MAINTENANCE STRATEGIES FOR BUSINESS EDUCATION TEACHING FACILITIES IN TERTIARY INSTITUTIONS

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Abstract

The study assessed the maintenance strategy commonly put in place for Business Education teaching facilities in public Tertiary institutions in Kwara State, Nigeria. The purpose of the study was to find out the state of the teaching facilities, and the type of maintenance strategies adopted. To achieve the purpose of the study, three research questions and two hypotheses were formulated to guide the study. The study adopted a descriptive survey research design using all the lecturers and students of business education departments in public tertiary institutions in Kwara State. Data were collected using researchers' designed questionnaire tagged Maintenance Strategies for Business Education Facilities Questionnaire (MSBEFQ). The mean, percentage, as well as standard deviation statistical tools were used to answer the research questions while independent sample t-test was used to analyze the null hypotheses. The findings revealed that business education facilities in most of the institutions are generally in a state of disrepair. There was low maintenance of teaching facilities in business education departments. Both lecturer and student respondents were in agreement as to the low level of maintenance of business education facilities in public tertiary institutions in Kwara State. Lecturer and student respondents were positively in agreement with the suitable maintenance strategy useful for business education facilities. It is recommended that departmental heads should develop appropriate maintenance strategy/ policies and make regular checks by inspecting the facilities as a routine, carry out regular servicing of the electronic gadgets, inculcate good maintenance strategy and ensure that adequate money is allocated in the departmental budget for effective maintenance of the facilities.

Keywords: Strategies, teaching facilities, maintenance

Introduction

The development of effective program for teaching of business subjects by tertiary institutions require a great deal of attention to the school facilities needed for good instructions. Many educational institutions and particularly business education professionals are becoming agitated about issues such as the look-worm attitude towards maintenance of ageing teaching equipment, pilfering and vandalism of training materials as well as the cost of maintaining them. Observation of Business education facilities tend to indicate that school administrators do not pay any serious attention to their maintenance. Many of the public teaching facilities are left to rot away without attention. There is no doubt that teaching facilities are the vital organs for effective and efficient functional education. The role of teaching facilities and equipment in ensuring the attainment of the goal and objective of teaching cannot be over-emphasized. The

teaching facilities can only be optimally and efficiently used only when they are adequately utilized and maintained. Experience has shown that the quality of facilities has direct impact not only on educational outcomes but on the well-being of students and teachers. There is equally a growing awareness of the role educational facilities can play in shaping attitudes towards the environment, school equipment and tools and the contributions they can make towards school image and goal.

The development of an effective program for teaching of business subjects in tertiary institutions is centered on the provision of adequate and functional teaching facilities and equipment. Teaching equipment needed requires a great deal of attention for good instruction. Infrastructural development is seen in many quarters as the bedrock of any development in modern world. Without a strong maintenance culture of educational facilities, efforts at providing infrastructural facilities and equipment will amount to waste. Many business education professionals and particularly tertiary educational institutions are becoming concerned about issues relating to maintenance due to breakdown during teaching and vandalism of training materials as well as related cost of maintenance (Hinum, 2014).

The quality of facilities too, has impact not only on educational outcomes but on the well-being of students and teachers. There is a growing awareness of the important role training facilities can play in the life of trainees. Adedokun (2011) observed that it is not enough for facilities to be put in place, but it is more important to see how these facilities are adequately and properly maintained so that the purpose for which they are meant would be accomplished.

The general attitude of many people in Nigeria towards public facilities leaves much to be desired. Many people handle public school properties carelessly. The attitude of people towards public facilities is that it does not belong to anybody (Adeleye, 2009). In many cases, facilities that were meant to benefit the masses are left to rot away; being wasted without putting it into any good use; as people are not interested in making such facilities sustainable. The result according to Adedokun (2011) is that public facilities do not last long due to lack of maintenance. The implication of this is that without a strong maintenance strategy, infrastructural facilities will not last and amount to waste of money expended. The result of this is that, teaching and learning will not be effective and student will not be able to attain adequate knowledge.

The quality of instructions produced by teachers and the academic achievement of students of any institution is dependent on several factors of which school facilities is paramount. The extent to which members of a department value and take care of business education facilities is determined by the belief of business educators themselves about the worth and significance of the school facilities to goal achievement. The general attitude towards the maintenance of the departmental facilities in turn, determines to some extent, the efficiency in the use, and effectiveness of the teaching facilities supporting the academic program and satisfying the needs of the users including members of the local community. Uchendu (2013) said that one of the fundamental ways of ensuring the optimum utility of available resources is through adequate maintenance. The maintenance strategy of any business education department speaks volumes about such a department. The general appearance and layout of the facilities in the department constitute the basis upon which members of the public pass their judgment about the academic performance going on in the business education department.

