Influence Of School Plant Management On Principals’ Administrative Effectiveness In Senior Secondary Schools In Rivers State, Nigeria

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ABSTRACT
The study centred on influence of school plant management on principals’ administrative effectiveness in senior secondary schools in Rivers State, Nigeria. Thus, two research questions and two hypotheses were drawn for the study. Descriptive survey research design was adopted for the study. The population of the study was 257 (principals) and 187 (supervisors) of the Rivers State Post Primary Schools Board. The entire population was used for the study. It was concluded that principals need adequate planning and procurement for effective utilization of school plant. In other words, a well-planned school plant produces expected outcomes of education for the students. Hence, principals need to plan for the allocation and utilisation of the available school plant for effective usage.

Keywords: Administrative effectiveness School plant, principal,

INTRODUCTION
Education remains a major factor for individuals and societal development through secondary education. Secondary Education is a six-year post education programme receives after primary school. For Federal Republic of Nigeria (2014), it aims at preparing individual for useful living within the society and for tertiary education. It exists within the ambits of the law and is supervised by the Ministry of Education and other state agencies.

Consequently secondary education as the driving force of national development can only be successful when its objectives are well considered and administered using the available facilities. Thus, it is the responsibility of school administrators to ensure that all available resources are geared towards the attainment of the set objectives. In the secondary schools system, the goals are facilitated by the principals who are the de facto heads and have the administrative command of authority, unity of subordinates as well as ensuring division of labour for accomplishing tasks and responsibilities (Okoroma & Roberth-Okah, 2007).

The success of a principal rests within his ability to manage available human and non-human resources in the attainment of set objectives. Idoko (2005) maintained that one of the primary functions of secondary school principals is management and maintenance of school plant. Accordingly, Okoroma (2016) inferred that principals are the chief executive officers of secondary schools who influence the results that are obtainable with available educational resources. Therefore, the administrative functions of planning, organizing, directing, staffing, coordinating, reporting and budgeting are part of the daily activities of principals.

School plant, however, are important to the administration of the school activities and principals as heads of these schools always ensure proper management of the available resources to achieve administrative success. Administrative success in this context is the level of performance in achieving set objectives. It is the results attain based on laid down procedures and responsibilities. Akomolafe (2012) viewed administrative process as the positive responses, efforts and actions with the intention to accomplish stated goal. This scholar stressed further that it reflects on decision making, delegation of duties to
subordinates, setting good examples and motivating the teachers and the students alike in an effort to create a conducive working environment. This, therefore, bothered on accomplishing the set goals and objectives as well as enhancing productive capacity of the subordinates. Similarly, Ibukun (2011) viewed administration as the rate or frequency at which principals carry out their daily functions towards the attainment of educational goals.

Eniola (2006) as cited in Muraina (2014) stated that the success and effectiveness of the principals depend on his ability to discharge managerial functions and make judicious use of his body of knowledge and skills. A skilled and competent principal is one who facilitates the use of the inputs to the school by ensuring that desired goals are achieved (Akinola, 2013). Thus, the parameters for measuring the effectiveness of principals in the secondary school include: level of discipline, tone of the school, school climate, teachers’ performance and the number of students who successfully pass their school leaving certificate examinations. Hence, there is need for principals to justify the use of school plant by producing adequate results which will reflect good performances (Okoroma, 2000).

**Statement of the Problem**

School plant plays an immeasurable role in the promotion of teaching and learning in the school system. It plays a major role in determining the type of relationship between the school and community, hence, making the education sector a huge area of investment for both the individuals and various levels of government. It is on this note that adequate utilisation and procurement of the school plant is fundamentally reckoned with in the educational sectors.

