



Full Length Research

PROBLEMS AND STRATEGIES FOR THE MANAGEMENT OF SCHOOL FACILITIES FOR EFFECTIVE INSTRUCTIONAL DELIVERY IN FEDERAL AND STATE COLLEGES OF EDUCATION IN NORTH CENTRAL STATES OF NIGERIA

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ABSTRACT

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The study investigated problems and strategies for the management of school facilities for effective instructional delivery in federal and state colleges of education in North Central states of Nigeria. Two research questions and hypotheses guided the study. Descriptive research design was adopted for the study. 1,185 respondents, involving 1,092 students, 63 lecturers, 17 staff of works department and 13 management staff selected through simple sampling by balloting were used for the study. A College of Education School Facilities Management Questionnaire (COESFMQ) was used as instrument for data collection. The data collected was analyzed with the aid of mean and standard deviation to answer research questions that guided the study. From the result of the analysis the following findings emerged: Some problems encountered by both lecturers and management staff in the management of school facilities include poor funding, lack of statistical data and poor maintenance culture. The test of hypothesis also revealed that the t-cal of 0.39 is less than the table value of 0.86 at 0.05 level of significance showing that there was no significant difference between the mean ratings of lecturers and management staff of federal and state colleges of education in North Central states of Nigeria on problems encountered in the management of school facilities for effective instructional delivery. The findings also revealed that some of the strategies include: improved funding of education, adequate provision of statistical data and good maintenance culture of facilities. The test of hypothesis also revealed that the calculated t-test value 0.04 at 74 degree of freedom is less than the critical table value of 2.08 at 0.05 level of significance showing that there was no significant difference between the mean ratings of management staff and lecturers from federal and state colleges of education on the strategies to be adopted to improve school facilities for effective instructional delivery. Based on the findings, the following recommendations, among others, were made: Staff of works Department in colleges of education should make sure that the available school facilities are properly maintained to enhance their longevity and functionality in schools; management should appoint capable technical personnel in the school to conduct regular inspection of school facilities. This will help to identify in time the major deficiencies which may affect the normal activities in the school.

Keywords: Management strategies; School facilities; Instructional delivery; Colleges of education; North central states of Nigeria

INTRODUCTION

School facilities constitute the major components in the effective delivery of instruction in the education system. Madumere (2007) defined school facilities as indispensable educational aids that influence academic performance in the school system. According to United Nation Educational Scientific and Cultural Organization (UNESCO) 2008 report, school facilities were highlighted to include school location, school size, area per space, school buildings, classroom accommodation, furniture, libraries, dining area, laboratories, playground, illumination, ventilation, aesthetic, thermal comfort, sport facilities, and toilet facilities. School facilities are seen by Australian Council for Educational Research (2008) as a plan or layout of the building or buildings collectively used for instructional purposes. Here, school facilities are only seen as buildings in the school alone. Similarly, Lawanson and Gede (2011) viewed school facilities as those things that enable the teacher to do his or her work very well and help the learners to learn effectively. According to Lawanson and Gede (2011), type of school facilities include instructional, recreational, residential and general purpose facilities. Instructional facilities according to them include classrooms, classroom seats, laboratories, libraries, experimental equipment, zoological gardens and experimental agricultural farms that are specifically meant for teaching and learning. Recreational facilities include spaces, lawns, fields, pitches and equipment for sports, games and general recreation that are meant to develop a good learning socio-psychological as well as mental environment through relation. Residential facilities include hostels, and hostel facilities, refectory and refectory facilities, staff quarters and other associated facilities meant to provide residential convenience for staff and students. General purpose facilities are facilities that that can be easily converted to uses other than those for which they are being used such facilities in most cases are made of space facilities namely, the developed open space and the underdeveloped open space. The developed open space are spaces used as sporting pitches, field, lawn, school farms, access roads, parking plots among others. Underdeveloped open spaces are all the land area within the legal authority of the institution which is yet to be developed into specific uses. School facilities in this context are all the things that are needed for effective teaching-learning process to take place in school.