The word maintenance, according to Tijani (2016), means preserving and keeping in good working order, as near as possible, in their original state, the business facilities. Maintenance requires keeping facilities in proper condition, care or upkeep and taking steps to avoid break down. By implication, maintenance means keeping in good working order or shape all business education equipment, facilities and materials in such a way that it will benefit students and teacher and also lead to attainment of the educational objective Maintenance is

described by Adedokun (2011) as means of correcting deficiencies that have developed as a result of age and use. Infrastructure is a generic term for basic facilities, installations, equipment, tools and materials needed for the facilitation of teaching and learning.

The good standard and quality of a business education program, or any program for that matter, is dependent on the provision, utilization and maintenance of educational facilities. Asiyai (2012) opined that educational curriculum in tertiary institutions cannot be sound and well operated with poor and badly managed school facilities. The business education facilities and equipment that facilitate effective teaching and learning include: Air conditioned business education laboratory , appropriate desks and chairs, electrical equipment and sockets, sets of computers, printers, scanners, uninterrupted power supply (UPS), photocopiers (color and black), duplicator, calculating, adding/listing/subtracting machine, accounting machines, word processor, franking machine, shredding machine, guillotine/mail sorter, folding and inserting machines, stapler, punching machine, dating, numbering and stamping machine, weighing machine, addressing machine, self-adhesive, light box, wall clock, communication gadgets (e.g. telephone, internet facilities, telex, fax machine, printer, video, television), filing equipment among others.

The Nigeria tertiary institutions, school enrolment has continued to increase. This has call for a corresponding increase in school facilities for teaching and learning. Another major factor is underfunding; which has not made the government to do much in procuring the required school facilities. Therefore, it is important to take the issue of maintenance of business education facilities very seriously. In the findings of Balogun (2013), government has been giving close attention to the procurement and erection of infrastructures through the Tertiary Education Trust Fund (TETFUND) but proper maintenance was missing in the process. Many business education departments have been found to bedevil by inadequate maintenance of few existing ones on regular basis to make them functional always and long lasting. For this reason, Chuke (2003) recommended maintenance strategy in all schools by having resident maintenance officer or office equipment technician to constantly put the equipment and facilities in good working condition. Where this is done, breakdown of machines during lessons will be minimized or completely absent. The study of Asiya (2012) revealed that the condition of school facilities has a strong effect on academic performance of students. Lazarus (2010) adds that it is unfortunate that at times maintenance is accorded little or no merit and that failure to maintain properly often results in large and unbudgeted expenditure. Umar (2013) stressed that the quality and quantity of educational facilities available within an educational system positively correlates with the quality and standard of the educational system. When facilities for the teaching of business subjects are not in good working condition there will be a substantial wastage of time resources on repair and rework as well as delays due to breakdowns of equipment and tools during lessons. This will, no doubt, affect delivery of teaching and learning process. This is the condition of most business education facilities in public tertiary institutions in Kwara State. Poor maintenance of school facilities tends to tarnish the school image and dampen the morale of teachers and students. Alonsabe (2011) believe that the current negative maintenance culture in our schools can be reshaped by heads of business education departments through adequate encouragement. This is to say that positive or healthy maintenance culture can be promoted by school administrators. Any meaningful attempt at changing from negative to positive one should start with the head of department's understanding of the maintenance culture and recognizing which aspect of it need to be changed and which ones to retain. By studying and understanding the present culture, and being convinced that there is a need for change, they should be able to take appropriate actions.

Statement of the Problem

The researchers' observation during visits to some of the Business Education departments in Kwara State public tertiary institutions reveals that many facilities are in a state of disrepair. There were broken doors, typing chairs and desks, computers, photocopying machines, typewriters and many other types of teaching equipment were in a pitiable working condition. Many of the electrical sockets were not functioning. It appears adequate attention was missing in the maintenance of business education facilities. It is expected that business education facilities would be in a good working condition all the time to enhance teaching and learning. The problem of the study is to determine maintenance strategy of business education facilities in tertiary institutions in Kwara State.