Despite tremendous investment by government, it has been observed that most schools have leaking roofs, gaping holes for windows, unreadable black boards instead of whiteboards in the 21st century, no visual teaching aids or wall posters, no libraries or teaching facilities. In recent times, a lot is being said about lack of equipment and other facilities in our schools. These inadequacies have hindered effective teaching and learning process and consequently affected the performance of students. In most schools, where these infrastructures and amenities are not well provided, the teachers and students become much disenchanted to administer schools diligently. Principals’ efforts towards achieving relatives goals and objectives are often met with various constraints such as: inadequate school funding, unavailability of facilities (physical and material), unfriendly school organization, disciplinary problems, school community relationship, staff development, curriculum development and instruction, guidance and counselling services and evaluation of school programmes and activities. These and other related challenges inform the researchers to examine influence of school plant management on principals’ administrative effectiveness in senior secondary schools in Rivers State, Nigeria.

**Purpose of the Study**

The purpose of this study was to examine influence of school plant management on principals’ administrative effectiveness in senior secondary schools in Rivers State, Nigeria. The specific objectives were to: determine the extent to which school plant planning and procurement practice influences administrative effectiveness of senior secondary schools in Rivers State, Nigeria.

**Research questions**

1. To what extent does school plant planning influence administrative effectiveness of principals in senior secondary schools in Rivers State?
2. To what extent do effective procurement practices of school plant influence administrative effectiveness of principals in senior secondary schools in Rivers State?

**Hypotheses**

1. There is no significant difference in the mean ratings of the principals and school board supervisors on the extent to which school plant planning influence administrative effectiveness of principals in senior secondary schools in Rivers State
2. There is no significant difference in the mean ratings of principals and school board supervisors on the extent to which effective procurement practices of school plant influence administrative effectiveness of principals in senior secondary schools in Rivers State.
Literature Review
Concept of School Plant
School plant refers to the material provisions of the school which includes the premises, buildings, playgrounds, libraries, laboratories, classrooms, hostels, common room, canteens etc. The school plant is an integral part of the learning environment. Uko (2001) stated that when school facilities are considered from the point of the school plant, then one will be considering a gamut of facilities such as: science laboratories, school library, and technical workshops. Mgbodile (2004) described the school plant as the space interpretation of the school curriculum. The programmes of the school are expressed through school site, buildings, playgrounds, arrangement and design of the buildings. Accordingly, Onwurah (2004) maintained that school plant is the school site, buildings, play grounds, equipment and other material resources provided in the school for effective teaching and learning operations.
Njoku (2004) opined that school plant or educational facilities are tangible assets of an institution such as: building and land which are put into use for producing excellent educational services. Educational facilities also known or referred to as school plant include school buildings reflecting on: classrooms, laboratories, libraries and workshops etc.
Idoko (2005) viewed school plant to mean the same thing as school facilities or physical facilities in the school which include: school grounds, buildings, sporting facilities, furniture, educational equipment, library, school health clinic, transport facilities, school records etc. In the same vein, Bryce (2006) described school plant as facilities that enable a skilled teacher to achieve a level of instructional effectiveness that far exceed what is possible when they are not provided.

It seems that a well-designed functional school plant with a wide array of teaching aids therefore provide effective delivery of schools’ curriculum and are positively related to academic achievement. Thus, it is required that necessary attention be given to available school plants in order to achieve set goals and also to build confidence in stakeholders. It is in this vein that Adesina (1990) opined that, the school plant has to be well maintained because the physical nature and the appearance can be the yardstick by which the administrative capability of the school head can be measured. This is so because the headship provided by him determines how the generality of the school ground and physical environment are utilized and cared for. This determines part of the successes of the school administrator. For instance, Edemas cited in Idoko (2005), points out that a beautiful school not only facilitate high enrolment but also provides adequate comfort to the learners, thereby improving the standard of education in that school. Accordingly, Asiyai (2012) revealed that the quality of education delivered by teachers and the academic achievement of pupils of any school is dependent on several factors of which school plant is paramount. This is because they are material resources that enhance teaching and learning thereby making the process meaningful and purposeful.

