

## **GENDER AND SCHOOL PLANT MAINTENANCE EFFECTIVENESS: REBUILDING TRUST AMONG PRINCIPALS IN PUBLIC SECONDARY SCHOOLS IN AKWA IBOM STATE**

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### **Abstract**

The study examined Gender and School Plant Maintenance Effectiveness among Principals in Public Secondary Schools in Akwa Ibom State. Two hypotheses were formulated to guide the study. Similarly, ex-post facto design was adopted for the study. The Population for the study consisted of 253 principals. The sample of the study is made up of 60 principals representing 25% of the population using stratified random sampling technique. Relevant data for the study was collected through a structured questionnaire tagged: Gender and School Plant Maintenance Effectiveness Questionnaire (GSPMEQ). The instrument was validated by three experts in the field of educational measurement and evaluation. Same was tested with Cronbach Alpha coefficient; 0.78 was obtained indicating a high reliability coefficient. Data obtained were analysed using mean and standard deviation to answer research questions while the independent t-test was used to test the hypotheses at 0.05 alpha level of significance. The result revealed that there was a significant difference in instructional and administrative facilities maintenance effectiveness based on gender; the male principals scored higher in mean rating of facilities maintenance effectiveness than their female counterparts. Among others, women were recommended to form professional networking clubs where they mentor each other to assist in confidence building.

**Keywords:** Gender, School Plant Maintenance, Effectiveness, Principal, Public Secondary Schools.

### **Introduction**

Maintenance of school facilities is one of the greatest tasks that need a close attention in school administration. Issues around handling of school plant are of critical importance today especially as it concerns public schools in Akwa Ibom State. Educational facilities have been discovered to have positive relationship with the standard and quality of education because it is believed that a well maintained school plant will gear up the expected outcome in education. The main purpose of school plant maintenance is to safeguard the public's investment in the facilities, increase the functional life of the building and provide the best possible environment for teaching and learning. Three broad categories of maintenance needs are exterior maintenance, interior maintenance, and mechanical systems. Exterior maintenance is concerned with the preservation of the exposed surfaces of roofs, walls, windows and doors. Interior maintenance involves all the services required to keep the inside of the building in safe, pleasing and usable condition. This

includes surface and finishes, doors and windows, fixed equipment and fire protection while the mechanical systems involves heating, ventilation, electrical and sanitary.

According to Ajayi (2007) the high level of students' learning outcome may not be guaranteed where school plant such as instructional and administrative facilities are ill sited, structurally defective, improperly ventilated and not spacious enough for use. The term gender has become a household name in the male and female world of inequality and insensitivity. It is a term synonymous with feminism and almost every part of the globe has one way or the order in expressing gender insensitivity culturally or religiously. Given this, the word has been ambiguously used and most times been abused. This implies that the principle of genderism is not natural; rather it conveys an artificial or man-made ideology based on the different world views. Therefore the understanding of gender is hinged on different world or cultural mindset, hence the way Africans and Nigerians in particular express gender is different from the western world.

Gender and school plant maintenance effectiveness has been of great concern to a lot of people especially where a good number of people do not believe in women leadership. This is why some people believe that administration of schools including school plant maintenance should be the sole responsibilities of male principals, whom they trust will be effective in facilities administration than their female counterparts. Men believed that even though women are kind and sympathetic that they are not good as leaders. In spite of the great number of females in teaching profession in Nigeria, it is only a very negligible number who boast of leadership position. This is because in Africa and in Nigeria particularly women are seen as second class citizen as such they believe if women should work, their jobs should be around the home where they can give attention to their children and their husbands. Olayele in Onele and Aja-Okorie (2015) opined that both male and female school heads are supposed to play an active part and also show uniformity in their administrative process as it relates to information and execution of organizational policies and instructional programmes. Therefore no special area of assignment should be left for a particular sex, male and female should be treated equally. In recent times some women are taking part in leadership in student unionism on campus, some are principals, vice principals and some are even involved in politics.