Instructional delivery, according to Anita and Charles (2011), is a structured, systematic and effective methodology for teaching academic skills. In a similar

manner, Bligh (2000) viewed instructional delivery as a systematic method of teaching with emphasis on proceeding in small steps, checking for students' understanding and achieving active and successful participation by all students. Instructional delivery in this context refers to an organized manner of transmitting knowledge and skills to students in schools. Effective instructional delivery according to Bede-Blaise and colleagues (2015) embraces all human interactive skills employed by the teacher to promote or facilitate learning in a class room situation thereby leading to improve performance on the part of the learner (Bede-Blaise *et al.*, 2015). This means effective instructional delivery is a process in which teachers apply repertoire of instructional strategies to communicate and interact with learners around academic content, and to support student's engagement for better learning outcome in colleges of education in North Central states of Nigeria with facility management in view.

Facilities management is the application of scientific method in the planning, organizing, decision-making, coordinating and controlling of the physical environment of learning for the actualization of educational goals and objectives (Asiabaka, 2008). This implies that school facilities management involves keeping record of the facilities, supervising the facilities, planning the facilities, motivating students and teachers to participate in facilities maintenance and evaluating the available facilities in schools especially colleges of education, for effective instructional delivery. School facilities management, therefore, becomes of paramount importance. Olagboje (2000) defined school facilities management as any work carried out on any component of the school plant with a view to keeping it in good working condition. School facilities management in this realm involves periodic assessment of the working condition of facilities in colleges of education for effective instructional delivery. Asiabaka (2008) conceptualized school facilities management as the application of scientific method in planning, organizing, decision-making, coordinating and controlling of the physical environment of learning for the actualization of educational goals and objectives. This means that school facilities management refers to the logical organization and maintenance of physical equipment within the school, including those in colleges of education, with effective instructional delivery in view.

Literature tends to state some of the problems that

could be responsible for low quality of school facilities in colleges of education. These, according to Earthman and William (2002), include increase in enrolment without proportionate increase in facilities, poor funding of the education sector, poor maintenance culture of the college administrators, careless use of facilities by staff and students. In the same vein, Filardo (2008) asserts that purchase of poor quality equipment, poor execution of projects, mismanagement of funds by college administrators, poor attention to school plant management and non-participation of the private sector in the provision of facilities are all responsible for the apparent low quality of school facilities. From the foregoing, it is evident that most of the factors responsible for low quality of facilities in colleges of education are management factors, a correction of which will ensure effective instructional delivery. Inadequate fund was seen by Oyedeji (2000) as one of the challenges facing effective management of teaching resources while Oyesola (2000) blamed lack of accurate statistical data of the teaching resources, poor maintenance culture, absence of policy on maintenance, management and utilization of teaching resources, and inadequate facilities and instructional materials as some of the problems encountered in the effective management of teaching resources.

As regards strategies to be adopted for the management of school facilities for effective instructional delivery, Oyedeji (2000) suggested that funds allocated for the procurement of teaching resources should not be misused by teachers or school administrators; while Oyesola (2000) suggested that proper keeping of statistical data of teachers and learners will enhance effective management and utilization of teaching resources. Nwokoro (2008) added that more qualified teachers should be recruited to reduce the workloads on the few qualified teachers and increase the ability to manage and use teaching resources while Ivowi (2005) maintained that school administrators and teachers should be encouraged to make use of resource persons in the class to clarify issues and make learning concrete. Owen and Valenky (2007) also opined that school facilities could be properly managed and improved through involving the private sector in the provision of facilities, basing students' admission on available facilities, improved funding of the education sector and regular maintenance of facilities. Owen and Valenky (2007) further added that careful use of facilities by staff and students, proper management of funds by school administrators and allowing trained personnel to

handle facilities in schools are strategies to be adopted to improve the management of school facilities for effective instructional delivery in schools. For the purpose of this study, the choice to investigate the problems and strategies for the management of school facilities for effective instructional delivery was made because the facilities available to colleges of education in north central states seem not to be properly managed because of their physical appearance.