Objective of the Study

The main objective of the study is to:

(a) Assess the current state of business education facilities in public tertiary institutions in Kwara State, Nigeria.
(b) Assess state of maintenance of business education facilities by school administrators of public tertiary institutions in Kwara State.
(c) Determine the strategies suitable for effective maintenance of business education facilities in public tertiary institutions in Kwara State.

Research Questions

The following research questions are formulated to guide the study:

(a) What is the current state of business education facilities in public tertiary institutions in Kwara State?
(b) What is the state of maintenance of business education facilities in public tertiary institutions in Kwara State?
(c) What maintenance strategy is suitable for business education facilities in tertiary institutions in Kwara State?

Research Hypotheses

Ho_1 There is no significant difference between the mean rating of lecturers and students on the level of maintenance of business education facilities in public tertiary institutions.

Ho_2 There is no significant difference between the mean rating of lecturers and students on the strategies suitable for maintenance of business education facilities in public tertiary institutions.

Methodology

The study adopted a descriptive survey research design. The area of the study was Kwara State tertiary institutions. The population of the study consisted of 60 lecturers and 1,200 graduating business education students in the five public tertiary institutions in Kwara State. The instrument used consists of a structured questionnaire with fifty-five (55) items. The scale for assessment consists of a numerical value of Very adequate (4), Adequate (3), Fairly adequate (3) and Not adequate (1). The entire lecturer population (60) was used while 260 students were sampled. The study used a quantitative research approach, percentages, arithmetic mean and standard deviation to answer the research questions. The independent sample t-test statistics was adopted to test the null hypotheses at 0.05 level of significance. An item with a mean value of 2.50 and above was adjudged as adequate maintenance of business education facilities while an item rated below a mean of 2.49 and below indicates an inadequate maintenance of business education facilities.

Results

Research Question 1.What is the current state of repairs of Business Education facilities in public tertiary institutions?

Table 1 Current State of repairs of Business Education facilities in public tertiary institutions

		LECTURERS				STUDENTS			
		Repairable		Disrepair		Repairable		Disrepair	
	Facilities	F	%	F	%	F	%	F	%
1	Word processing Laboratory	20	33.3	40	66.6	40	15.4	220	84.6
2	Typing pool/Shorthand laboratory	25	41.7	35	58.3	56	21.5	204	78.5
3	Model Office	8	00.0	52	100	150	57.7	110	42.3
4	Typing desks	25	41.7	35	58.3	62	23.8	198	76.2
5	Typing chairs	25	41.7	35	58.3	61	23.5	199	76.5
6	Instructor's desk	12	20.0	48	80.0	61	23.5	199	76.5
7	Desk-top computers	25	41.7	35	58.3	80	30.8	180	69.2
8	Electric/selectric typewriters	5	8.3	55	91.6	15	5.6	245	94.4
9	Demonstration stand	15	25.0	45	75.0	150	57.7.	110	42.3
10	Printers	25	41.7	35	58.3	120	47.0	140	53.0
11	Filing Cabinets	25	41.7	35	58.3	150	57.7	110	42.2
12	Photocopier	24	40.0	36	60.0	90	34.6	170	65.4
13	Scanner machine	15	25.0	45	75.0	80	38.5	180	61.5
14	Overhead Projector	15	25,0	45	75.0	40	38.4	220	84.6
15	Television	12	20.0	42	80.0	40	15.4	220	84.6
16	Fax Machine	6	10.0	54	90.0	120	46.2	140	53.8
17	Laminating Machine	12	20.0	42	80.0	120	46.2	140	53.8
18	Binding Machine	6	10.0	54	90.0	120	46.2	140	53.8
19	Radio Cassette	6	10.0	29	90.0	150	57.7	110	42.3
20	Uninterrupted Power supply (UPS)	25	41.7	35	58.3	40	15.4	220	84.6
21	Stabilizer	25	41.7	35	58.3	60	23.1	200	76.9
22	Coloured Printing Machine	10	14.3	50	85.7	90	34.6	170	65.4
23	Internet connection equipment	22	36.6	38	63.3	22	8.5	238	91.6
24	Air Conditioner	12	20.0	42	80.0	28	10.8	232	89.2
25	Shredding machine	10	14.3	50	85.7	30	11.5	280	88.5
26	DVD Player/Recorder	10	14.3	50	85.7	150	57.7	110	42.3
27	Accounting Machine	15	25.0	45	75.0	160	61.3	100	38.7
28	Guillotine machine	15	25.0	45	75.0	150	57.7	110	42.3
29	Staplers	30	50.0	30	50.0	165	63.5	95	36.5
30	Manual Typewriter	25	41.7	35	58.3	28	10.8	232	89.2
31	Electric Generator	10	14.3	50	85.7	68	26.2	192	73.8
32	Ceiling Fan	25	41.7	35	58.3	102	39.2	158	60.8
33	Adding and listing machine	10	16.7	50	83.3	150	42.3	110	57.7
34	Telephone	25	41.7	35	58.3	120	46.2	140	53.8
35	Fire Extinguisher	25	41.7	35	58.3	102	39.2	158	60.8

