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Management of Instructional Facilities and Academic Performance of Students in Open and Distance Education in Rivers State

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ABSTRACT

The study examined management of instructional facilities and academic performance of students in open and distance education in Rivers State. Three specific objectives, research questions and three hypotheses respectively were formulated to guide the study. A correlational survey design was adopted. A stratified sampling technique was adopted in selecting a sample of one hundred, and thirty-four (134) lecturers from University of Port Harcourt and Rivers State University.The instrument that was used for data collection was a questionnaire titled: "Management of Instructional Facilities Questionnaire (MIFQ)"and "Academic Performance of Students Questionnaire (APSQ)". Simple regression analysis was used in answering the research questions, while t-test associated with simple regression was implored in testing the hypotheses. The findings revealed that there was significant relationship between management of e-learning facilities, virtual learning facilities, classroom space and academic performance of students in open and distance education in Rivers State. The study concluded that there should be a wake-up call for all educational stakeholders, including government to contribute to the advancement of education, especially for the open and distance learning, in order for the students to get the best out of it. It was recommended amongst others that there is need for educational institutions to give more priority in the provision of e-learning facilities through industry-institution collaboration for effective teaching and learning to take place.

Introduction

Open and distance education tend to offer new possibilities for universities to provide equal learning opportunities for their students. Many universities have not embraced distance education in general for fear that it would undermine the traditional educational system, limit student interaction with peers and teachers and eradicate the platforms where deliberate academic discourse takes place, (Fallon, 2012). Access to educational opportunities for all is a major challenge facing most developing countries. Open and distance education broadens access to education, (Gakuu, 2016); and the adoption of distance education in the institutions of higher learning will provide alternative methods of ensuring that the social demand for higher education is met.

Akubueze (2012) described quality through five pillars for effective asynchronous distance learning including: Student satisfaction; access to desired courses and accompanying support; learning effectiveness; faculty (staff) satisfaction; and cost effectiveness. McDougall, Young and Apan(2011) also defined quality as the standard of infrastructure provided to thestudent. Therefore, quality encompasses issues such as development of course materials, staff, delivery systems and support mechanisms. Distance education depends a lot on the support facilities and infrastructure. These include the computers, and internet connectivity.One of the vital principles (philosophy) in distance education isthat the instructional leader requires a unique bundle of competencies. He needs to know how to make best use of the technologies available in order to personalize instruction and actively involve students in the learning experience (Dooley, 2015). Such unique bundles of competencies and best use of technologies cannot be realized with the necessary support facilities which the university managers must provide for adoption of distance education to be accelerated. In distance education support facilities available play a key role in determining the success of distance learning.

Instructional materials have been observed as a potent strategy to bring about effective teaching and learning. The importance of quality and

adequate instructional materials in teaching and learning can occur through their effective utilization during classroom teaching. Instructional facilities here include all the tools that the teachers can use to make the learning more interesting and memorable.According to Oni (2010), instructional resources are teachers' strategic factor in organizing and providing education. This is so because they help to elaborate a concept that the teacher could not, without an instructional material. This allowsstudents to learn more comfortably therefore influencing positively their academic performance. Writing on the role of instructional materials in teaching and learning, Balogun (2009) commented that most education programmes cannot be taught effectively without the existence of equipment for teaching. This is because instructional facilities help those who learn to develop problem-solving skills and scientific attitudes.

According to Adeogun (2011) schools whose teachers use more instructional facilities, perform better than schools, whose teachers do not use much instructional facilities. This corroborated the study by Babayomi (2009) that private schools performed better than public schools because students and teachers are provided with sufficient and quality teaching and learning facilities. From this importance, schools at all levels of education have been advised to have quality and adequate instructional facilities to raise academic performance of their students.

