



# **Principals' Role On The Effective Management Of Educational Facilities In Public Senior Secondary Schools in East Senatorial District Of Rivers State**

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## **ABSTRACT**

The study investigated Principals' role on the effective management of educational facilities in Public Senior Secondary School in East Senatorial District of Rivers State. The research aimed at examining the extent of Principals' involvement in routine checks, routine maintenance, usage of school facilities and provision of safety measures for securing school facilities in public senior secondary schools in East Senatorial District of Rivers State. The study adopted the descriptive survey design. The study population consisted of all 102 Principals in the district. There was no sampling as the entire population was studied. The instrument used for data collection was titled, Principals' Role on the Effective Management of Educational Facilities Questionnaire. Face and content validities of the instrument were developed by the researchers. The reliability of the instrument was achieved through test-retest technique. The responses were collated and analyzed using Pearson Product Moment Correlation Coefficient that yielded a reliability index of 0.80. Four research questions were posed and four hypotheses were tested. Data were analyzed using weighted mean, standard deviation and hypotheses were tested using z-test statistics at 0.05 level of significance. Findings revealed that principal's routine checks on the state of facilities in public senior secondary school are to a high extent. The study also reveals that principal's engagement in routine maintenance of school facilities under their care is to a low extent. Principal's efforts towards ensuring that there is care in handling of facilities in senior secondary schools were to a high extent. The study concluded that principal's poor facilities management in public schools is responsible for the deteriorating condition of most of our public schools in Rivers East Senatorial District. The study therefore recommends that, principals should speed up their effort in the task of ensuring that routine maintenance is carried out on school facilities as at when due to avoid the continuing neglect and deterioration condition of school facilities. The government should support school principals in ensuring that adequate security is provided to secure educational facilities in all public schools. The principal can also collaborate with the neighboring/host community leaders to support in protection of school facilities within their domain. Government should provide appropriate funds to principals for the provision and maintenance of school facilities.

**Keywords:** Educational facilities, Principals, management, Secondary School

## **INTRODUCTION**

School facilities management is an integral part of the overall management of the school. The actualization of the goals and objectives of education requires the provision, maximum utilization and appropriate management of the facilities. Facilities management is a process that ensures that buildings and other technical systems, the operations of an organization are properly cared for. School facilities management reflects on the application of scientific methods in the planning, organizing, decision-making, co-ordination and controlling supports of the physical environment of learning for the actualization of the educational goals and objectives.

Educational facilities are materials resources that enhance teaching and learning thereby making the process meaningful and purposeful (Asiyai, 2012). They are synonymous with school physical facilities, school material resources, school plant and facilities. These are further classified into four broad categories namely: instructional materials, welfare/health facilities, physical facilities, recreational facilities and infrastructural facilities. Instructional materials such as books, pamphlets, games, maps, textbooks, musical scores, notebooks. Instructional materials can also include manipulative items for in-class lessons such as protractors, safety goggles, T-squares, blocks, chalk, models, pencils, rulers and art supplies and visual and audio-visual aids. Physical facilities for education such as all material resources that are needed to impart formal education. It may include: land, building, furniture, lab and library. The facility also includes furnishings, materials and supplies, equipment and information technology, as well as various aspects of the building grounds, namely, athletic fields, playgrounds, areas for outdoor learning, and vehicular access and parking, basketball courts, athletic fields, a football field, a cricket pitch, badminton volleyball and tennis courts and a playground with synthetic track. Recreational facilities such as: playing fields, tennis and basketball courts, amusement parks, skating rinks, recreation centers, and golf courses and bicycle paths. Welfare/health facilities such as clinic, health centres, restaurant/ Cafeteria, convenience/toilet. Infrastructural facilities such as water, school plant, electricity, mechanical, plumbing, telecommunications, security, fire suppression systems, information technology and building ground, vehicular access and parking (Haverinen-Shaughnessy, Moschandreas & Shaughnessy 2011).

Asiabaka, (2013) assert that effective school management requires managers who succeed in carrying out the organizational goals of their schools, utilizing the following leadership skills: planning (deciding how to accomplish the organization's goals); organizing (doing the necessary preparation); staffing (filling positions with the right people); directing (motivating staff so that goals are achieved); controlling (guiding the organization in the proper direction); and decision making (which underlies everything the manager accomplishes). The competent principal chooses a time frame that fits the planning agenda, and develops strategies to monitor progress. Meetings should be well-planned, and time management strategies should be applied in order to achieve appropriate delegation of tasks. Leadership is a basic part of management, and loyalty and respect are gained through merit.