School plant planning and management
Planning is the determination in advance what to do, when to do and how to do it, hence, failure to plan is planning to fail (Okoroma, 2000). It is the putting together presupposed actions in an attempt to accomplishing set goals. School plant planning and management therefore deal with constructions and maintenance of school building, workshop, laboratories and totality of physical facilities. However, this requires maximum cooperation and hard work from the principals, teachers, students and other school personnel as well as the community. The common goal of operation and maintenance is to keep school plants in the best possible condition at all times.
Ayeni (2008) asserted that school plant planning usually implies building and provision of physical equipment in the school for the fulfillment of the designed goals and objectives. This scholar believes that the principals have to create opportunities to tap the creative potentials of teachers, school administrators, professionals and non-professional groups that functions as a subsidiary bodies or agencies. Thus, it is only when the cooperation and collective efforts of these people had been sought and won that wastes from lopsided planning can be avoided.
According to Odufowokan (2011) school plant planning and management also reflects on: instructional, administrative, convenience space and accessories planning which are essential in teaching-learning
process. The extent to which these spaces could enhance teaching and learning depends on their location within the school compound, their structures, and accessories. It is believed that a well-planned school plant will gear up expected outcomes of education that will facilitate good social and academic emancipation.

However, Akinyemi (2013) maintained that in order to plan the school plant facilities, the needs of the school has to be considered in respect of:

a. The age and number of students using the facility
b. The regularity of use of facility
c. The maintenance of the present plant facilities
d. The sitting or locating of every plant facilities in relation to the master plan.

The above illustration has certain consequences on the future development and growth of the educational sector. Thus, maintaining high level of students’ academic performance may not be guaranteed where instructional space such as classrooms, libraries, technical workshops and laboratories are structurally defective, that is, not properly ventilated and spacious enough for curriculum activities (Ajayi, 2007). Consequently, Ayeni (2008) maintained that for school plants to be meaningful and contribute to effectiveness of education, it has to meet the following standards:

- The building has to be designed to satisfy the pupils’ physical and emotional needs.
- Meet the objective of education in the area where the school is to be located.
- The school building must be planned to make maximum contribution to the educational programme both at present and in future.
- The plan need not be too rigid but should accommodate new development in the educational system either of local, state or national level.
- There must be strict compliance with the outline of council of educational facilities planners
- The growth of the community where the school is located had be considered.
- There must be spaces for health centers, parks recreational facilities, and street and highways public utilities.
- The school has to be nearer and accessible to the students i.e. it must not be too far for students to trek to avoid fatigue by the students.
- The school plant has to be planned in such a way that it should be a functional one i.e. it has to meet the performance needs of the pupils. This implies that the schools need to be comprehensive where students could learn various courses like: sciences, technical, commercial and so on.
- It also has to meet the students’ social needs in form of opportunity to interact with one another
- It must also meet the psychological needs of the students in terms of self-awareness creation and performance within potentials.
- The designing of the school plant must also make it mandatory the integration of any policy, procedure, directive or rules on educational at National level.
- The school plant must be free from danger and health hazard. Its social condition must be suitable i.e. it must not be too muddy, rocky or hilly. The choice site must have a natural beauty and there must be space for expansion which later will be necessary.

Kolawole (2000), Adepoju and Akinwunmi (2001) and Fehintola (2009) as cited in Akinyemi (2013) revealed in their respective studies that schools that are well planned, maintain higher students’ academic performance. It is in line with the above fact that Oluchukwu (2000) asserted that school plant planning is an essential aspect of educational planning and unless schools are well sited, buildings adequately constructed and equipment adequately utilized and maintained, much teaching and learning may not take place.