Colleges of education in North Central states of Nigeria are selected owing to the observation of Olaniyonu (2006) that mismanagement of school facilities seem to be on the high side in the Colleges of Education in the region which resulting in ineffective instructional delivery. Therefore, the extent of problems encountered in facility management and strategies to be adopted for management of these facilities for effective instructional delivery need to be investigated. However, the basis for the worry in this study is to establish the problems and strategies for the management of school facilities for effective instructional delivery in colleges of education in north central states of Nigeria. Thus, the researcher is interested in finding out the place of school facilities for effective instructional delivery in colleges of education in north central states of Nigeria with regard to the problems encountered in their management and strategies to be adopted for improving the management of school facilities for effective instructional delivery in north central states of Nigeria.

In spite of efforts made by the government to ensure that school facilities are in a good working condition in Nigerian schools in general and colleges of education in particular for effective instructional delivery, the level of success recorded in these regards still seem to be poor.

It has been observed by some researchers such as Earthman and William that increase in enrolment without proportionate increase in facilities, poor funding of the education sector, poor maintenance culture of the college administrators, careless use of facilities by staff and students without any tangible evidence to substantiate their claims. In the same vein, Filardo (2008) also assumes that purchase of poor quality equipment, poor execution of projects, mismanagement of funds by college administrators, poor attention to school plant management and non-participation of the private sector in the provision of facilities to be responsible for the apparent low quality of school facilities without empirical back up.

It has also been observed by researcher that lecturers and management staff from both federal and state colleges of education in north central states of Nigeria seem to encounter similar problems such as inadequate funding, poor maintenance culture, and insufficient qualified technologists in the management of school facilities for effective instructional delivery. This is because; the facilities that do facilitate instructional delivery in both schools are of low standard such that office equipment that are used are mostly outdated and obsolete. It has also been observed by Owen and Valenky () that some of the strategies such as regular maintenance of facilities, good maintenance culture by lecturers and students, better policies on maintenance of facilities among others, recommended for improving school facilities in colleges of education in north central states seem not to be strictly adhere to. This is because the state of school facilities in colleges of education in the area is not appreciable for effective instructional delivery. The problem of the study put in question form is: What are the problems and strategies to be adopted for improving school facilities for effective instructional delivery in federal and state colleges of education in North Central states of Nigeria?

The main purpose of the study was to find out the problems and strategies for the management of school facilities for effective instructional delivery in colleges of education in north central states of Nigeria. Specifically, the study sought to:

1. Find out the problems encountered in the management of school facilities for effective instructional delivery by the federal and state colleges of education in North Central states of Nigeria.
2. Determine the strategies to be adopted to improve school facilities for effective instructional delivery.

The following research questions guided the study:

1. What are the problems encountered by lecturers and management staff in the management of school facilities in federal and state colleges of education in North Central states of Nigeria for effective instructional delivery?
2. What are the strategies to be adopted by lecturers and management staff in colleges of education in

North Central states of Nigeria for improving school facilities for effective instructional delivery?

The following null hypotheses were formulated to guide the study and were tested at 0.05 levels of significance:

- **Ho₁**: There is no significant difference between the mean ratings of lecturers and management staff of federal and state colleges of education of their opinions on the problems encountered in the management of school facilities for effective instructional delivery.
- **Ho₂**: There is no significant difference between the mean ratings of lecturers and management staff of federal and state colleges of education of their opinions on the strategies to be adopted to improve school facilities for effective instructional delivery.

MATERIALS AND METHODS

MATERIALS

The study used College of Education School Facilities Questionnaire (COESFQ) based structured questionnaire for the survey. College of Education School Facilities Questionnaire (COESFQ) is a 60-item instrument structured on a four-point option. It is clustered into 4: Clusters A and B. Cluster A dealt with items on problems encountered by Federal and State Colleges of Education in the Management of School Facilities for effective Instructional Delivery with response pattern of Strongly Agree (SA): 4 points, Agree (A): 3 points, Disagree (D): 2 points and Strongly Disagree (SD): 1 point. Cluster B was on Strategies for Improving the Management of School Facilities for effective Instructional Delivery and has response pattern of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The instrument was developed from information generated from review of literature.

Study Area

The study was carried out in North Central states of Nigeria. The North Central states comprises six states: Kwara, Kogi, Niger, Benue, Plateau, Nassarawa and then, the FCT, Abuja. The area has five federal and nine state colleges of education totalling 14 colleges of education as follows: Kwara has three (3), Kogi has three (3), Niger has two (2), Benue has two (2), Plateau

has two (2), Nassarawa has one (1) and FCT Abuja has one (1) (Source: NCCE, March, 2014).