Schools in Nigeria and Akwa Ibom State can easily be identified with dilapidated buildings. The maintenance of such schools could have been handled by both male and female principals, however some people hold various views about women and leadership, men feel women are not capable when it comes to leadership, some philosophers and scientists and even clergies see women as God's second mistake, while men like St Thomas Aquinas regards her as something deficient. In the light of the above, some researchers have come up with the opinion that male principals are more effective in school plant maintenance than their female counterpart, but some argue that women generally are good in home keeping and maintenance, and as such will be very effective in school facilities maintenance. Be that as it may, there is no certainty about the difference that exist between male and female principals in school plant maintenance especially in public secondary schools in Akwa Ibom State. It is on this premise that the study seeks to examine the difference in school plant maintenance effectiveness between male and female principals in public secondary school in the area.

### **Conceptualization of Variables**

Gender issues were not given prominence until recently. Similarly, women education was not given credence until the emergence of the Christian missionaries in Nigeria in the 19th century which has helped to improve the social condition of women in Nigeria. Eme (2010) affirmed that during colonial period the effort of the missionaries supported by the colonial administration established many schools in Nigeria which encourage the girl child education in Nigeria. However Eme observed that the missionary's type of education for the girls was domesticated in nature, emphasis was on sewing, knitting, domestic science and that this type of education did not create awareness on public issues among the women and was insufficient to equipping the women on confronting the men folk who were already dominating in leadership.

Gwamna (2008) observed that women's place of equality with men in the rulership of the world has been unjustly denied since the fall of man in the Garden of Eden, that theological discourse in Africa has been dominated by men, however, he has not explained the reason for this rather than the fact that women are seen as not being able when it comes to leadership. According to Eme (2010) women were to play supportive roles to their husband in the home, that the strong desire for more title, more wealth, recognition and more children to work in farm has made some men to abuse the institution of polygamy in the traditional society. This made men to marry many wives than necessary and use them as their labourers in the farm in order to have much produce from the farm.

Similarly analyzing the issue of gender O'Donovan (2000) identifies Africa as one of the continents with extreme viewpoints about women. He adduced that in some African cultures, women are considered to be much less important and valued than men. They are regarded as being of less value than certain forms of prosperity, such as cattle. In some culture they are treated the way children are being treated. And for some they are regarded as slaves.

School facilities maintenance is concerned with facilities management. It is about providing clean and safe environments for students. School facilities maintenance affects the physical, educational and financial foundation of the school organization and therefore should be a focus of both its day-to-day operations and long-range management priorities. Maintenance involves those activities which are concerned with keeping grounds, buildings and equipment at their original condition of completeness of efficiency, either through repairs, renovation or by replacements. It therefore means that an organization must plan to meet the challenges of effective facilities maintenance, because the consequences affect teaching and learning, student and staff health, day-to-day building operations and the long-range fiscal outlook of the organization because effective facilities maintenance plan serves as evidence that school facilities are cared for appropriately. Similarly Amanchukwu and Ololube, (2015) opined that a strong relationship exists between the quality of a school plant and the academic achievement of students. The majority of parents, who are aware of this fact always, appreciate well-equipped schools with high quality infrastructural facilities for their children and wards.

Ogbilikana (2010) while conducting a research in Rivers State secondary schools on provision and maintenance of School Plants showed that the available school facilities in the area sampled for the studies were inadequate and not in good working condition. The study recommended an interaction between the school administrators and the government in the maintenance of educational facilities in the area. Similarly instructional facilities are facilities that

are specifically meant for teaching and learning .e.g. classroom, workshops, laboratory, library, home economics workshop, art room, music studio, audio-visual equipment, multipurpose hall, zoological garden and agricultural farms and any other space where students receive instructions. Mbipom (2000) in the same vein asserted that the school facilities is the interpretation of the school curriculum hence the appearance of the school interpret the tone and climate of the school. Thus the school plant management is the function of the school administrator whether male or female. Mbipom maintained that the conducive atmosphere for learning is such that consist of better school buildings and instructional facilities. Hence Mbipom calls for the provision of a wider range of instructional materials such as technological devices like computers, trail machines among others.

Akani (2015) posited that a laboratory is a workshop where practical and experimental scientific exercises are conducted by science teachers for the benefit of the students. The laboratory exercises include experiment and other activities which help the student in acquiring scientific skills and knowledge. Likewise a laboratory is a room or building or special place equipped and set aside for practical and experimental studies to take place (Omiko, 2009). This implies that science teaching and learning cannot be completely done in a technical school where there is no equipped laboratory. Affirming on this; Irem (2014) opined that there is a general consensus among science educators that the laboratory occupies a central position in science instruction. It could be described as a place where theoretical work is practicalized and such practical in any learning experience involves students' activities such as observing, counting, measuring, experimenting, recording or carrying out field work. These activities are totally different from the theoretical work which involves listening to talks and taking down notes from the teacher. Irem concluded that the teaching of science which is a practical course requires practical laboratory activities because experiment is the hall mark of science education. Similarly, Yara and Otieno (2010) adjudged that no course in science can be considered as complete without including some practical work.