Akinyemi (2013) outlined the rational for school plant planning to reflect on:

a. Ensuring that quality education is received in a conducive environment.
b. Making sure that school plants are made relevant to the academic needs of public secondary school.
c. Guaranteeing or avoidance of under or over estimation of school project.
d. Saving cost while achieving the educational objectives.
While emphasizing the importance of school plants planning to students’ learning outcome, Oyesola (2007) stated that the main objective of school plants planning is to satisfy educational goals which have been pre-determined by educational planners. It is emphasized that better planned school plant will enhance better school programmes and the community needs by providing a place for psychological and physical safety for students and teachers. It is likely that poor instructional space planning may lead to poor teaching and learning situation which in turn may lead to poor students’ learning outcomes. Stricherz (2000) as cited in Ajayi and Yusuf (2010), in his study showed that students’ achievement lags in shabby school buildings, that is, those with poor or no science laboratory, library, technical workshop, inadequate ventilation. School plant planning is very important because any error at this stage will have adverse effect on the implementation of the set objectives and consequently on the students’ general rate of learning (Akinyemi, 2013). Thus, school plants which are also referred to as physical facilities available in the school system need to be well planned to enhance better learning outcomes of the students. This is because the aim of planning school plant is always to ensure that favorable environment for learning is provided and this can only be done through careful choice of school site, adequate provision of buildings and facilities (Ninikanwa, 2014).

**Procurement of school plants**

One significant aspect of school plant practices is its equipment and facilities for functional operation of the educational activities. Onwurah (2004) stressed that the following points be taken into consideration while procuring educational facilities:

1. School administrations, supervisors and teachers have be aware of modern trends in equipment. For example, desks and seats tend towards greater comfort and improved posture. There is also improvement in texts or reference books, lighting fixtures, charts, audio-visual aids, game equipment etc.

2. Instructional equipment need be working or functional conditions. Laboratory tables be comfortable and of reasonable heights. Dormitories be equipped with box rooms and, if possible, wardrobes.

3. Committees mainly of administrators, supervisors and teachers, with representatives of certain professionals like: architects and businessmen may be used for procuring equipment. This serves as aids and safeguards.

4. Sufficient funds be provided for procuring educational facilities.

Ejieh, Fadipe and Ajaredi (2010), asserted that equipment and furniture requirements are determined by the content of curriculum and teaching activities associated with them, needs of the students and the staff for comfortable and healthful accommodation, the approaches of the teachers to lesson delivery; functions and services performed by the non-teaching staff, recreational activities of students and staff members among others are virtually considered. Accordingly, Ninikanwo (2014) noted that since school plant is a tool for implementing the school programme, the determination of the requirements depends primarily on: the nature of the schools programmes, method of delivery needs of students and staff of the school. Thus, procurement of items needs to be appropriated in consonance with the designed objectives of acquiring curriculum content and job satisfaction. The procurement has to adhere to modern trends that take the students’ and administrative demands (Nwokike, 2012). It is stressed further that their durability, the school location as well as available funds for their purchase and maintenance be considered also. Olutola (1981) as cited in Olujide, 2001) argued that the principals are to pay attention to the extent of use of the present school plant to ensure effective use before buying new ones.

Also, the number and nature of students to be accommodated now and in the near future has to be considered. An evaluation of the current condition of the facilities to determine those that require rehabilitation for further use and those that may be abandoned in near future has to be taken into account by the principals. The procurement of school plant in any secondary school depends entirely on the government and proprietor to provide the bulk of the school plant while the principal purchases minor items that are needed for emergency use through the imprest (Nwokike, 2012). In other words, it is posited that the federal, state and local governments remain the paramount suppliers of school plant items. By this, the principals always forward their requisition in advance to the state education management...
board to ensure their supply. In all, the procurement of school plant materials has to be based on the approved educational guidelines and standards. By so doing, the procured equipment and facilities are made to serve the purpose of enhancing teaching and learning in the schools for the realization of educational goals and objectives.

Utilization of school plants
The procurement of facilities is one thing, the effective utilization is another and the success or failure of any organization, business or enterprise depends highly on the proper management and utilization of human and material resources. Effective management and utilization increases productivity (Uloma, 2011).