The available literature and studies related to open and distance education expanded considerably in the last years. There are different studies on distance education, which ranges from its technologies, methods, and teaching to perceptions, opinions andattitudes of students and academicians toward distance learning. Perumalla, Mak, Kee and Mathews (2011) studied the effectiveness of an online course and integration of web applications in order to improve the distance learning environment. Their outcome revealed that web application facilitates distance learning. Cinar and Torenli (2010) focused on redesigning the online courses in order to meet the expectations of enrolled students. Isik, Karakis and Guler (2010) examined postgraduate students' attitudes toward web based distance learning and revealed general positive attitude toward distance learning. Also, Karakoyunand Karak (2009) agreed with their opinion regarding distance learning. Beyth-Marom, Chajut, Roccasand Sagiv (2003) analyzed factors related to students' selection of Internet-assisted versus traditional distance learning. They discussed theoretical, methodological and practical implications. In all these, they reported the exertive influence of Distance Education on attitude of lecturers, students as well as enhancement of effectiveness of teaching, learning and studentsperformance. In view of this, it becomes imperative to find out how management of instructional facilities will affect academic performance of students of open and distance education.

Peters (1991) analyzed distance education as industrialized form of teaching. In his view, distance education represents the industrialized form of teaching, with the following aspects, typical for an industrial process:Rationalization, division of labour, mechanization, assembly line, mass production, planning and preparation and standardization. All these aspects are interdependent in an industry if a finished product is to be received. This applies to distance education where the management, teacher/lecturer, the learner, administration, material and infrastructure among others should work together for learning to take place. The management should endeavour to provide all the necessary support in order to quality distance education as the end product of the entire process.

The study also used Moore's theory structure for distance education,the theory of independent study, (Moore, 2000). Moore analyses distanceeducation on two dimensions, distance and student autonomy. This studyseeks to expand on the need for adoption of distance education and its related technology to take care of the distance, increase student autonomy and academic performance. To increase the students'autonomy bridge the gap (distance) between the learner and the teacher/lecturer the necessary support facilities must be availed. This theory is suitable for this research because, instructional facilities need to be in place in open and distance education for academic performance of the students to be enhanced.

The Evolution of Distance Learning in Nigeria

Distance learning in Nigeria can be traced back to the colonial time. Owoeye (2004) opined 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 studies in Nigeria started around the 70s at the University of Ibadan and this was followed by correspondence study, part time programmes offered by conventional universities and other schools, continuing education programmes of Adult Education Department of the universities, programmes offered by the NTI, the National Open University of Nigeria and sandwich programmes offered by universities and other institutions. The sandwich programmes were established in the mid-80s and run by some Nigerian Universities and Colleges of Education. The sandwich programmes were originally designed and run during the school long vacations to create opportunities for participation by workers, especially teachers.

These programmes are open to all categories of learners with varied entry qualifications ranging from Primary School Certificate, attempted School Certificate, School Certificate holders, TCII teachers,NCE and first degree holders. More women enrolled in this programme. This was to create access for those who are not able to make it to the conventional schools because of time and other factors.Although Open and Distance

learning was introduced to the university education system in Nigeria in 1983, it only became functional in 2001. It is a timely and phenomenal evolution in the history of Nigerian higher education. The programme provides access to young, elderly and disadvantaged groups who are interested in the acquisition of university education, anytime and anywhere. Open and distance education is flexible, and learner friendly. Multi-perspective approaches to learning are adopted in order to ascertain the quality of instruction.

Relevance of Open and Distance Learning to Nigerian Education

According to Nwaocha and Iyiama (2008) the relevance of open distance learning (ODL) to Nigerian Education includes the following:

Access: It increases people's access to education. People who would have found it impossible to attend the conventional school system benefit from ODL. Many stakeholders in the education sector are interested in open and distance learning because it allows greater access to educational opportunities. This is in keeping with the stated objectives of the National Policy on Education that 'maximum efforts shall be made to enable those who can benefit from higher education to be given access to it. Such access may be through universities or correspondence courses or open universities or part time, e learning and work study programmes (FRN, 2013).

Social Enhancement: Open and distance learning schemes hold a number of potential benefits for various stakeholders in the education and development process. To the learners, ODL means more freedom of access as well as a wider range of opportunities for learning and qualifications, thereby improving their social status. It is often cheaper means of attending school for the student since some people may not be able to leave their places of work to go to school full time. Men of the armed forces and other security agencies are registered in large numbers for distance learning to enhance their social status.