The management of academic and administrative affairs of schools traditionally falls within the purview of the principal. Unerringly, formal education in Nigeria is rapidly changing and technically tailored towards meeting certain set goals, such as “education for all” (Nwagwu, 2013). The requirements of these various goals from the school managers are centred on the advancement of teaching and learning through the implementation of performance-based management, which is led by a management team, with the principal at the fulcrum. Given this onerous task, the principal, as a matter of fact, must understand the role of school managers to effectively manage not only staff but the facilities to meet the overall objectives of the school system. According to Ukeje (2000), the unsatisfactory performance often experienced in schools by students and educational programmes is always attributed to lack of basic infrastructure, lack of adequate and accurate statistics, inadequate funding, embezzlement, bureaucratic bottleneck and poor attitude to work. Generally, the principal’s responsibility in the management of educational facilities entails bringing together individuals as a group that will control, coordinate and articulate activities to achieve tangible and holistic learning for the overall benefit of the society (Omokorede, 2011). The school management team headed by the principal must develop, support and equip staff with knowledge and skills to respond positively to the ever changing phenomenon of education to meet contemporary societal challenges. According to Uko and Ayuk (2014), effective management of school facilities requires knowledge, skill and expertise in handling different facets of the school system. This to her, calls on the ability of the principal to set required objectives, supervise facilities usage, formulate plans for procurement and ensure actual management and supervision of available facilities to attain set goals of the school system.

The principal as the manager of the school organization therefore has the onerous task of mobilizing available human resource to ensure a proper running of the school. At the moment several studies on managing educational facilities for quality public secondary education in Rivers State abound. Presently

there is no study known to the researcher on principals' role on the effective management of educational facilities in Public Senior secondary schools in East Senatorial District, Rivers State and hence the need for this study.

### **The Concept of Educational Facility**

The quality of education delivered by teachers and the academic achievement of pupils of any school is dependent on several factors of which Educational Facilities is paramount. Educational facilities are materials resources that enhance teaching and learning thereby making the process meaningful and purposeful. Educational facilities can be defined as the entire school plant which school administrators, teachers and students harness, allocate and utilize for the smooth and efficient management of any educational institution, for the main objective of bringing about effective and purposeful teaching and learning experience. The school facilities consist of all types of buildings for academic and non-academic activities, equipment for academic and non-academic activities, areas for sports and games, landscape, farms and gardens including trees, roads and paths. Others include furniture and toilet facilities, lighting, acoustics, storage facilities and packing lot, security, transportation, ICT, cleaning materials, food services, and special facilities for the physically challenged persons. Oyesola (2000) sees school facilities to include permanent and semi-permanent structures such as machinery, laboratory equipment, the blackboard, teacher's tools and other equipment as well as consumables. Good quality and standard of school depend largely on the provision, adequacy, unitization and management of educational facilities. Akinsolu (2004) asserted that educational curriculum cannot be sound and well operated with poor and badly managed school facilities.

Educational facilities are physical structures and material resources that contribute directly and indirectly to the teaching and learning processes to enhance quality in education. Ojedele (2016) identified three components of educational facilities. These are school infrastructure, instructional facilities and school physical environment. To the scholar, school infrastructure includes buildings and playgrounds, instructional facilities includes teaching learning materials, equipment and furniture while school, physical environment are the beautification of school environment. Olagboye (2016), stated that educational facilities consist of instructional resource such as audio and display materials and consumable materials such as land, building, furniture, equipment, machinery, vehicle, electricity and water supply infrastructure. For (Castadi cited (in Igwe, 2006), educational facilities are those things of education, which enable a skillful teacher to achieve a level of instructional effectiveness that far exceeds what is possible when they are not provided. In the same vein, Ebong (2006) described physical or educational facilities as inclusive of "school plant, classrooms, offices, recreational facilities the environment that gives aesthetic values to the school". She stressed that physical facilities are classified in terms of their value, usage and relevance to educational goal.

Provision of educational facilities is necessary but it does not guarantee quality education. The facilities must be put to proper use to enhance quality education.. Adeboyeje (2000), stated that utilization is the degree or extent to which an item has been put into effective use. According to his various degree of utilization includes non-utilization, under-utilization, over utilization, optimum utilization and over utilization. Non-utilization is when the facilities are not put into use at all. Under-utilization occurs when a facility is not use in it full capacity. Maximum utilization occurs when facility is put into effective usage in line with the primary objective. Optimum utilization occurs when facilities are used for many purposes by the school and members of the community while over utilization occur when a facility is use more than its capacity. These degrees of utilization constitute a waste resource and are counterproductive.