Source: Field Survey, 2020.

Table 1 reveals the current state of repairs of Business Education facilities in public tertiary institutions.Most of the constructs have high percentage of between 50 - 90 per cent disrepair. Both lecturers and students rated disrepair higher than repairable. This means that most of the constructs were in a state of disrepair. The table 1 therefore, revealed that the current state of business education facilities in public tertiary institutions in Kwara State show low level of repairs or high level of disrepair.

Research Question 2. What is the state of maintenance of business education facilities in public tertiary institutions in Kwara State?

Table 2 Lecturers and Students perception of the state of maintenance of Business Education facilities in public tertiary institutions

S/N	Maintenance Strategy	TEACHERS		STUDENTS	
		Agree %	Disagree %	Agree %	Disagree %
1	Electrical faults are detected on time and repaired	18	82	10	90
2	Broken doors, chairs and tables are quickly repaired	38	62	18	82
3	Worn-out machine parts are quickly replaced.	24	76	22	78
4	Typing and Computer rooms are adequately maintained.	38	62	32	68
5	Electrical generators are regularly serviced and maintained.	45	55	28	72
6	Training machines and equipment are regularly serviced by experts.	38	62	37	63
7	Word processing labs and Typing Pools are always clean and tidy.	28	72	08	92
8	There is adequate provision against fire and accident.	30	70	39	61
9	Building structures are regularly renovated.	18	82	20	80
10	Unserviceable teaching equipment are quickly replaced.	10	90	28	72

Source: Field Survey, 2020.

Table 2 revealed the perception of respondents on the state of maintenance of business education facilities. Both lecturers and students disagreed with the state of maintenance as listed in the construct for business education facilities. The percentage disagreement by lecturers and students on the constructs ranged from 62 – 92 per cent. This means that the state of maintenance of business education facilities in public tertiary institutions in Kwara State was very low.

Research Question 3. What maintenance strategy is suitable for business education facilities in tertiary institutions in Kwara State?

Table 3: Maintenance strategy suitable for business education facilities in public tertiary institutions in Kwara State

	Maintenance Strategy	LECTURERS		
		$\overline{X}$	SD	Remark
1	Developing policies, objectives, plan for facility maintenance.	3.88	0.33	Strongly agreed
2	Make an officer responsible for the maintenance of each facility.	3.76	0.52	Strongly agreed
3	Staff and students to be adequately educated on facility maintenance.	3.96	0.20	Strongly agreed
4	Regular inspection/service of equipment is essential.	3.96	0.20	Strongly agreed
5	Appropriate and healthy location of equipment is important.	3.92	0.40	Strongly agreed
6	Appropriate and efficient operations of equipment	3.92	0.40	Strongly agreed
7	Use of experts in servicing and maintenance of facilities	3.92	0.40	Strongly agreed
8	Allocation of adequate fund in the budget for maintenance purposes	4.00	0.00	Strongly agreed
9	Acting promptly to repair needs.	4.00	0.00	Strongly agreed
10	Facility maintenance is given priority status in the school organization.	3.60	0.71	Strongly agreed

Source: Field survey 2020

Table 3 reveals the maintenance strategy that is suitable for business education facilities in tertiary institutions in Kwara State. The study reveals that the respondents strongly agreed that school management development of policies, objectives, and plan for maintenance are useful strategies for maintenance of (mean = 3.88), the respondents also strongly agreed that making officer responsible for maintenance and healthy location of equipment are suitable strategies (mean = 3.76 and 3.92) same way lecturers and students are appropriately and efficiently educated on facility maintenance (mean = 3.96 and 3.96). The table also showed that the respondents strongly agreed that use of experts in servicing and maintenance and that regular inspection of equipment is carried out (mean = 3.92). In addition, the respondents strongly agreed that adequate fund in the budget for maintenance of facilities is done. (mean = 4.00 and 4.00).