Economic Growth: Open distance learning is an avenue for institutions to improve their Internally Generated Revenue (IGR). It is also an avenue formany people to become learned and be better workers in any profession they choose or are currently engaged in.Students are allowed to read up to whatever level they want, hence contributing to the economic growth of the nation through better performance. For employers, ODL offers the possibility oforganising in-service training for their staff without necessarily releasing them for long periods of productive time. With sufficient number ofemployees being trained, ODL is often the most cost-effective means. For the government and educational policy makers, the system is a panacea for the perennial problem of provision of equitable and accessible education in an affordable and cost effective way. ODL has also reduced poverty levels among teachers, since programmes are attended while at work. The government too incurs little cost on the training but develops the manpower to improve the economic situation of the nation. Nigerian prisoners or inmates enjoy distance learning programmes in Nigeria so as to be useful to the nation by contributing their quota to the development and economic growth of the nation during and after release. ODL has given tremendous supports to teacher training in the drive to Universal Basic Education programmes in Nigeria. ODL is working towards the development of education and life skills for youth and the management of the available natural resources.

Calvert (2006) asserted that distance education helps extend the market for education to clientele who have not been previously served. The problem of unsatisfied demand for education versus actual supply of educational services contributed to the acceptance, growth, and implementation of distance education programme in Nigeria as a means to bridge the gap between demand and supply (Aderinoye&Ojokheta, 2004). Reflecting on how distance education has influenced development in teacher education in Nigeria and Africa as a whole, the Nigerian situation reveals the high degree of influence distance education initiatives have had on personal, community and overall national development. Nigeria can now boast of capable and competentteachers working in its education sector, improvement in the quantity and quality and overall capacity ofeducation managers as well as school administrators necessary to lead the nation's educational system (Dennis, 2007).

Concept of Education Resources

Education resources refer to all human, material, non-material audio-visual school environment and community materials available in an academic environment to facilitate school administration and simplify the teaching learning process. They also include other fundamental materials used in the school to make teaching very easy and learning more meaningful and comprehensible to the learners. Education resources cover all those materials human and non-human, drawn or photographed, built manually or electronically operated, books and all forms of related materials used in teaching and learning process (NTI,2006). Education resources includes the teachers in the school, human beings in the community, real objects, specimen or models, chalk and display boards, school buildings and layout, the community at large and other fundamental materials like pencils, pens, exercise books etc. which the learners are expected to have at any point in time to facilitate learning (NOUN, 2009).

Education resources are no doubt important in the development of a conducive teaching-learning environment. The use of these resources could

give more valuable and powerful direction to the teacher than any personal efforts without the materials.Agabi (2012) observed that, the resources provided by Government for execution of education projects in Nigeria are inadequate and irregular as highlighted by the frequency of industrial actions in the education sector. Moreover, due to the general level of poverty in the country, the contribution of communities and households to educational provision has been negligible. Consequently, the best alternative is prudence in theuse of available resources. This is because when a given level of resources is efficiently utilized, more servicesare provided through balance usage and adequate maintenance of the available facilities than when inefficiency, on-utilization, under-utilization and over utilization abounds.

Concept of Instructional Facilities

Instructional materials play a very important role in the teaching-learning process, theavailabilities of textbook, appropriate chalkboard, Mathematics kits, Science kit, teaching guide, science guide, audio-visual aids, overhead projector, among others are the important instructional materials (Yusuf, 2005), However many facilities are missing in approximately almost all schools in the state. According to Raw (2010) the first instructional material is the textbook. Various definitions to textbook emphasize the role of textbook as tool for learning. Textbook is the nucleus to all the learning activities related to a particular curriculum. Textbook plays a vital role in imparting knowledge to the students in the third world countries. Yusuf (2005) further opined that, the next instructional materials are the chalkboards. The chalkboard is the teaching aid that teachers frequently used; particularly during the lectures and discussions.