### **Maintenance of Educational Facilities**

In Nigeria particular in Rivers state institutions, proper operation during maintenance of buildings and equipment is the major problem facing school administrators in cause of managing educational facilities, facility tends to depreciate as soon as they provided and put into use. Thoroughly repairs and servicing of components in order to restore their physical condition and sustain their working capacity, School plant maintenance is the keeping of the school buildings and equipment in as near as their original state. It can also be defined as those activities connected with keeping of the buildings, equipment and grounds of the school in such conditions of completeness and efficiency, through repairs and replacement that the

physical appearance will remain as original. However, Olutola (2010) defined school equipment maintenance as the King of School Equipment in as near the original state of utility as possible. School facilities, like any other instructional aids, are designed with the student's physiological and psychological needs in mind.

However, it is natural to see these buildings and equipment depreciating in outlook and some factors are responsible for this. These include:

- a. **Usage:** As a result of constant usage, most of the school plants are subjected to tear and wear, that result in the depreciation of the equipment.
- b. **Effects of the Weather:** The adverse conditions of the weather within the school environment can affect the natural beauty and quality of the school plant for example; dusty wind can affect the original colour of the uncoated iron etc.
- c. **Age:** The longer a school plant stays, the more the utility value depreciates.
- d. **Carelessness:** Most Educational facilities lose their originality as a result of carelessness, negligence or abandonment. When a building is abandoned there is tendency for weeds to out-grow the building, rats, lizards and other such animals may start to hibernate inside, the building, thus dirtying the walls and perforating the roof.

Maintenance involves keeping the entire school in good and up-to-date condition. The procedure for this process includes:

- Identification of structures and equipment that need repairs.
- Selective attention
- Institution of maintenance workshop
- Establishment of repair inventory book

**Regular Maintenance:** This is the type of maintenance given to special equipment, in the school on periodic basis. For example, servicing of machines like typewriter, changing the engine oil from school tanker buses etc. This routine service aims at keeping the equipment working, and to minimize cases of total breakdown of the equipment. These repairs are usually done by some skilled workers in or outside the school.

### **Principal and School Facility Management**

The management of academic and administrative affairs of schools traditionally falls within the purview of the principal. Unerringly, formal education in Nigeria is rapidly changing and technically tailored towards meeting certain set goals, such as "education for all" (Nwaogu, 2013). The requirements of these various goals from the school managers are centred on the advancement of teaching and learning through the implementation of performance-based management, which is led by a management team, with the principal at the fulcrum. Given this onerous task, the principal, as a matter of fact, must understand the role of school managers to effectively manage not only staff but the facilities to meet the overall objectives of the school system. According to Ukeje (2000), the unsatisfactory performance often experienced in schools by students and educational programmes is always attributed to lack of basic infrastructure, lack of adequate and accurate statistics, inadequate funding, embezzlement, bureaucratic bottleneck and poor attitude to work. Generally, the principal's responsibility in the management of educational facilities entails bringing together individuals as a group that will control, coordinate and articulate activities to achieve tangible and holistic learning for the overall benefit of the society (Sunday, 2014). The school management team headed by the principal must develop, support and equip staff with knowledge and skills to respond positively to the ever-changing phenomenon of education to meet contemporary societal challenges. This he can do among other things in ensuring the effective management of school facilities at his disposal in order to ensure they are properly maintained and safe for use for educational purposes. Some effective school facility management techniques include:

**Maintenance, testing and inspections:** Maintenance, testing and inspection schedules are required to ensure that the facility is operating safely and efficiently, to maximize the life of equipment and reduce the risk of failure. Statutory obligations must also be met. The work is planned, often using a (computer-aided facility management) system. the principal can also set up operational unit in the school/department

that will be charged with the responsibilities for the day-to-day running of the buildings and facilities, these tasks may be outsourced or carried out by directly employed staff. This is a policy issue, but due to the immediacy of the response required in many of the activities involved the facilities manager will often require daily reports or an escalation procedure. Some issues require more than just periodic maintenance, for example those that can stop or hamper the smooth running of operations in the school or that have safety implications.

**Building maintenance:** Building maintenance comprises all preventative, remedial and upgrade works required for the upkeep and improvement of buildings & their components. This works may include disciplines such as painting and decorating, carpentry, plumbing, glazing, plastering, and tiling.