Utilization is the degree or extent to which an item has been put into effective use (Adeboyeje, 2000). It is of various degrees and according to Uko (2015) this includes: non-utilization, underutilization, maximum utilization, optimum utilization and over-utilization. Non-utilization occurs when a facility is not put into use at all; when a facility is not used to its fullest capacity, underutilization occurs. There is over-utilization, when a facility is used more than its capacity. All of these require the ingenuity of the principal to balance the usage and maintenance of available facilities. It is the responsibility of the school administrator to ensure that the school plant is ready for use when due and that it is correctly used for the purpose for which it is meant. Effective use of school plants requires orientation to the users, educating the intending beneficiaries the values or reasons for its provisions of the any materials or equipment in the school system. By this, the principal, staff, consultant, architect and engineer has to participate in this orientation for effective collaboration in the utilization. This is necessary in order to prevent any disruption of educational programme.

Kochlar cited in Ejieh, Fadipe, and Ajaredi (2010) opined that using the school plant for educational purposes requires careful direction or much of its effectiveness can be lost. If the design of a facility follows function, then the type of activity specified for the facility should be taking place in that facility otherwise the facility is being incorrectly used. Effective use of the school buildings and classrooms needs careful planning and supervision/inspection.

Effective use of school buildings involves the following according to Ejieh, et al (2010):

1. Ascertaining that each room in the building is used to its capacity. It will amount to under-utilization if a classroom meant for 40 students is occupied by 20 students or less for most of the school year. On the other hand, assigning 50 or more children to a classroom meant for 40 of them is tantamount to overcrowding which is educationally unadvisable.
2. Ensuring that assignment of space reflects the best educational use of that space. Educational effectiveness in the use of space is not ensured by holding Literature or History lessons in Chemistry or Biology laboratories or English or Biology lessons in the Fine Art room. In each of the above cited cases, there may be much distraction of students’ attention when lessons are not conducted in the appropriate learning spaces.
3. Making sure that all non-instructional spaces are used for their intended purposes. When store are used for purpose other than storing equipment, materials and supplies, they may be put in places where they may easily be damaged or stolen. Unless adequate care is taken, it may take some time to locate some of them when they are needed.
4. By studying the allocation of students to learning spaces as reflected on the school timetable, armed with a good knowledge of students’ enrolment in each class and the scheduled for use in the school can ensure better results by occasionally conducting spaces utilization studies in the school. Following this, the administrator can make such necessary amendment as will ensure optimal use of spaces in the school.
5. The principal need to produce and give to every teacher a lot of available special teaching equipment, materials and supplies in their respective subject areas and encourage them to make use of them regularly.
6. Making the occupants aware of any newly purchased equipment in the school and if necessary organize a workshop, demonstration or talk on how to use it for the relevant teachers.
8. Undertaking some classrooms visit from time to time to see whether and how they use the available equipment.

9. Members of the community need not be denied the use of any school facility. When such requests are made, the school head has to make the conditions for the use of the facilities known to them. School plant is a costly investment which must be protected by careful and proper operation and utilization. It is mostly the responsibility of the school administrator to ensure that the facility is kept open for use and also kept neat or made to be in a good sanitary condition for the occupants. The school principal has to ensure that they are optimally used to the advantage of students, teachers, and members of the local community. In managing facilities, and for them to meet the objectives, caution must be taken in the usage, that is, facilities must not be underutilized nor over-utilized, but optimally used (Uko, 2015). This implies that maximum utilization occurs when facilities are put into effective use in line with the primary objectives and its failure will lead to counter-productive.

**METHODOLOGY**

The descriptive survey research design was adopted for this study. It aimed at providing opinions of the respondents on influence of school plant management on principals’ administration of senior secondary schools in Rivers State, Nigeria. The population of the study was 460 comprising of 273 principals of public senior secondary schools in Rivers State and 187 Supervisors of the Post Primary Schools Board. The entire population was used for the study since it was of a manageable size. The instrument for data collection was a self-developed structured questionnaire, titled, “School Plant and principals’ Management Questionnaire” (SPPMQ). 648 copies of the questionnaires were distributed and retrieved 381 for the analysis of research questions and hypotheses using Z-test.
RESULTS

Research Question 1: To what extent does school plant planning influence administration of senior secondary schools in Rivers State, Nigeria?