There are different kinds such as, blackboard, maker board, write board, felt board and magic board. The teachers use it in classrooms to write the important words, statement, to drawdiagrams, figures and maps. Other prominent instructional material include; mathematics kits. This is usually study kit; it is a box containing a variety of visual aids artistically assembles and displayed pertaining to a single topic (Nichollos, 2000).Computer is also used as an instructional materials and it serves as tool for learning. Faize andDahan (2011) mentioned that map and chart are generally used during lecture and discussions about the relationships of things; like colour clothes, among others. Another is the overhead projector. It is a device that projects the small transparencies into large view on the board. Through overhead projector, the students are able to read, look, react andunderstand the text, graph, picture or anything written or drawn on the transparencies. According to Usman (2011) overhead projectors are becoming common and popular, and are widely used in normal teaching-learning processes; for example in seminars, workshops, among others. The lists of instructional materials are inexhaustible in line with the teacher's level of creativity and resourcefulness.

E-Learning and Academic Performance of Students

E-learning is described as a technology, organization and governance-based framework that enable students to learn through the web and to learn easily. Education as acquisition of information disseminated by electro-devices is also characterized by (Holley, 2012). E-learning is the use of interactive education platforms such as machines, the Internet, multimedia disks, electrical papers, simulated newscasts for the purposes of minimizing time and costs to develop, speed up and promote learning (Zameni&Kardan, 2011). The usage of information and networking technology in instructional programs has created a modern style of education that does not involve physical attendance and useful in distance education. Khalkhali (2011) observed that e-learning has a beneficial influence on students' academic achievement. Zameni, and Kardan (2011) concluded that the usage of e-Portfolio greatly enhanced the students' mood, enthusiasm and academic achievements during their studies at the e-learning centre have observed that students trained in multimedia techniques gained and recollected more than students trained in the conventional techniques. The analysis and its impact on learning and imagination of the studies done in the field of the e-learning application show that the usage of this teaching approach will contribute to the success of the instruction. The advent of modern teaching and learning theories has changed the curriculum from teaching to student-oriented. In addition, the creation and development of new communication technologies has allowed the modern human being to use modern methods of teaching & learning, to liberate themselves from barriers to space and time (Holley, 2012)

Virtual Learning and Academic Performance of Students

Generally, virtual classroom is often appreciated by students as a result of the abundant resources and free time it allows as well as autonomous study, intuitive knowledge and selective contents (Falloon, 2012). Students must arrive on time, and when he/she enters into the classroom, he/she find a fixed classroom with teachers, fellow learners, a whiteboard, LCD projector, optionally a television screen with audio and video facility (Hall, 2012).Gedera (2014) in an attempt to develop a better understanding of students' experiences of learning with the specific online learning technology of Adobe Connect virtual classroom discovered that students were satisfied with the platform of learning. Stating that in spite of the constraints of virtual classroom, most of the students preferred to have more virtual classroom activities because of the presence of cues and more human interactions.

With the increased popularity of the Internet, computer technologies are receiving more and more attention as a means of delivering distance learning. The primary computer technologies used for distance learning include e-mail, online collaborations, and Web-based learning. The advantages of computer technologies are: they allow self-paced instruction, can incorporate text, graphics, audio and video, they allow high level of interactivity, provide written record of discussions and instruction, they are inexpensive and worldwide accessible.Virtual classroom has been found to be very effective in the dispensation of Distance Education Programme in many countries of the world. The strategy has been extended as a veritable tool in enhancing teaching and learning in a diversified form of education. Unfortunately, the use of virtual classroom is seldom in Nigeria in many academic programs and only depends on potentialities established by many institutions. Only very recent that extension is givento adopting virtual classroom in teaching and testing of students in institutions and examination bodies (Akpan, Etim&Udom, 2016).

Akpan, Etimand Udom(2016) investigated Virtual Classroom Instruction on Academic Performance of Educational Technology Students in Distance Education, Enugu State. The population for this study was limited to the Students in National Open University, Enugu study Centre. Simple random sampling technique was used to select forty respondents from the educational technology students. A researcher developed questionnaire was used to gather the needed data. Collected data were analyzed using frequency counts and percentage. The findings from this study suggested that the students' acknowledged that the availability and use of virtual classroom influenced their academic performance. Although the virtual classroom available was adequate, it was not often utilized for instruction. Thus, the researcher recommended that the virtual classroom should be utilized for maximum learning.