**Cleaning:** Cleaning operations are often undertaken out of business hours, but provision may be made during times of occupations for the cleaning of toilets, replenishing consumables (such as toilet rolls, soap) plus litter picking and reactive response is scheduled as a series of periodic (daily, weekly, monthly) tasks.

**Fire safety:** The threat from fire carries one of the highest risks to loss of life, and the potential to damage to property or shut down a business. The facilities management department will have in place maintenance, inspection and testing for all of the fire safety equipment and systems, keeping records and certificates of compliance.

**Environment, Health and Safety (EHS):** The facility management FM department in the school is required to control and manage many environment and safety related issues. Failure to do so may lead to unhealthy conditions leading to employees falling sick, injury, loss of business, prosecution and insurance claims. The confidence of customers and investors in the business may also be affected by adverse publicity from safety lapses Mudrak, Wagenberg & Wubben (2012).

### **0The Need for Effective Educational Facilities Management in Schools**

Facilities are materials designed to serve specific purposes. In the school system, there are multiplicity of facilities, which facilitate teaching and learning. They are used;

- (1) To illustrate concepts
- (2) Provide opportunity for firsthand experience
- (3) For experimentation and demonstration
- (4) For scientific investigation and discovery
- (5) To provide diversity of thoughts
- (6) For observation and inquiry
- (7) For development of scientific attitudes and skills
- (8) To protect the individual and also provide comfort

Asiabaka (2008), maintained that educational facilities management play a pivotal role in the actualization of educational goals and objectives by satisfying the physical and emotional needs of the staff and students. According to her, physical needs are met through the provision of safe structures, adequate sanitary facilities, a balanced visual and thermal environment, sufficient shelter space for work and play; while emotional needs are met by creating pleasant surroundings, friendly atmosphere and an inspiring environment. Supporting the need for effective management of facilities in schools, The need for effective management of educational facilities according to Dagogo (2010), leads to a shift in the conception of principalship from the managerial and administrative perspective to that of instructional leadership whereby the principal acts as a leader in all aspects of the school curricula, imparting and enforcing on the intellectual and emotional development of the teachers, changing the instructional climate of the school and affecting and transforming the students learning and achievement behavior and attitude.

### **Principals and Effective Management of Educational Facilities**

This is a phenomenon where planning, organizing, staffing, leading and controlling the processes of supply, utilization, maintenance and improving educational facilities in secondary schools is superintended by the principal to fulfill the set educational objectives. Abdulkareem (2011), maintained

that, in order to fulfill educational objectives, educational facilities are required and should be central to the extent that teachers, students and other personnel will enjoy their stay and perform their duties effectively, made possible by the principal's leadership ingenuity and proficiency. The school curriculum would be meaningful and functional if the required facilities are provided in adequate quantities at appropriate times and maintained properly. The realization of the importance of educational facilities has informed the demand in the choice of secondary schools that parents/guardians send their children/wards to in Nigeria. This commitment is demonstrated by government in the provision and establishment of Universal Basic Education (UBE), to bring all categories of citizens into the school system and ensure retention till graduation (Ukeje, 2000). However, this can only be achieved if the existing facilities are properly managed especially as greater demands would be mounted by the users.

### **Statement of the Problem**

An overwhelming number of poor and minority students in Nigeria are being educated in deteriorating school facilities not conducive to increasing student motivation and/or academic achievement. In the absence of appropriate and safe educational facilities in which urban students can access the tools to confidently pursue their education, it is unreasonable to expect tremendous gains in areas of student conduct, motivation and/or achievement.

Oftentimes, in Nigeria, parents' preference of schools for their wards is informed by the quality of facilities. Schools run the risk of losing students to other well-equipped institutions when their schools lack the required facilities or available facilities are not properly managed (Dike, 2005). Also, if facilities are poorly maintained, this could lead to health and sanitary condition problems. For instance, if the toilets are broken down and students defecate indiscriminately, epidemics and other contagious diseases may occur to endanger not only the lives of the students, but also of the staff, the immediate neighborhood and the nation at large (Oladipo & Oni, 2010).

In all, the general state of affairs of school facilities is a pointer or essential determinant of the versatility of the principal and his team and the attendant academic prowess of the students (Okoroma, in Nwangwu (2011). Equally true is that poor performance and non-grasp of practical in science courses had been attributed to debilitated facilities or near-absence of laboratory infrastructural facilities. According to Onyeike (2013), in many cases the laboratories do not exist or are in advanced state of disrepair, resulting in the poor performance of students in West African Examinations Council (WAEC) and National Examinations Council (NECO), hence the resultant poor quality output from Nigerian secondary schools, especially the public schools.