Table 4.1: Mean Rating on Extent to which School Plant Planning Influence Administration of Senior Secondary Schools (N=381)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Statements</th>
<th>PRINCIPAL S (201)</th>
<th>Remarks</th>
<th>BOARD SUP. (180)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$\bar{X}$</td>
<td>STD</td>
<td>$\bar{X}$</td>
<td>STD</td>
</tr>
<tr>
<td>1.</td>
<td>A well planned classroom helps principal’s to avert overcrowding and achieving high performance amongst students.</td>
<td>3.38 0.96</td>
<td>HE</td>
<td>3.35 0.99</td>
<td>HE</td>
</tr>
<tr>
<td>2.</td>
<td>A well allocated staff office helps principal’s to gain better performance amongst teachers.</td>
<td>3.35 0.98</td>
<td>HE</td>
<td>3.33 1.04</td>
<td>HE</td>
</tr>
<tr>
<td>3.</td>
<td>Even distribution of learning materials by principals encourages smooth administration.</td>
<td>3.37 0.95</td>
<td>HE</td>
<td>3.35 1.03</td>
<td>HE</td>
</tr>
<tr>
<td>4.</td>
<td>A proper utilization plan of facilities by principal’s helps avert conflicts.</td>
<td>3.45 0.90</td>
<td>HE</td>
<td>3.41 0.97</td>
<td>HE</td>
</tr>
<tr>
<td>5.</td>
<td>Planning gives principal’s the insight of facilities that needs attention and helps to create a conducive learning environment.</td>
<td>3.39 0.93</td>
<td>HE</td>
<td>3.36 1.01</td>
<td>HE</td>
</tr>
</tbody>
</table>

Total Mean/SD 16.94 4.72 16.8 5.04
Grand Mean/SD 3.39 0.94 HE 3.36 1.01 HE

The data presented in table 4.1 showed the responses of the respondents in the various average mean scores of 3.37, 3.34, 3.36, 3.43 and 3.38 respectively. This implies that the respondents agreed to the point that a well-planned classroom helps principals to avert overcrowding, even distribution of learning materials, proper utilization plan of facilities to avert conflicts, gives principal’s an insight of facilities that needs attention and create a conducive learning environment. The table also revealed a grand mean of 3.38 and a grand standard deviation of 0.89 which indicated that planning of school plant to a high extent influences administration of senior secondary schools in Rivers State, Nigeria as responded by the respondents.
**Research Question 2:** To what extent do effective procurement practices of school plant influence administration of senior secondary schools in Rivers State, Nigeria?

**Table 4.2: Mean Rating on Extent to which effective procurement practices of school plants influence administration of senior secondary schools (N=381)**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Statements</th>
<th>PRINCIPAL Remarks (201)</th>
<th>BOARD SUP. Remarks (180)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$X$ STD</td>
<td>$\bar{X}$ STD</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Principals’ effort in ensuring effective procurement practices give room for quality purchases.</td>
<td>3.41 0.90 HE</td>
<td>3.40 0.96 HE</td>
<td>HE</td>
</tr>
<tr>
<td>7.</td>
<td>Strict adherence to procurement practices makes principals prudent managers.</td>
<td>3.38 0.92 HE</td>
<td>3.36 1.02 HE</td>
<td>HE</td>
</tr>
<tr>
<td>8.</td>
<td>Adherence to procurement practices helps the principal to avert fraud and wasteful spending.</td>
<td>3.37 0.95 HE</td>
<td>3.36 1.01 HE</td>
<td>HE</td>
</tr>
<tr>
<td>9.</td>
<td>Principals’ effort in ensuring effective procurement practices brings about proper record keeping and promotes accountability.</td>
<td>3.38 0.96 HE</td>
<td>3.35 1.03 HE</td>
<td>HE</td>
</tr>
<tr>
<td>10.</td>
<td>Strict adherence to procurement practices by principals ensures current stocking of learning material/facilities which improves quality of service delivery.</td>
<td>3.43 0.91 HE</td>
<td>3.39 0.97 HE</td>
<td>HE</td>
</tr>
<tr>
<td></td>
<td><strong>Total Mean/SD</strong></td>
<td><strong>16.97 4.64</strong></td>
<td><strong>16.86 4.99</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Grand Mean/SD</strong></td>
<td><strong>3.39 0.93</strong></td>
<td><strong>3.37 0.99</strong></td>
<td>HE</td>
</tr>
</tbody>
</table>

