveals that zoom for online teaching has a positive and significant relationship with quality of distance education with calculated r-value = .802; p < .000. This shows that there is a significant relationship between zoom for online teaching and quality of distance education in Nigeria (Cresswell, 2015). Thus, the hypothesis whish state that there is no significant relationship between zoom for online teaching and quality of distance education is rejected.

Linear Regression Analysis

Objective 4: Investigated the relationship between access management and quality of distance education in Nigeria.

This presents the linear regression finding that measured the relationship between access management and quality of distance education in Nigeria.

Table 9

Linear Regression of Access Management and Quality of Distance Education

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.607	0.518	0.498	0.414

a. Predictors: (constants), canvas learning management system, Google classroom and zoom for on line teaching

Table 9 reveals that access management has significant impact on quality of distance education with 0.518 of R square Value from the table. Therefore, the result shown that access management could have positive effect on quality of distance education.

Table 10

Linear Regression Coefficient for Access Management and Quality of Distance Education

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.467	0.384		6.271	0.000
Canvas learning management system	0.138	0.214	0.438	1.840	0.036
Google classroom	0.046	0.212	0.292	2.242	0.217
Zoom for online teaching	0.084	0.216	0.214	2.148	0.440

a. Dependent Variable: Quality of Distance Education

According to Table 10, the standard regression weight of the beta coefficients value for access management was 1.467 which reveals that improve on access management bring about quality of distance education. Also, indicated that access management and quality of distance education were undeniably related. t-test of 6.271 was sufficiently high with corresponding p-value of 0.000. Thus, in comparison, canvas learning management system has the highest impact (Beta= 0.438) follow by google classroom (Beta= 0.292) and zoom for online teaching (Beta= 0.214). In summary, there is significant and perfect relationship among access management in terms of canvas learning management system, google classroom, zoom for online teaching and quality of distance education.

Discussion

The findings in Table 3 reveals that canvas learning management system improve quality of distance education in Nigeria that it helps students to plan the process of their learning, gives room for faster and more efficient delivery of lesson in any location, helps to build technology-based skills in lecturers and students, encourages students-students communication, enhance effective verbal presentation skills, helps students to learn and understand leadership skill as well as encourages easier collaboration between students and instructors. Results from hypothesis one revealed that there is a positive and significant relationship between canvas learning management system and quality of distance education

in Nigeria. The finding agreed with Zain, Fadil and Hadi (2018) that canvas learning management system helps to achieve quality education through sharing of course-related resources. The finding concurs with Sanga (2016) that canvas learning management system helps students to be imaginative and systematic in learning process.

The findings in Table 4 shows that google classroom enhance quality of distance education in Nigeria, such that it provides learning opportunities by encourage questions, exploration and outliers, helps to communicate in multiple format such as image, text audio and video, provides useful and timely feedback, improves course accessibility for all students, provides opportunity for self-assessment, helps making learning a social platform as well as provides a friendly way of managing classroom documents. Results from hypothesis two shows that there is a positive and significant relationship between google classroom and quality of distance education in Nigeria. This finding conforms to Heggart and Yoo (2018) that google classroom increased students' participation in learning and improved classroom dynamics. This finding is in line with Izwa, Jastin and Syamimi (2014) that google classroom is an active tool of learning which can be applied to other appropriate subjects.

The findings in Table 5 reveals that zoom for online teaching bring about quality in distance education in Nigeria, such that it helps students to work in groups, helps students to collaborate both on the preparation and recording of the presentation through video conferencing, made it easy to create the presentation in real time, gives room for discussion and interaction, provides prompt feedback for instructors and student as well as provides effective ways of learning and prospect diverse of talents. Results of hypothesis three reveals that there is a positive and significant relationship between zoom for online teaching and quality of distance education. This finding agreed with Abushadat, Benjamin, Mitchell and Umme (2017) that zoom for online teaching is helpful to allow students to solve command of application through course teacher.

The finding of regression analysis shows that there is significant relationship between access management and quality of distance education in Nigeria. This finding agreed with Ugnna and Airen (2014) that access management have effective impact on distance learners in higher institutions. This finding also in line with Anders (2018) that distance education support personal development of students and lifelong learning by providing access to education. This finding concurs with Kehrwald (2008) that access management medium of communication has contributed to the development of social presence among distance learning students.

Conclusion

Based on the findings of this study, the researcher concluded that there was positive relationship between the three indices of access management (canvas learning management system, google classroom & zoom for online teaching) and quality of distance education as they were found to be allied to one another. Access management as an avenue for making learning a social platform and efficient delivery of lesson towards achieving quality of distance education. The findings of this study would be of benefit to the government to provide enabling environment that will bring about effective access platforms for appropriate delivery of lesson towards the realization of quality distance education. The findings will also help the lecturers to continue making used of appropriate teaching platforms for imparting knowledge in order to achieve quality of distance education. In addition, it would serve as a reference point for future researchers in the field of education.

Lecturers should continue to make use of canvas learning management system so as to help the students to plan the process of their learning, gives room for faster and more efficient delivery of lesson in any location, helps to build technology-based skills in lecturers and students, encourages students-students communication, enhance effective verbal presentation skills, helps students to learn and understand leadership skill as well as encourages easier collaboration between students and instructors. Lecturers should also continue to adopt and implement the use of google classroom to facilitate effective teaching and learning in order to provides learning opportunities by encouraging questions, exploration and outliers, helps to communicate in multiple format such as image, text audio and video, provides useful and timely feedback, improves course accessibility for all students, provides opportunity for self-assessment, helps making learning a social platform as well as provides a friendly way of managing classroom documents. Lecturers should continue make use of zoom for online teaching so as to helps students to work in groups, helps students to collaborate both on the preparation and recording of the presentation through video conferencing, made it easy to create the presentation in real time, gives room for discussion and interaction, provides prompt feedback for instructors and student as well as provides effective ways of learning and prospect diverse of talents in other to bring about quality of distance education. Access management is a perfect way of enhancing quality of distance education for improving students' productivity, flexible content delivery and flexible access to resources in order to achieve distance educational goals and objectives.

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