Test of Hypotheses

Ho_1 There is no significant difference between the mean rating of lecturers and students on the level of maintenance of business education facilities in public tertiary institutions

Table 4: Summary of Independent sample t-test on the rating between perception of lecturers and students on the level of maintenance of business education facilities in public tertiary institutions

Variable	N	Mean	SD	Df	p-value	t-crit.	Decision
Students	260	2.26	0.70				
				310	0.435	0.786’	NS
Lecturers	60	2.41	0.67				

Source: (Field survey, 2020) p>0.05

Table 4 indicates the result of the independent sample t-test on the difference between the perception of students and lecturers on the maintenance strategies for business education facilities in public tertiary institutions in Kwara State. The data analysis revealed that both students and lecturers rated low the maintenance strategy of business education facilities in public tertiary institutions in Kwara State (t = 1.786, P>0.05). The null hypothesis which states that there is no significant difference between the perception of lecturers and students on the maintenance strategy of business education facilities in public tertiary institutions in Kwara State was not rejected.

Ho_2 There is no significant difference between the mean rating of lecturers and students on the strategies suitable for maintenance of business education facilities in public tertiary institutions.

Table 5: Summary of Independent sample t-test on the difference between the mean rating of teachers and students on the strategies suitable for maintenance of business education facilities in tertiary institutions.

Variable	N	Mean	SD	Df	p-value	t-crit.	Decision
Students	260	2.24	0.27				
				310	0.141	2.1600’	NS
Teachers	60	2.16	0.47				

Source: (Field survey, 2020) p>0.05

Table 5 indicates the result of the independent sample t-test on the difference between the mean rating of perception of lecturers and students on the strategies suitable for maintenance of business education facilities in public tertiary institutions in Kwara State.

The data indicates that there is no significant difference between the perception of lecturers and students on the strategies suitable for maintenance of business education facilities. The null hypothesis is however not rejected. The opinion of both group of respondents were not different but; are close to the mean (X= 2.24; = 0.27) and (X = 2.16; 0.47). The response shows positive agreement on the strategies suitable for effective maintenance of business education facilities in public tertiary institutions in Kwara State.

Discussion of Results

The result presented in Table 1 indicates that teaching facilities were generally in a poor state of disrepair. Both lecturers and students were in agreement as to the level of disrepair. Most of the items listed have percentage scores between 50 – 92% high level of disrepair. Table 2 indicates the level of inadequacy of maintenance strategy carried out on most of the teaching facilities. Such facilities include word processing laboratory, Typing pool. Typing desks, computers, printers, photocopier, Filling cabinet, electrical faults, broken doors, tables and chairs, electrical generator and worn out machines. This study reveals that adequate repairs were not carried out on time. Lecturers and students' respondents disagreed with the state of maintenance listed in the construct for business education facilities (Table 2). This indicates that the state of maintenance of business education facilities in public tertiary institutions in Kwara State was very low. Table 3 revealed the maintenance strategy that is suitable for business education facilities in tertiary institutions in Kwara State. The study revealed that the respondents strongly agreed that findings regarding suitable maintenance strategy for business education facilities indicate positive response on all the items. Respondents were in agreement as to developing policies and objectives would facilitate effective maintenance. Other factors that could promote maintenance include, prompt repair of machines, regular inspection of teaching facilities and use of experts in servicing the machines.

Table 4 revealed the result of the independent sample t-test on the difference between the perception of lecturers and students on the maintenance strategies for business education facilities in public tertiary institutions in Kwara State. The result revealed that both students and lecturers were in agreement as to the low rate of maintenance of business education facilities in public tertiary institutions in Kwara State (t = 1.786, P>0.05).

Table 5 revealed the result of the independent sample t-test on the difference between the mean rating of perception of lecturers and students on the strategies suitable for maintenance of business education facilities in public tertiary institutions in Kwara State.The data show no significant difference between the perception of lecturers and students on the strategies suitable for maintenance of business education facilities. The null hypothesis is not rejected. The opinion of both group of respondents were not different but; are close to the mean (X= 2.24; = 0.27) and (X = 2.16; 0.47). The respondents indicate positive agreement on the strategies suitable for effective maintenance of business education facilities. The outcome of this finding is in agreement with earlier study of Apagu and Wakili (2015) who studied the challenges of maintaining ICT teaching facilities in Vocational and Technical education in Yobe State Technical colleges. The study revealed that maintenance of ICT teaching facilities was lacking in technical colleges. It also revealed that both teachers and students' respondents agreed that the major challenges facing ICT teaching facilities were irregular power supply and inadequate maintenance. The study however differs significantly the current study, in the area of geographical location covered by the study and the type of institution studied.