### **Purpose of the study:**

The purpose of this study generally was to examine the principals' role on the effective management of educational facilities in public senior secondary schools in East Senatorial District, Rivers State. Specifically, the objectives of the study were to:

1. Determine the extent to which principals do routine checks to enhance the effective management of school facilities in public senior secondary schools in East Senatorial District of Rivers State.
2. Determine the extent to which principals engage in routine maintenance in order to enhance the effective management of school facilities in public senior secondary schools in East Senatorial District of Rivers State.
3. Ascertain the extent to which principals ensure proper usage of school facilities to enhance their effective management in public senior secondary schools in East Senatorial District of Rivers State.
4. Examine the extent to which safety measures are provided by Principals to enhance the effective management of school facilities in public senior secondary school in East Senatorial District of Rivers State.

### **Research Questions**

The research questions that will guide the study are as follows:

1. To what extent do principals do routine checks to enhance the effective management of school facilities in public senior secondary schools in East Senatorial District of Rivers State?

2. To what extent do principals engage in routine maintenance in order to enhance the effective management of school facilities in public senior secondary schools in East Senatorial District of Rivers State?
3. To what extent do principals ensure proper usage of school facilities to enhance their effective management in public senior secondary schools in East Senatorial District of Rivers State?
4. To what extent do principals provide safety to enhance the effective management of school facilities in public senior secondary schools in East Senatorial District of Rivers State?

### **Hypotheses**

The following null hypotheses were formulated and tested at 0.5 level of significance

**H<sub>01</sub>:** There is no significant difference in the mean ratings of male and female principals on the extent principals do routine checks to enhance the effective management of school facilities in public senior secondary schools in East Senatorial District of Rivers State.

**H<sub>02</sub>:** There is no significant difference in the mean ratings of experienced and less experienced principals on the extent principals engage in routine maintenance in order to enhance the effective management of school facilities in public senior secondary schools in East Senatorial District of Rivers State.

**H<sub>03</sub>:** There is no significant difference in the mean rating of principals in urban schools and those in rural schools on the extent principals ensure proper usage of school facilities to enhance their effective management in public senior secondary schools in East Senatorial District of Rivers State.

**H<sub>04</sub>:** There is no significant difference in the mean ratings of female and male principals on the extent principals provide safety measures to enhance the effective management of school facilities in public senior secondary schools in East Senatorial District of Rivers State.

### **METHODOLOGY**

The design of the study was a descriptive survey design. The population of this study comprised all the 37 urban and 65 rural public senior secondary schools in Rivers East Senatorial District which gave a total of 102 public senior secondary schools. Since the population of public senior secondary schools in Rivers East Senatorial District is 102, the number of principals will equally be 102. The population being small, there was no sampling involved in the study. It then means that the sample is the same as the population.

The instrument for the study is a questionnaire titled Principals' role on the Effective Management of Educational Facilities Questionnaire (PRMEFS). It is a non-cognitive instrument containing 25 items focusing on Principals' routine checks and maintenance, safety measures and proper usage of public educational facilities in schools. The questionnaire is composed of close-ended items. The items were developed on a four – point Likert type scale ranging from Very High Extent (VHE) = 4, High Extent (HE) = 3, Low Extent (LE) = 2 and Very Low Extent (VLE) = 1.

Copies of the questionnaire were administered directly to the respondents by the researcher and two (2) research assistants. Instructions pertaining to the filling of the questionnaire were carefully explained to the respondents. The filled copies of the instrument were collected on the spot to avoid misplacement.

Data were analyzed using weighted mean, standard deviation and hypotheses were tested using z-test statistics at 0.05 level of significance.

**Research Question 1**

*To what extent do principals do routine checks to enhance the effective management of school facilities in public senior secondary schools in Rivers East Senatorial District of Rivers State?*

**Computation of Respondent Responses on the Extent Principals' do Routine Checks to Enhance the Effective Management of School Facilities in Public Senior Secondary Schools in East Senatorial District of Rivers State (N=102)**

S/N	Item(s)	VHE	HE	LE	VL E	Total Resp	Mean	SD	Remarks
1	Regular inspections are carried out on classroom building	31 124	53 159	11 22	07 07	312	3.06	0.79	HE
2	Routine checks are done on school generator plant to authenticate their functionality	18 72	32 96	34 68	18 16	252	2.47	0.71	LE
3	The computer laboratory is often supervised by the principal to ensure that unauthorized persons do not gain access to it and that they are kept in good condition	29 116	49 147	19 38	05 05	306	3.00	0.78	HE
4	Often times the principal questions act of vandalism on school louvers, doors, desks, windows etc	24 96	54 162	17 34	07 07	299	2.93	0.76	HE
5	I show concern and commitment in ensuring that school facilities are kept safe and conducive for use	18 72	36 108	32 64	16 16	260	2.55	0.71	HE
<b>Grand Mean</b>							<b>2.80</b>	<b>0.75</b>	<b>HE</b>