Ramli, and Zain (2018) examined the impact of facilities on student's academic achievement This study described three factors that can impact student's academic achievement, which is SystemManagement (E-Learning, Management Information System); Learning Environment (Classrooms, Teaching Aid, Library) and Infrastructure (Hostels, Sports Facilities, Parking & Transportation). It was conducted in the Universiti Malaysia Kelantan (UMK) City Campus because of its conditions of using shop lots as building the campus. Data were distributed to500 students of 2016/17 academic calendar. A total of 364 returned and usable questionnaires were received, given aresponse rate of about 73 percent. The study used correlation and regression analysis to analyse the data. The results of thestudy showed that E-learning of System Management; Teaching Aids and Library of Learning Environment; Hostels, Sports Facilities and Parking and Transportation of Infrastructure were all significant to impact students' academic achievement.All the factors contributed about 51.5 percent towards the students' achievement.

Bukoye (2019) investigated the utilization of instructional materials as tools for effectiveacademic performance of students. Survey research method was used and the study sampled the total number of 100 respondents in five selected secondary schools. A questionnaire constructed by the researcher and re-structured by two experts was used for data collection. The reliability was confirmed with the use of split-half method with 0.63 alpha level of significance got. The questionnaire was shared to the respondents with the assistance of the school heads. The findings revealed inadequate use of instructional materials in most schools and majority of the teachers did not take cognizance of the importance derived from the use of instructional materials while teaching. Those that adopted the utilization did not use them appropriately. No wonder the high rate of students' failure in external examinations. Based on the findings, the professional counsellors in the state should sensitize all heads of schools and teachers through seminars and workshops on the importance and good utilization of instructional materials. Among other recommendations, the government should endeavour to release enough funds.

Besong (2014) investigated managing open and distance learning as a tool for enhanced access and balanced development in Cameroon. Three hypotheses were formulated to guide the study. The sample consisted of 252 respondents from a population of 580. Data for the study were collected using open and distance learning enhanced access and balanced development questionnaire (ODLABDQ). Data were analyzed using Pearson Product Moment correlation and population t -test statistics. The hypotheses were tested.05 level of significance. The results of the study revealed that open and distance learning' as a tool for enhanced access significantly correlated with balanced development. The study further revealed that open and distance learning serves as an instrument or tool of mass instruction geared towards balancing development in terms of manpower development, productivity and job enrichment of the beneficiaries and also the society in terms of education for all (EFA).

Oluwalola and Awodiji (2019) investigated availability and utilization of e-learning facilities for management and business courses in universities in Kwara State. Two research questions and two hypotheses guided the conduct of the study. Descriptive survey research design was adopted for the study. The population comprised of 282 lecturers of management and business courses in universities in Kwara state. Random and stratified sample techniques were used to select one hundred management and business lecturers in universities in Kwara State. A questionnaire with Cronbach Alpha reliability of 0.80 was used for the data collection. Descriptive of mean rating was used to answer the research questions while the two hypotheses formulated were tested using One-way ANOVA at 0. 05 level of significance. The findings indicated that e-learning facilities were moderately available (mean = 96.64) while utilization was found occasionally used (mean = 98.16) for teaching and learning activities of business and management courses in the selected universities in Kwara state. It was also revealed that there was no statistically significant difference within the group (F (2, 82, 84) = 1.57, .213 @ p >.05).

Statement of the Problem

One of the basic objective of open and distance learning is to enable working class people have access to education, without affecting their source of livelihood. The greatest concern is whether the aim has been achieved or not. Imperatively, the success of the students is paramount and, requires certain instructional facilities to ensure its delivery. It is one thing to have access to e-instructional facilities and it is another thing to effectively manage them in teaching and learning for effective outcome (Akubueze, 2012). Teachers/lecturers are expected to equip students with needed knowledge for effective academic performance and technical know-how. Most studies consider the state of instructional facilities in schools; rarely do scholars attach poor performance with lack of, management of these facilities. Although studies like that of Makombe,Kihombo, Sesabo, Hodgson andSpours(2010) have lamented on poor performance, they did not link this situation with management of instructional facilities. But there is tendency that there is a strong link between management of instructional facilities and quality teaching and learning process, which can foster better academic performance. The researcher therefore attempt to further this assertion, by investigating how management of instructional facilities was related to academic performance of students of open and distance learning.