Colleges of education in this region are characterized majorly with old buildings; school facilities available for instructional delivery are few and seem not to be well managed. North Central states were selected for the study due to the urgent need for improvement of education, especially teacher education in the North due to their perceived backwardness in education.

Methods

The design of the study was descriptive research design. Descriptive research design, according to Ali (2006), seeks to describe and interpret what is. It is concerned with conditions or relationships that exist, opinions that are held, processes that are going on, effects that are evident or trends that are developing in their natural settings and involving no manipulation of any variable. It is primarily concerned with the present, although it often considers past events and influences as they relate to current conditions. The descriptive research design is ideal for this study because the study involved collection of data from management staff, lecturers, staff of works department and students of colleges of education with a view to determining the management of school facilities for effective instructional delivery in public colleges of education in North Central states of Nigeria.

The study meets the requirement for descriptive design because the researcher only described the problems encountered in the management of facilities for effective instructional delivery and ways of improving facilities for effective instructional delivery in public colleges of education in North Central States of Nigeria.

The population of the study comprised of 14 colleges of education which include 5 federal and 9 state owned colleges of education in north central states of Nigeria with the total respondents of 61,641 made up of 727 management staff, 3,128 lecturers, 920 staff of works department and 56,866 students (Federal Ministry of Education, 2014). The choice of the population is based on the fact that these staff members/students are responsible for the management of school facilities for effective instructional delivery and are in the best position to describe the situation in the schools.

Simple sampling by balloting was used in the selection of five states in North Central states of Nigeria. These states include Kogi, Plateau, Kwara, Niger and Nassarawa respectively. Ballot papers were used in the selection of two federal and three state owned colleges

of education totalling 5(40%) in North Central states of Nigeria. These five colleges of education includes Federal College of Education, Okene, Kogi state, Federal College of Education, Pankshin, Plateau state, Kwara state College of Education, Ilorin, Kwara state, State College of Education, Minna, Niger state and Nassarawa State College of Education, Akwanga, Nassarawa state respectively. The use of 40% was a recommendation by Nwana (1998) who stated that when population for the study is few, 40% is appropriate for the sample. Simple sampling was used to categorize these colleges of education into federal and state to take care of ownership of these colleges. Balloting was used to draw 5% sample of 1,092 students, 63 lecturers, 14 management staff and 17 staff of works department totaling 1,185 respondents. The use of 5% was a recommendation by Ali (2006) that when the population is large, the sample of the study would be between the ranges of 5% to 20%.

The instrument (COESFMQ) used for data collection in this study were face-validated by three experts, two from Educational Administration and Planning and one from Library and Information Science Department, all in the Faculty of Education, University of Nigeria, Nsukka. The experts examined the instrument on the bases of their relevance, format suitability, and clarity. Based on the validates' corrections and comments, amendments were made and the final copies of the instruments were produced and trial tested in Peace land College of Education, Enugu state of Nigeria that was not part of study's sample.

To determine the reliability of the instrument (COESFMQ), a trial test was conducted using 30 administrative staff and 30 lecturers from three Colleges of Education in Enugu state of Nigeria which is outside the study area. To establish the internal consistency, the instrument (questionnaires) was administered on these respondents and the responses obtained on the basis of COESFMQ was analyzed using Crunbach Alpha correlation co-efficient and the result showed the following cluster reliability: Cluster A = 0.927; Cluster B = 0.890 with an overall reliability index of 0.94. These are high enough for the items to be considered reliable for the study.

Direct delivery and retrieval method was used to administer the questionnaires on the respondents. The services of four research assistants were employed. The research assistants had briefing with the researcher on the purpose of the study and on how to ensure effective response from the respondents to

ensure completion and return of the copies of the questionnaires that were given to them. The research assistants went out to administer and eventually retrieved all the questionnaires that were given to them in compliance with the earlier briefing with them by the researcher.