**Source:** Field survey, 2018

Analysis in Table 1, showed that items 1,3,4 and 5 had a weighted mean scores above the criterion mean of 2.50 and thus, were accepted that principals' routine checks on the state of facilities in public senior secondary school is of high extent. Conversely, item 2 had a mean score below the criterion mean thereby affirming that principals' routine checks on the state of facilities in public senior secondary school is to a low extent. In summary, with a grand mean of 2.80, the principals indicated that routine checks on the state of facilities in public senior secondary school is of high extent.

**Research Question 2:**

*To what extent do principals engage in routine maintenance in order to enhance the effective management of public-school facilities in public senior secondary schools in East Senatorial District of Rivers State?*

**Computation of Respondent’s Responses on the Extent Principals Engage in Routine Maintenance in Order to Enhance the Effective Management of School Facilities in Public Senior Secondary Schools in East Senatorial District of Rivers State (N=102)**

S/ N	Item(s)	VHE	HE	LE	VLE	Total Resp	Mean	SD	Remarks
1	Cracks on buildings, ceiling and roofs, electric fixtures are detected and repaired	16 64	27 81	39 78	20 20	243	2.38	0.71	LE
2	Broken furniture is often replaced	21 84	27 81	48 96	06 06	267	2.62	0.71	HE
3	The school clinic/medical outfit is up and running	15 60	26 78	36 72	25 25	235	2.30	0.72	LE
4	School plants, computers and duplicating machines are regularly serviced	11 44	22 66	31 62	38 38	210	2.06	0.76	LE
5	Learning materials like models, protractors, safety goggles, chalks, T-squares are provided.	34 136	48 144	16 32	04 04	316	3.10	0.80	HE
<b>Grand Mean</b>							<b>2.49</b>	<b>0.74</b>	<b>LE</b>

**Source:** Field survey, 2018.

Table 2, shows principals engagement in routine maintenance of school facilities under their care, items 2 and 5 have item mean between 2.62 and 3.10 respectively which are higher than the criterion mean of 2.5; while items 1, 3 and 4 have item mean ranging 2.38, 2.30 and 2.06 had a mean score below the criterion mean and thus were rejected. The grand mean of 2.49 indicate low extent. It was therefore concluded that, principals’ engagement in routine maintenance of school facilities under their care is to a low extent.

**Research Question 3:**

*To what extent do principals ensure proper usage of school Facilities to enhance their effective management in public senior secondary schools in East Senatorial District of Rivers State?*

**Computation of Respondents' Responses on the Extent Principals Ensure Proper Usage of School Facilities to Enhance their Effective Management in Public Senior Secondary Schools in East Senatorial District of Rivers State (N=102)**

S/ N	Item(s)	VHE	HE	LE	VLE	Total Resp	Mean	SD	Remarks
1	Disciplinary measures are minted to students who vandalize school facilities	58 232	39 117	05 10	- -	359	3.52	0.96	VHE
2	There is a policy that compel students to replace school facilities they damage	14 56	34 102	34 68	20 20	246	2.41	0.71	LE
3	The ministry of education is engaged to make fund available in fixing faulty equipment and facilities	16 64	29 87	36 72	21 21	244	2.39	0.74	LE
4	There is enshrined a school culture where students are taught how to handle school facilities with utmost care	28 112	49 147	16 32	09 09	300	2.94	0.76	HE
5	Students are properly guided on how to make use of computer and laboratory equipment/materials	33 132	54 162	09 18	06 06	318	3.12	0.80	HE
<b>Grand mean</b>							<b>2.88</b>	<b>0.79</b>	<b>HE</b>

**Source:** Field survey, 2018

Table 4, shows to what extent principals' efforts are geared towards ensuring that there is care in handling of facilities in senior secondary schools. The five (5) questionnaire items have the following mean 3.52, 2.41, 2.39, 2.94 and 3.12 respectively. However, the grand mean of 2.88 was higher than the criterion mean of 2.50 which shows to a high extent principals efforts at ensuring that there is care in handling of facilities in senior secondary schools in Rivers East Senatorial District.