Purpose of the Study

The aim of this study was to investigate how management of instructional facilities relates to academic performance of students in open and distance education in Rivers State. Specifically, the study was designed to:

1. To ascertain the extent management of e-learning influences academic performances of students in open and distance education in Rivers State.
2. To investigate the extent management of virtual learning facilities influences academic performance in students of open and distance education in Rivers State.
3. To examine the extent management of classroom space influences academic performance of students in open and distance education in Rivers State.

Research Questions

The following research questions were used to guide the study;

1. To what extent does management of e-learning facilities influences academic performance of students in open and distance education in Rivers State?
2. To what extent does management of virtual learning facilities influences academic performance of students in open and distance education in Rivers State?
3. To what extent does management of classroom space influences academic performance of students in open and distance education in Rivers State?

Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance

1. There is no significant relationship between management of e-learning facilities and academic performance of students in open and distance education in Rivers State.
2. There is no significant relationship between management of virtual learning facilities and academic performance of students in open and distance education in Rivers State.
3. There is no significant relationship between management of classroom space and academic performance of students in open and distance education in Rivers State.

Methodology

This study adopted correlational survey research design. A stratified sampling technique was adopted in selecting a sample of one hundred, and thirty-four (134) of lecturers from University of Port Harcourt and Rivers State University of Science and Technology. A 20-item self-designed questionnaire titled "Management of Instructional Facilities Questionnaire (CIFQ)"and "Academic Performance of Students Questionnaire (APSQ)"was used to generate information for the study.

CIFQ and APSQ consists of two sections A and B. Section A contained simple questions on demographic variables while section B, consists of 20 questions each designed to illicit responses to three research questions. Responses to items on each section were coded along a modified four likert Scale of Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1). The reliability indices of the instruments were established using the test retest. It yielded 0.95and 0.92 showing that the instruments were strongly reliable. Data obtained from the administered instrument were analyzed using SPSS. In answering the research questions, simple regression analysis was used in answering the research questions, while t-test associated with simple regression was implored in testing the hypotheses formulated for the study, at 0.05 level of significance.

Data Analysis

Research Question One: To what extent does management of e-learning facilities influences academic performance of students of open and distance education in Rivers State?

Table 1: Simple Regression Analysis on the Extent Management of E-Learning Facilities Influences Academic Performance of Students in Open and Distance Education in Rivers State

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.781[a]	.610	.608	2.45218

Table 1 revealed that the regression coefficient R was calculated to be 0.781 while the regression squared value was computed to be 0.610. This shows that the extent management of e-learning facilities influences academic performance of students of open and distance education in Rivers State is high and positive. Judging by the coefficient of determination, it shows that61% change in academic performance of students can be explained by management of e-learning facilities, while 39% was accounted by other variables not considered in this study.

Research Question Two: To what extent does management of virtual learning facilities influences academic performance of students of open and distance education in Rivers State?

Table 2: Simple Regression Analysis on the Extent Management of Virtual Learning Facilities Influences Academic Performance of Students in Open and Distance Education in Rivers State

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.797[a]	.635	.633	2.15163

Table 2 revealed that the regression coefficient R was calculated to be 0.797 while the regression squared value was computed to be 0.635. This shows that the extent management of virtual learning facilities influences academic performance of students of open and distance education in Rivers State is high and positive. Judging by the coefficient of determination, it shows that63.5% change in academic performance of students can be explained by management of virtual learning facilities, while 36.5% was accounted by other variables not considered in this study.

Research Question Three: To what extent does management of classroom space influences academic performance of students of open and distance education in Rivers State?

Table 3: Simple Regression Analysis on the Extent Management of Classroom Space Influences Academic Performance of Students in Open and Distance Education in Rivers State

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.801[a]	.641	.639	2.13431

Table 3 revealed that the regression coefficient R was calculated to be 0.801 while the regression squared value was computed to be 0.641. This shows that the extent management of classroom space influences academic performance of students of open and distance education in Rivers State is high and positive. Judging by the coefficient of determination, it shows that64.1% change in academic performance of students can be

explained by management of classroom space, while 35.9% was accounted by other variables not considered in this study.

Test of Hypotheses

HO₁: There is no significant relationship between management of e-learning facilities and academic performance of students in open and distance education in Rivers State.