The data collected were analyzed using descriptive and parametric statistic (mean, standard deviation and t-test). Specifically, mean and standard deviation were used for research questions that guided the study. In the analysis of research questions that guided the study, responses with mean of 0.50-1.49 were rated Strongly Disagree (SD), Responses with mean of 1.50 – 2.49 were rated Disagree (D), Responses with mean of 2.50-3.49 were rated Agree (A), Responses with mean of 3.50-4.00 were rated Strongly Agree (SA) respectively. The t-test statistic was used to test the null hypotheses at 0.05 alpha level.

RESULTS AND DISCUSSION

This chapter presents the results of the data analysis based on the two research questions and the two null hypotheses that guided the study. The major findings of the study were also presented in this chapter

Research question one:

What are the problems encountered in the management of school facilities in federal and state colleges of education in North central state of Nigeria for effective instructional delivery?

Table 1: Mean and Standard Deviation of Responses of Lecturers and Management staff on Problems Encountered in the Management of School Facilities for Effective Instructional Delivery

S/N	Items on strategies to be adopted for improving school facilities	Management Staff = 13		Lecturers = 63	
		X ± SD	Dec.	X ± SD	Dec
14	Improve funding of the education sector	3.38±1.50	A	3.76± 0.75	SA
15	Provision of accurate statistical data on the teaching resources	2.61±1.19	A	3.12± 0.70	A
16	Regular maintenance of facilities	3.23 ± 1.48	A	0.68± 0.77	SA
17	Better policies on management for proper	2.69± 1.25	A	2.11± 0.68	A

18	accountability Provision of adequate equipment for ICT centre	3.15± 1.46	A	3.65±0.78	S.A
19	Orientation of lecturers to improve capacity in order to manage teaching resources	2.72± 1.30	A	3.17±0.73	A
20	Building of more lecture theatres	3.07±1.44	A	3.66 ±0.78	SA
21	Quick implementation of police	2.76±1.30	A	3.17 ±0.73	A
22	Orientation of lecturers on the need for initiatives	2.84±1.34	A	3.63 ±0.78	SA
23	Promotion of accountability of financial activities in school	2.69±1.25	A	3.20 ±0.74	A
24	Building of more classrooms to accommodate all the admitted candidates	3.15±1.46	A	3.57±0.79	SA
25	Provisional of sufficient textbooks to cover all areas of subjects	2.84±1.34	A	3.19±0.73	A
26	Government should provide adequate infrastructure	3.07±1.44	A	3.20±0.74	SA
27	There should be increase of lecturers' motivation	2.84±1.34	A	3.20 ±0.78	SA
28	Provision of adequate facilities	2.84±1.34	A	3.55± 0.79	A
29	Lecturers should be better motivated for instructional delivery	2.84±1.34	A	3.26 ± 0.26	A
30	Careful use of facilities by students	2.84±1.34	A	3.26±0.76	A
Cluster mean		2.93±1.30	A	3.42±0.63	A

Key: Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD)

Data presented on Table 1 shows the mean and standard deviations of management staff and lecturers of federal and state colleges of education on problems encountered in the management of school facilities for effective instructional delivery.

Items 1, 3, 5, 7, 9, 10, 11 and 13 were rated by management staff as 4.00±0.00, 4.00±0.37, 3.92±0.27, 3.84±0.37, 3.53±0.51, 3.76±0.43 and 3.53±0.51

respectively. Based on the data analysis, it was revealed that 8 out of 13 items were strongly agreed by management staff as problems encountered in the management of school facilities for effective instructional delivery.

Items 2, 4, 6, 8 and 12 were also rated by management staff as 3.07 ± 0.27 , 3.07 ± 0.27 , 3.00 ± 0.40 , 3.30 ± 0.48 and 3.46 ± 0.51 respectively. Based on the data analysis, it was revealed that 5 out of 13 items were merely agreed by management staff as problems encountered in the management of school facilities for effective instructional delivery in colleges of education in North Central states of Nigeria.

Items 3, 5, 7, 9 and 13 on the other hand were rated by lecturers as 3.53 ± 0.79 , 3.58 ± 0.79 , 3.61 ± 0.79 , 3.61 ± 0.79 , 3.53 ± 0.79 and 3.61 ± 0.79 respectively. Based on the analyzed data, it was revealed that lecturers strongly agreed that 5 out 13 items were problems encountered in the management of school facilities for effective instructional delivery in colleges of education in North Central states of Nigeria.