**Research Question 4**

*To what extent do principals provide safety measures to enhance the effective management of school facilities in public senior secondary schools in East Senatorial District of Rivers State?*

**Computation of Respondents’ Responses on the Extent Principals Provide Safety Measures to Enhance the Effective Management of School Facilities in Public Senior Secondary Schools in East Senatorial District of Rivers State (N=102)**

S/N	Item(s)	VHE	HE	LE	VLE	Total Resp	Mean	SD	Remarks
1	I hold security briefing with school security agent on the need to protect school facilities	21 84	43 129	26 52	12 12	277	2.72	0.72	HE
2	Occasionally, I personally inspect the state of school facilities in my school	34 136	57 171	08 16	03 03	326	3.10	0.80	HE
3	I have signed a memorandum of understanding (MOU) with host community to assist in providing security for school facilities	09 36	16 48	31 62	46 46	192	1.88	0.81	LE
4	I ensure that burglary and fire proof are installed in rooms where school facilities are located	13 52	21 63	33 66	35 35	216	2.12	0.75	LE
5	Reports are made to the police in the event of any security threat on the school environment	19 76	31 93	34 68	18 18	255	2.50	0.71	HE
<b>Grand Mean</b>							<b>2.46</b>	<b>0.76</b>	<b>LE</b>

**Source:** Field survey, 2018

Table 3 which is research question 3, shows principals engagement in providing security to protect facilities in public senior secondary schools, items 1,2and 5 have item mean between 2.72, 3.10 and 2.50 respectively which are higher than or equal to the criterion mean of 2.5; while items 3 and 4 have item mean ranging 1.88 and 2.12 had a mean score below the criterion mean and thus were rejected. With a grand mean of 2.46, it considered to a low extent principals’ engagement in providing security to protect facilities in public senior secondary schools in Rivers East Senatorial District.

**Hypothesis 1**

There is no significant difference in the mean ratings of male and female principals on the extent principals do on routine checks to enhance the effective management of school facilities in public senior secondary schools in East Senatorial District of Rivers State?

**Computation of no Significant Difference in the Mean Ratings of Male and Female Principals on the Extent Principals do Routine Checks to Enhance the Effective Management of School Facilities in Public Senior Secondary Schools in East Senatorial District of Rivers State**

Gender	N	x	SD	Z-Cal	$\alpha$	DF	Z-Crit	Decision
Male Principals	71	3.46	0.29					
Female Principals	31	3.21	0.27	4.17	0.05	100	1.96	<b>Reject</b>

**Source:** Field survey, 2018

As shown in table 6, the z-calculated value of 4.17 is greater than the z-critical value of 1.96 at 100 degree of freedom and 0.05 level of significance. The researcher rejects the null hypothesis in favour of the alternative hypothesis. Based on the hypothesis testing, the researcher concludes that there is significant difference in the mean score of male and female principals on the conduct of routine checks on school facilities in senior secondary schools in Rivers East Senatorial District. In other words, male principals are more effective in terms of routine checks on school facilities in senior secondary schools.

**Hypothesis 2**

There is no significant difference in the mean ratings of experienced and less experienced principals on the extent principals do engage in routine maintenance in order to enhance the effective management of school facilities in public senior secondary school in East Senatorial District of Rivers State?

**Computation of no Significant Difference in the Mean Ratings of Male and Female Principals on the Extent Principals Engage in Routine Maintenance of School Facilities in Public Secondary Schools in East Senatorial District of Rivers State**

<b>Years of Experience</b>	<b>N</b>	<b>X</b>	<b>SD</b>	<b>Z-Cal</b>	<b><math>\alpha</math></b>	<b>DF</b>	<b>Z-Crit</b>	<b>Decision</b>
Above 10 years	82	3.02	0.25					
Less than 10 years	20	2.36	0.23	11	0.05	100	1.96	<b>Reject</b>

**Source:** Field survey, 2018

As shown in table 4.6, the z-calculated value of 11 is greater than the z-critical value of 1.96 at 100 degree of freedom and 0.05 level of significance. The researcher rejects the null hypothesis in favour of the alternative hypothesis. Based on the hypothesis testing, the researcher concludes that there is significant difference in the mean rating of experienced principals and less experienced principals on how routine maintenance of facilities is carried out by principals in public senior secondary schools. In view of this result, the researcher concludes that principals with experience are better managers of school facilities than the less experienced ones.

**Hypothesis 3:**

There is no significant difference in the mean ratings of principals in urban schools and those in rural schools on the extent principals ensure usage of school facilities to enhance their effective management in public senior secondary schools in East Senatorial District of Rivers State?