Table 4: T-Test Associated With Simple Regressionon the Relationship Between Management of E-Learning Facilities and Academic Performance of Students in Open and Distance Education in Rivers State

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.354	.546		6.147	.000
	Management of E-Learning Facilities	.772	.036	.781	21.293	.000

Table 4 revealed that management of e-learning facilities influences academic performance of students of open and distance education by 0.781. The t-test value 21.293 associated with linear regression was statistically significant at 0.000 when subjected to 0.05 alpha level of significance. By implication, the null hypothesis was rejected. Therefore, there is a significant relationship between management of e-learning facilities and academic performance of students in open and distance education in Rivers State.

HO₂: There is no significant relationship between management of virtual learning facilities and academic performance of students in open and distance education in Rivers State.

Table 5: T-Test Associated With Simple Regressionon the Relationship betweenManagement of Virtual Learning Facilities and Academic Performance of Students in Open and Distance Education in Rivers State

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.158	.545		11.301	.000
	Virtual Learning Facilities	.597	.037	.797	16.175	.000

Table 5 revealed that management of virtual learning facilities influencesacademic performance of students of open and distance education displaced by 0.797. The t-test value 16.175 associated with linear regression was statistically significant at 0.000 when subjected to 0.05 alpha level of significance. By implication, the null hypothesis was rejected. Therefore, there is a significant relationship between management of virtual learning facilities and academic performance of students in open and distance education in Rivers State.

HO₃: There is no significant relationship between management of classroom space and academic performance of students of open and distance education in Rivers State.

Table 6: T-Test Associated With Simple Regressionon the Relationship Between Management of Classroom Space and Academic Performance of Students of Open and Distance Education in Rivers State

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.384	.639		11.695	.000
	Classroom Space	.668	.040	.801	19.507	.000

Table 6 revealed that management of classroom space influencesacademic performance of students of open and distance education by 0.801. The t-test value 19.507 associated with linear regression was statistically significant at 0.000 when subjected to 0.05 alpha level of significance. By implication, the null hypothesis was rejected. Therefore, there is a significant relationship between management of classroom space and academic performance of students of open and distance education in Rivers State.

Discussion

From the resultgotten in table 1, it was revealed that management of e-learning facilities influences academic performance of students of open and distance education in Rivers Stateto a high extent. This was emphasized more in table 4, were a significant relationship exist between management of e-learning facilities and academic performance of students of open and distance education. The study carried out by Oluwalola and Awodiji (2019) on availability and utilization of e-learning facilities for management and business courses in universities in Kwara State, revealed that e-learning facilities were available (mean = 96.64) while there was utilization for teaching and learning activities of business and management courses in the selected universities in Kwara state. This result agrees with the present study, since both study recognized the importance of using e-learning in enhancing academic performance of students.

The outcome in table 2 and 5 revealed that a significant relationship exist between management of virtual learning facilities and academic performance of students in open and distance education in Rivers State. In other words, academic performance of students of open and distance education can be explained to a high extent from management of virtual learning facilities. This is in line with Akpan, Etimand Udom(2016) whose study on Virtual Classroom Instruction on Academic Performance of Educational Technology Students in Distance Education, Enugu State, revealed that students' acknowledged that the availability and use of virtual classroom influenced their academic performance. The implication is that the use of virtual learning facilities for distance and open studies will help students understand more, since it is done at their convenient location, which invariably will increase their academic performance.

Furthermore, the result in table 3 and 6 showed that academic performance of students of open and distance education can be explained to a high extent from management of classroom space, meaning that a significant relationship exist between management of classroom space and academic performance of students of open and distance education in Rivers State.The study of Gikonyo, Ndiritu, and Mboroki (2014) on university managers' participation indistance education: the role ofdistance education support facilities revealed that availing necessary support facilities is crucial if adoption of distance education is to be increased in the public universities in Kenya. This agrees with the finding of the present study because the importance of facilities management is key to better academic achievement of students.