Items 1, 2, 4, 6, 8, 10 and 12 were also rated by lecturers as 3.15 ± 0.75 , 3.15 ± 0.75 , 3.22 ± 0.75 , 3.15 ± 0.74 , 3.22 ± 0.75 , 3.15 ± 0.84 and 3.17 ± 0.73 respectively. Based on the data analysis, it was revealed that 7 out of 13 items were merely agreed by lecturers as problems encountered in the management of school facilities for effective instructional delivery in colleges of education in North Central states of Nigeria.

Hypothesis one

There is no significant difference between the mean ratings of lecturers and management staff from federal and state colleges' of education on problems encountered in the management of school facilities for effective instructional delivery.

Table 2: Summary of t-test of problems encountered in the management of school facilities for effective instructional delivery

Variables	N	X	SD	DF	T-cal	Table value	Decision
Management staff	13	3.38	1.50	74	0.39	0.86	Accept
Lecturers	63	3.76	0.075				

Table 2 above presents the summary of t-test on problems encountered in the management of school facilities for effective instructional delivery in North

Central states of Nigeria. It was observed from the table that the calculated t-test is 0.39 at 74 degree of freedom. The t-cal of 0.39 is less than the table value of 0.86 at 0.05 level of significance. This means that the null hypothesis of no significant difference was accepted. In other words, there is no significant difference between the mean ratings of lecturers and management staff of federal and state colleges of education in North Central states of Nigeria on problems encountered in the management of school facilities for effective instructional delivery. The finding is in line with Emetarom (2004) who found that funds allocated to tertiary institutions for proper maintenance of available facilities is poor which contributes to over usage of available facilities making them to be susceptible to constant tear and wear and hence, their depreciation. Bukola (2012) found that the financial support of the tertiary institutions is not adequate and that students and staff maintenance culture contributes to high deterioration of the available facilities.

Research question two

What are the strategies to be adopted for improving the management of school facilities for effective instructional delivery in federal and state colleges of education in North central states of Nigeria?

Table 3: Mean and standard deviation responses of lecturers and management staff on strategies to be adopted for improving schools facilities for effective instructional delivery

S/N	Items on strategies to be adopted for improving school facilities	Management Staff = 13		Lecturers = 63	
		X ± SD	Dec.	X ± SD	Dec.
14	Improve funding of the education sector	3.38±1.50	A	3.76±0.75	SA
15	Provision of accurate statistical data on the teaching resources	2.61±1.19	A	3.12±0.70	A
16	Regular maintenance of facilities	3.23±1.48	A	0.68±0.77	SA
17	Better policies on management for proper accountability	2.69±1.25	A	2.11±0.68	A
18	Provision of adequate equipment for ICT centre	3.15±1.46	A	3.65±0.78	SA
19	Orientation of lecturers to	2.72±1.30	A	3.17±0.73	A

	improve capacity in order to manage teaching resources				
20	Building of more lecture theatres	3.07±1.44	A	3.66±0.78	SA
21	Quick implementation of police	2.76±1.30	A	3.17±0.73	A
22	Orientation of lecturers on the need for initiatives	2.84±1.34	A	3.63±0.78	SA
23	Promotion of accountability of financial activities in school	2.69±1.25	A	3.20±0.74	A
24	Building of more classrooms to accommodate all the admitted candidates	3.15±1.46	A	3.57±0.79	SA
25	Provisional of sufficient textbooks to cover all areas of subjects	2.84±1.34	A	3.19±0.73	A
26	Government should provide adequate infrastructure	3.07±1.44	A	3.20±0.74	SA
27	There should be increase of lecturers' motivation	2.84±1.34	A	3.20±0.78	SA
28	Provision of adequate facilities	2.84±1.34	A	3.55±0.79	A
29	Lecturers should be better motivated for instructional delivery	2.84±1.34	A	3.26±0.26	A
30	Careful use of facilities by students	2.84±1.34	A	3.26±0.76	A
	Cluster mean	2.93±1.30	A	3.42±0.63	A

Key: Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD), Dec = decision, X±SD = mean ±standard devian

Data presented on Table 3 above showed the mean ratings and standard deviations of management staff and lecturers of federal and state colleges of education on strategies to be adopted to improve the management of school facilities for effective instructional delivery.