**Computation of no Significance Difference in the Mean Ratings of Principals in Urban Schools and those in Rural Schools on the Extent Principals Ensure Proper Usage of School Facilities to Enhance their Effective Management in Public Senior Secondary Schools in East Senatorial District of Rivers State**

<b>Location</b>	<b>N</b>	<b>x</b>	<b>SD</b>	<b>Z-Cal</b>	<b><math>\alpha</math></b>	<b>DF</b>	<b>Z-Crit</b>	<b>Decision</b>
Urban Administrators	66	2.93	0.24					
Rural Administrators	36	2.89	0.24	0.80	0.05	100	1.96	<b>Accept</b>

**Source:** Field survey, 2018

As shown in table 4.7, the z-calculated value of 0.80 is less than the z-critical value of 1.96 at 100 degree of freedom and 0.05 level of significance. The researcher accepts the null hypothesis and reject the alternative hypothesis. Based on the hypothesis testing, the researcher concludes that there is no significant difference in the mean rating of principals in urban schools and those in rural schools in their efforts at ensuring that there is care in handling facilities in public senior secondary schools in Rivers East Senatorial District.

**Hypothesis 4:**

There is no significant difference in the mean ratings of female and male principals on the extent principals provide safety measures to enhance the effective management of schools facilities in public senior secondary schools in East Senatorial District of Rivers State?

**Computation of no Significant Difference in the Mean Ratings of Male and Female Principals the Extent Principals Provide Safety Measures to Enhance the Effective Management of School Facilities in Public Senior Secondary Schools in East Senatorial District of Rivers State.**

Principals' Security Expertise	N	X	SD	z-cal	α	DF	z-crit	Decision
Female Principals	71	2.35	0.23					
Male Principals	31	2.29	0.22	1.20	0.05	100	1.96	<b>Accept</b>

**Source:** Field survey, 2018

Data on table 4.8 shows a summary of scores, means, standard deviation and z-test of difference between male and female principals' ability to provide security to protect facilities in public senior secondary schools in Rivers East Senatorial District. The z-test statistics, calculated and used in testing the hypothesis stood at 1.20, while the z-critical value stood at 1.96, using 100 degree of freedom at 0.05 alpha level of significance. A 0.05 level of significance and 100 degree of freedom, the calculated value of 1.20 is less than the critical value of 1.96. Hence, no significance difference exists between the responses from the respondents. The hypothesis therefore confirms that there is no significant difference in the mean score of male and female principals on principals' ability to provide security to protect facilities in public senior secondary schools in Rivers East Senatorial District.

**CONCLUSION**

Based on the analysis of data and discussion of findings, it was concluded that:

The principals' routine checks on the state of facilities in public senior secondary school is to a high extent in Rivers East Senatorial district.

It was also concluded that principals' engagement in routine maintenance of school facilities under their care is to a low extent.

Principals' efforts towards ensuring that there is proper usage of school facilities in senior secondary schools is to a high extent.

Principals' involvement in providing safety measures to secure school facilities in public senior secondary schools is also to a low extent.

There is significant difference in the mean score of male and female principals on the conduct of routine checks on school facilities in senior secondary schools in Rivers East Senatorial District.

There is significant difference in the mean rating of experienced principals and less experienced principals on how routine maintenance of facilities is carried out by principals in public senior secondary schools.

There is no significant difference in the mean rating of principals in urban schools and those in rural schools in their efforts of ensuring that there is care in usage facilities in public senior secondary schools in Rivers East Senatorial District.

There is no significant difference in the mean score of male and female principals on principals' ability in providing safety measures to secure school facilities in public senior secondary schools in Rivers East Senatorial District.

Poor school facilities management by principals is responsible for the deteriorating condition of most of our public schools in Rives East Senatorial District.

**RECOMMENDATIONS**

1. Principals need to intensify efforts at routine check on public school facilities in order to guarantee that they are safe and in good condition for use.

2. Principals should speed up their efforts in the task of ensuring that routine maintenance is carried out on school facilities as at when due to avoid the continuing neglect and deteriorating condition of school facilities.
3. Principals should seek to ensure that both staff and students are properly informed on the need to handle school facilities with care. Every necessary rule and regulation aimed at ensuring that school facilities are handled with care should be implemented to the letter.
4. The government should support school principals in ensuring that adequate safety and security is provided to secure educational facilities in all public schools. The principal can also collaborate with the neighboring/host community leaders to support in protecting school facilities within their domain.
5. Government should provide appropriate funds to principals for the provision and maintenance of school facilities.

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