Conclusion

Management of instructional facilities and academic performance of students in open and distance educationin Rivers State was examined. Instructional facilities such as e-learning virtual learning and classroom space are some of the facilities that are vital to the academic performance of students in distance education. It was also seen from the study that management of such learning facilities should requires serious attention, in order to utilize it properly for its purpose. It is therefore a wake-up call for all educational stakeholders, including government to contribute to the advancement of education, especially for the open and distance learning, in order for the students to get the best out of it.

Recommendations

1. Classroom space should be highly prioritized in all centers for open and distance learning, as this will make the students more comfortable to learn.
2. Virtual learning facilitates should be made available for students who are not within the study centers available. This will give them the same opportunity to benefits from every lecture delivery, thereby advancing their academic performance.
3. There is need for educational institutions to give more priority in the provision of e-learning facilities through industry-institution collaboration for effective teaching and learning to take place.

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APPENDIX

RESEARCH QUESTION/HYPOTHESIS ONE

REGRESSION
 /DESCRIPTIVES MEAN STDDEV CORR SIG N
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA CHANGE
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT Academic Performance
 /METHOD=ENTER E-Learning Facilities
 /RESIDUALS HISTOGRAM(ZRESID).

Regression

Descriptive Statistics

	Mean	Std. Deviation	N
E-Learning Facilities	13.1000	3.28868	134
Academic Performance	14.3800	3.62628	134

Correlations

		E-Learning Facilities	Academic Performance
Pearson Correlation	E-Learning Facilities	1.000	.781
	Academic Performance	.781	1.000
Sig. (1-tailed)	E-Learning Facilities	.	.000
	Academic Performance	.000	.
N	E-Learning Facilities	134	134
	Academic Performance	134	134

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.781[a]	.610	.608	2.45218	.610	25.419	1	133	.000

a. Predictors: (Constant), E-Learning Facilities

b. Dependent Variable: Academic Performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.354	.546		6.147	.000
	Managementof E-Learning Facilities	.772	.036	.781	21.293	.000

a. Dependent Variable: Academic Performance

RESEARCH QUESTION/HYPOTHESIS TWO

REGRESSION
 /DESCRIPTIVES MEAN STDDEV CORR SIG N
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA CHANGE
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT Academic Performance
 /METHOD=ENTER Virtual Learning Facilities
 /RESIDUALS HISTOGRAM(ZRESID).

Regression

Descriptive Statistics

	Mean	Std. Deviation	N
Virtual Learning Facilities	13.1000	3.28868	134
Academic Performance	14.5267	3.68144	134

Correlations

		Virtual Learning Facilities	Academic Performance
Pearson Correlation	Virtual Learning Facilities	1.000	.797
	Academic Performance	.797	1.000
Sig. (1-tailed)	Virtual Learning Facilities	.	.000
	Academic Performance	.000	.
N	Virtual Learning Facilities	134	134
	Academic Performance	134	134

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.797[a]	.635	.633	2.15163	.635	31.744	1	133	.000

a. Predictors: (Constant), Virtual Learning Facilities

b. Dependent Variable: Academic Performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.158	.545		11.301	.000
	Managementof Virtual Learning Facilities	.597	.037	.797	16.175	.000

a. Dependent Variable: Academic Performance

RESEARCH QUESTION/HYPOTHESIS THREE
REGRESSION
 /DESCRIPTIVES MEAN STDDEV CORR SIG N
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA CHANGE
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT Academic Performance
 /METHOD=ENTER Virtual Learning Facilities
 /RESIDUALS HISTOGRAM(ZRESID).

Regression

Descriptive Statistics

	Mean	Std. Deviation	N
Classroom Space	13.1000	3.28868	134
Academic Performance	14.0400	3.96441	134

Correlations

		Classroom Space	Academic Performance
Pearson Correlation	Classroom Space	1.000	.801
	Academic Performance	.801	1.000
Sig. (1-tailed)	Classroom Space	.	.000
	Academic Performance	.000	.
N	Classroom Space	134	134
	Academic Performance	134	134

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.801^a	.641	.639	2.13431	.641	21.969	1	133	.000

a. Predictors: (Constant), Classroom Space

b. Dependent Variable: Academic Performance

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.384	.639		11.695	.000
	Classroom Space	.668	.040	.801	19.507	.000

a. Dependent Variable: Academic Performance