Items 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29 and 30 were rated by management staff as 3.38±1.50, 2.61±1.19, 3.23±1.48, 2.69±1.25, 3.15± 1.46, 2.76±1.30, 3.07±1.44, 2.84±1.34, 2.69±1.25, 3.15 ±1.46, 2.84±1.34, 3.07±1.44, 2.84±1.34, 2.84±1.34 and 2.84±1.34 respectively. Based on the data analysis, it was revealed that the entire 17 items were strongly

agreed by management staff as strategies to be adopted to improve the management of school facilities for effective instructional delivery in colleges of education in North Central states of Nigeria.

Items 14, 16, 18, 22, 24, 26 and 28 were rated by lecturers as 3.76±0.75, 3.68±0.77, 3.65±0.78, 3.66±0.78, 3.63±0.78, 3.57±0.79, 3.65±0.78 and 3.55±0.76 respectively. Based on the data analysis, it was revealed that 7 out of 17 items were rated by lecturers to be strongly agreed as strategies to be adopted for improving the management of school facilities for effective instructional delivery in colleges of education in North Central states of Nigeria.

Items 15, 17, 19, 21, 23, 25, 27 and 29 were also rated by lecturers as 3.12±0.70, 3.11±0.68, 3.17±0.73, 3.17±0.73, 3.20±0.74, 3.19±0.73, 3.20±0.74 and 3.26±0.76 respectively. Based on the data analysis, it was revealed that 10 out of 17 items were agreed by lecturers as strategies to be adopted to improve the management of school facilities for effective instructional delivery in colleges of education in North central states of Nigeria.

Hypothesis two

There is significant difference between the mean ratings of lecturers and management staff from federal and state colleges of education on the strategies to be adopted to improve school facilities for effective instructional delivery.

Table 4: Summary of t – test of strategies to be adopted to improve school facilities for effective instructional delivery

Variables	N	X	SD	DF	T-cal	Table value	Decision
Management staff	13	3.38	1.50	74	0.04	2.08	Accept
Lecturers	63	3.76	0.075				

Table 4 above presents the summary of t-test analysis on strategies to be adopted for improving school facilities for effective instructional delivery in federal and state colleges of education in North Central states of Nigeria. It was observed from the table that the calculated t-test value 0.04 at 74 degree of freedom is less than the critical table value of 2.08 at 0.05 level of significance. The null hypothesis of no significant difference was accepted. In other words, there is no significant difference between the mean ratings of management staff and lecturers from federal and state colleges of education on the strategies to be adopted to

improve school facilities for effective instructional delivery. This finding is in line with Godfrey and Anih (2010) who reported that school should not be over crowded. Lawanson and Gede (2011) advocated for financial contributions from various sources, particularly, local community and individuals. Asiabaka (2008) suggested that school heads should cultivate school facilities maintenance culture.

CONCLUSION

From the findings of the study and discussion that followed, the study was concluded by researcher that the problems encountered by management staff and lecturers from both federal and state colleges of education in north central states of Nigeria for effective instructional delivery include; inadequate funding, lack of statistical data of the teaching resources, inadequate equipment for ICT centres, poor maintenance culture, poor policy on maintenance of teaching resources and overcrowded lecture halls respectively.

The following recommendations are made in the light of the major findings and conclusion:

1. Staff of works Department in colleges of education should make sure that the available school facilities are properly maintained to enhance their longevity and functionality.
2. Government should budget adequate fund to education sector as stipulated by UNESCO (26% of the total budget) to ease the assistance of federal and state colleges of education to enable their management overcome some of the problems that hinder the achievement of educational objectives in schools.
3. Capable technical personnel for facility inspection should always be engaged for regular inspection of school facilities to help in timely identification of major deficiencies which may affect the normal activities in the school.

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CONFLICT OF INTEREST

None declared.

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Authors' contributions

SL, EC and IML conceived and designed the study, carried out all field work, interpreted the data and wrote the initial manuscript. Both authors managed the literature searches, revised the manuscript and approved the final manuscript.