The classroom is an operational venue in school which holds students and teachers together and offer them the opportunity of achieving the purpose of education.. Osakwe (2014) maintained that a classroom is a room in school where a group of students and pupils are taught lessons. Therefore a classroom should be well maintained and furnished in order to achieve an effective teaching and learning process free from behavioural problems ,with a goal of maintaining a positive and productive teaching environment for a quality teaching outcome which will in turn produce a better students' academic performance. Collaborating with this fact Ibijoku (2012), asserted that a well-designed and functional classroom with a wide array of teaching aids provide effective delivery of the school's curriculum and are positively related to the students' academic performance. Ibijoku maintained that no meaningful teaching takes place in an unmaintained and overcrowded classroom.

School library according to Owate and Okpa, (2013) is that part of the school where collection of books, periodicals, magazines and newspapers, films and film strips, video steps recording of all types, slides computer study kits and other information bearing resources are housed for use by teachers and pupils for learning recreational activities, personal interest and interpersonal relationship of children in a school. They further postulated that the school library is a medium of education and it plays a similar role in our curriculum as the science and language

laboratory. Library is an essential factor in the teaching learning process. It performs one of the important educational services since the education process functions in the world of books and other instructional materials.

Administrative facilities which consist of the principal and vice principal offices, the reception, secretary's office, staff room, guidance and counselling office among others play vital roles in teaching and learning process whereby creating a link between the staff and students.. Similarly Mbipom (2000) opined that administration is an act and service of harnessing and using available resources to ensure that the pre-determined goals of the organization are achieved within a given time and in a manner that suits the policy of that organization. Mbipom also asserted that the physical condition and general appearance of the entire school buildings, equipment and surroundings facilitates teaching learning process. To further buttress on the issues of administrative goals and objectives which is hinged on administrative facilities maintenance, Etuk et al (2015) opined that educational administration is a social process concern with creating, maintaining, stimulating, controlling and unifying formal and informal organized human and material energies within a unified system designed to accomplish predetermined objectives or goals. This implies that maintenance of education facilities both human and materials resources are within the work schedule of the school administration. Effanga in Etuk et al (2015) postulated that staff personnel administration involves the effective management and utilization of the teaching in the school. Effanga also affirmed that the principal as the chief executive of the school performs more roles with corresponding multiple expectations. This confirms the assumptions of Mbipom, (2000) that the principal is the supervisor with respect to the curriculum and investigational programme of the school.

It is worthy to state that administrative challenges of which lack of school plant maintenance is part of could invariably influence the teaching and learning process negatively in the school thereby affecting the academic performance of the students .Anyio (2016) identified some challenges facing educational administration in Nigeria such as: inadequate and obsolete infrastructures, poor library facilities, insufficient quality control, high incidence of examination malpractice, cultism and social academic vices, staff shortage and lack of information communication skills and so on. In other to grapple with the various challenges associated with the office of the school administrator, i.e. the principal, the administrative facilities need to be properly and regularly maintained in order to give the principal and other staff the comfort needed to run their offices and for a daily supervision of both teachers and students effectiveness.

Oleforo (2010) maintained that administrative function of the principal involves both human and material resources supervision which facilitates effective maintenance of educational facilities. Supervision of the school head include the overseeing of the school facilities and bringing general maintenance to bear at the appropriate time. Agreeing to this fact Agoha, (2008) asserted that administration is essential in every human organization ranging from industrial firms, hospital organizations, business enterprises, churches and educational institutions for the achievement of stated objectives, that school as an organization cannot achieve its goals without the proper and effective administration of both human and material resources .