The data presented in table 4.2 showed the responses of the respondents in the various average mean scores of 3.41, 3.37, 3.37, 3.37 and 3.41 which implies that the respondents agreed to the point that principals effort in ensuring effective procurement practices give room for quality purchases, strict adherence to procurement practices makes principals prudent managers, adherence to procurement practices helps the principal to avert fraud and wasteful spending; proper record keeping and promotes accountability and strict adherence to procurement practices by principals ensures current stocking of learning material/facilities which improves quality of service delivery. The table also revealed a grand mean of 3.38 and a grand standard deviation of 0.96 which indicated that effective procurement practices of school plant to a high extent influences administration of senior secondary schools in Rivers State, Nigeria as responded by the respondents.
Hypothesis 1: There is no significant difference in the mean ratings of the principals and senior secondary school board supervisors on the extent to which school plant planning influence administration of senior secondary schools in Rivers State, Nigeria.

Table 4.3:  
\textbf{z-test Result on Extent to which School Plant Planning Influences Administration of Senior Secondary Schools}

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>N</th>
<th>Df</th>
<th>\textbf{z-Cal Value}</th>
<th>\textbf{z-Crit Value}</th>
<th>L/Sig</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principals</td>
<td>3.39</td>
<td>0.94</td>
<td>201</td>
<td>379</td>
<td>0.29</td>
<td>1.96</td>
<td>0.05</td>
<td>HO$_1$ Failed to reject</td>
</tr>
<tr>
<td>Board Supervisors</td>
<td>3.36</td>
<td>1.01</td>
<td>180</td>
<td>379</td>
<td>0.20</td>
<td>1.96</td>
<td>0.05</td>
<td>HO$_2$ Failed to reject</td>
</tr>
</tbody>
</table>

Table 4.3 above revealed a $z$-calculated value of 0.29 which is less than the standard $z$-critical value of 1.96; thus, the null hypothesis was accepted. The result therefore is that there is no significant difference in the mean ratings of Principals and Board Supervisors on extent to which school plant planning influences administration of senior secondary schools in Rivers State, Nigeria.

Hypothesis 2: There is no significant difference in the mean ratings of principals and senior secondary school board supervisors on the extent to which effective procurement practices of school plant influence administration of senior secondary schools.

Table 4.4:  
\textbf{z-test Result on Extent to which effective procurement practices of School Plant Influences Administration Senior Secondary Schools}

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>N</th>
<th>Df</th>
<th>\textbf{z-Cal Value}</th>
<th>\textbf{z-Crit Value}</th>
<th>L/Sig</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principals</td>
<td>3.39</td>
<td>0.93</td>
<td>201</td>
<td>379</td>
<td>0.20</td>
<td>1.96</td>
<td>0.05</td>
<td>HO$_2$ Failed to reject</td>
</tr>
<tr>
<td>Board Supervisors</td>
<td>3.37</td>
<td>0.99</td>
<td>180</td>
<td>379</td>
<td>0.20</td>
<td>1.96</td>
<td>0.05</td>
<td>HO$_2$ Failed to reject</td>
</tr>
</tbody>
</table>

Table 4.4 above revealed a $z$-calculated value of 0.20 which is less than the standard $z$-critical value of 1.96; thus, the null hypothesis was accepted. The result therefore is that there is no significant difference in the mean ratings of Principals and Board Supervisors on extent to which effective procurement practices of school plants influences administration of senior secondary schools.