Conclusion

The maintenance strategy of most business education facilities in public tertiary schools is rather poor. The maintenance of training facilities is not regularly carried out. The suitable maintenance strategy for teaching facilities was not put in place in the institutions. It was revealed that teaching machines, broken doors, windows, tables and chairs were not properly maintained. Regular or routine maintenance was not carried out. Adequate funds for maintenance were not regularly made available. Funding for maintenance often constitute major inhibiting factor for appropriate maintenance. Other problems associated with facility maintenance were the general poor attitude of the staff and student to government properties. There is a growing awareness of the role that educational facilities can play in shaping attitudes towards the environment and promotion of academic standard of the school through suitable maintenance strategy.

Recommendation

In order to ensure adequate maintenance strategy of school facilities for the promotion of quality teaching and learning, the following recommendations are made:

1. There should be adequate enlightenment program for lecturers and students to educate them on suitable maintenance strategies.
2. Adequate fund should be provided to pay for repairs and maintenance of departmental equipment, properties and tools.
3. There should be routine supervision of departmental facilities in order to be sure of the condition of the facilities and the action necessary for maintenance.
4. Lecturers or students who are deliberately negligent in their duty and in handling equipment should be sanctioned and appropriately punished.
5. It is necessary to ensure that prompt reports are made of any damage to the school properties for prompt maintenance. Preventive maintenance should be adopted.
6. Appropriate policy on school maintenance should be put in place by school management to ensure effective maintenance of school facilities.
7. The school head should delegate authority to staff or committee to ensure that school equipment and tools are properly repaired and maintained as required.

References:

Adedokun, M. O. (2011) Education for maintenance culture in Nigeria: Implications for Community development. *International Journal of Sociology & Anthropology* 3(8)

Adeleye, S. I. (2009) Maintenance Practice in Nigeria, Policy, Budgeting and Legislative Issues: A paper presented by National Orientation Agency, Oyo State Directorate, Ibadan.

Adeogun, A. O. (2007). An Investigation into the Maintenance of School Facilities in Ekiti State, Nigeria. *Nigerian Journal of Educational Administration and Planning* 8(1).

Alonsabe, C. O.(2011) Reshaping school Plant Maintenance culture in the country. http//. Olga.schoolplantingspot.com.

Apagu, V. V. & Bala, A. W. (2015). Availability and utilization of ICT facilities for teaching and learning of vocational and technical education in Yobe State Technical Colleges. *American Journal of Engineering Research (AJER) 4*(2) pp 113 -118.

Asiyai, R. I. (2012) Assessing school facilities in public secondary schools in Delta State, Nigeria. *An international Multidisciplinary Journal: Ethiopia* 6(2)

Brooks A. and Alkin B. (2002) Total facilities management U.K.: Blackwell Publishing Common Wealth secretariat. Micro computer school, Policy and Implementation guidelines. London.

Cloete, C. E. (2002). *Introduction to facilities South African Property Education Trust Business Print Centre,* Pretoria.Mmple.doc

Hinum Manfred (2014) Strategies for managing Educational facilities infrastructure. Austria: BMUK (Federal Ministry of Education and Cultural Affairs).

Balogun, A. B. (2013) Universal Basic Education in Nigeria: Availability of Infrastructure For Effective Program Implementation: *Educational Studies*

Lazarus, S. J. & Hauptfleisch (2010) The Application of facilities maintenance within the public sector: An Exploratory study. ASOCSA 2010 – 18. University of the free state Bloemfontein.

Uchendu C. C., Ekanem, E. E., & Jonah, S. T. (2013) Resource maintenance for the provision of Educational services in public and private secondary schools in River State, Nigeria. *European Journal of Business and Social Science, 2*(1).

Umar, I. Y. & Ma'aji, A.S. (2013). Repositioning the facilities in Technical College. *A Teacher Education: 47*(3) 1- 9.

Tijani, S. A, Adeyemi, A. O., & Omotehinse, O. J. (2016). Lack of maintenance culture in Nigeria: The bane of National Development. The International Institute of Technology and Education (ITSTE). http://www.liste.org/sub/Final_Template_Sample.doc.