DISCUSSION OF FINDINGS

The findings on research question one with respect to the extent to which school plant planning influences administration of senior secondary schools in Rivers State indicated that the respondents agreed to the facts that a well-planned classroom helps principals to avert overcrowding and achieve high performance amongst students, even distribution of learning materials, proper utilization of facilities to avert conflicts, gives principals insight of facilities that needs attention as well as creating a conducive learning environment. Thus, the study revealed that school plant planning to a high extent influences the administration of senior secondary schools. These findings are in agreement with Ajayi (2007) who maintained that high level of students’ academic performance may not be guaranteed where instructional space such as classrooms, libraries, technical workshops and laboratories are structurally defective, not properly ventilated nor spacious enough for use.
The above assertion findings also with Kolawole (2000), Adepoju and Akinwunmi (2001) and Fehintola (2009) as cited in Akinyemi (2013) who revealed in their respective studies that schools that are well planned, maintain higher students’ academic performance. This is also in agreement who Ninikanwa (2014) who opined that the aim of planning school plant is to ensure that favourable environment for learning is provided and this can only be done through careful choice of school site, adequate provision of buildings and facilities. Thus, it becomes obvious that when planning of school plants is effected, it influences the administrative management of principals who is the administrative head of secondary school.

Result on hypothesis two proved that there is no significant difference in the mean ratings of principals and senior secondary school board supervisors on the extent to which school plant planning influences administration of senior secondary schools. This indicated that both Principals and Senior Secondary School Board Supervisors agreed to the facts that school plant planning influences the administration of secondary schools as this will ensure better performance amongst students and teachers.

On the influence of effective procurement of school plant in administration of senior secondary schools in Rivers State, the respondents agreed to the statements that principals’ effort in ensuring effective procurement practices give room for quality purchases of relevant materials and equipment, strict adherence to procurement practices makes principals prudent managers; adherence to procurement practices helps the principal to avert fraud and wasteful spending; principals’ effort in ensuring effective procurement practices brings about proper record keeping and promotes accountability and strict adherence to procurement practices by principals ensures current stocking of learning material/facilities which improves quality of service delivery. These findings are in agreement with Ninikanwo (2014) who noted that since school plant is a tool for implementing the school programme, the determination of the requirements for them depends primarily on the nature of the schools programme and the methods of delivery and also on the needs of students and staff of the school. The finding also aligned with the perception of Nwokike (2012) who asserted that procurement has to adhere to modern trends that take the students’ comfort and improved posture into account. When principals are fully involved in the procurement of school plants it enable them bring in their wealth of ideas based on experience from the field in order to make better choices.

Result on hypothesis two proved that there is no significant difference in the mean ratings of Principals and Senior Secondary School Board Supervisors on the extent to which effective procurement practices of school plants influences administration of senior secondary schools. This indicated that both group of respondents; principals and senior secondary school board supervisors, agreed to the facts that effective procurement practices of school plants influences administration of senior secondary schools as this gives room for quality purchases and avoidance of wastage and fraud.

**CONCLUSION**

Based on the results of the findings, it was concluded that principals need adequate planning and procurement for effective utilization of school plants. In other words, a well-planned school plant produces expected outcomes of education of the students. Thus, it is only when the cooperation and collective efforts of principals and teachers are integrated that wastes from lopsided planning can be avoided.

**RECOMMENDATIONS**

Based on the findings of this study, the following recommendations were made:
- Principals should plan for the allocation and use of available school plant in order to attain effective usage.
- Principals of secondary schools should be involved in the procurement processes of school plant and facility audit report to meet the necessary demands of schools.
REFERENCES