Effectiveness is a house hold name as far as education is concerned. It is concerned with how to attain the level of objectives. It is the capability or ability of producing a desired result or

output. It involves decision making, planning, accountability, targeted problem solving and quality which lead to the attainment of objectives. Ogbonnaya (2010) adduced that effectiveness is concerned with achieving objectives, that an effective school is one whose operations are in consonance with its goals and objectives. Okorie (2009) who adjudges that the ultimate goal of any organization lies in its effectiveness, posited that the effectiveness of any an educational institution is analysed within the extent to which students are successful, teachers satisfied and staff morale is high. For Okorie, decision making is key in achieving effectiveness. Okorie describes decision effectiveness in terms of quality, acceptance and timeliness. Therefore decision effectiveness refers to the extent to which the decision achieves the goals of decision makers. Given the above, school plant maintenance effectiveness has to do with decision making in lieu of quality facilities maintenance to the level which will lead to a free flow of teaching /learning process, while Maduagwu (2006) holds that accountability serves as a vehicle for effectiveness in the management of all resources of which school facilities are part of. This implies that accountability is necessary for effective facilities maintenance in schools.

### **Null Hypotheses**

In order to achieve the objectives of this study, the following null hypotheses were formulated.

Ho<sub>1</sub>: There is no significant difference between male and female principals in instructional facilities maintenance effectiveness in Akwa Ibom State public secondary schools

Ho<sub>2</sub>: There is no significant difference between male and female principal in administrative facilities maintenance effectiveness in Akwa Ibom State public secondary schools.

### **Methodology**

The research adopted an ex-post facto design. The population of the study included all the two hundred and fifty three (253) principals in public secondary schools. The sample size for the study consists of 60 Principals drawn from 152 public secondary schools in the state which represented 25% of the total population. Schools were stratified into three senatorial districts then ballot system was used to select schools from each senatorial district which constituted a stratum for this study. 25% of the Secondary School population were selected from each zone while stratified random sampling system was used to pick schools from the stratum. This was in order to give all schools equal opportunity and to avoid bias, the relevant data for the study was collected through a structured questionnaire titled: Gender and School Plant Maintenance Effectiveness Questionnaire (GSPMEQ). The questionnaire was divided into two sections. Section A was responsible for demographic data while Section B from Part 1-2 examined the gender difference in Instructional Facilities Maintenance and Administrative Facilities Maintenance. A four point rating scale was used to structure the questionnaire as follows: Strongly Agreed (SA) = 4, Agree (A) =3, Disagree (D) =2, Strongly Disagree (SD) =1. Five items were allotted to each of the two variables making a total of 10 items. The negatively awarded items were measured as Strongly Agreed (SA) =1, Agreed (A) =2, Disagreed (D) =3, Strongly Disagreed (SD) =4. Three experts in the Department of Measurement and Evaluation in the University of Uyo updated the contents of the instrument.

The reliability was determined using Cronbach’s reliability and the index was .854 and .713 indicating a high reliability coefficient for Instructional and Administrative Facilities Maintenance Effectiveness. Mean (x) and standard deviation were used to answer research question while hypotheses were tested with independent t-test at 0.05.

**Research Questions**

1. What is the difference between Male and Female Principals in Instructional Facilities Maintenance Effectiveness in Public Secondary Schools in Akwa Ibom State?
2. What is the difference between Male and Female Principals in Administrative facilities Maintenance Effectiveness in public Secondary Schools in Akwa Ibom State?

**Result.**

**Null Hypothesis 1:** There is no significant difference between male and female principals in instructional facilities maintenance effectiveness in Akwa Ibom State public secondary schools

**Table 1:** Independent t test-statistic on the Instructional Facilities Maintenance Effectiveness

	Gender	N	Mean	SD	df	t-cal	t-crit.	Decision P<05
Instructional facilities	Male	73	15.69	2.09	134	6.983	1.98	*
	Female	63	11.93	3.37				

The outcome in Table 1 shows that the calculated t-value of 6.983 is greater than the critical t-value of 1.98 at .05 alpha levels with 134 degree of freedom. This means that there is a significant difference between male and female principal instructional facilities maintenance effectiveness. Therefore the null hypothesis which claims that there is no significant difference between male and female principal’s instructional facilities maintenance effectiveness is rejected at 0.05 level of significance.

**Null Hypothesis 2:** There is no Significance Difference between Male and Female Principals in Administrative Facilities Maintenance Effectiveness

**Table 2:** Mean and t-Statistic on the Administrative Facilities Maintenance Effectiveness

	Gender	N	Mean	SD	Df	t-cal	t-crit.	Decision P<05
Administrative facilities	Male	73	14.47	3.26	134	2.460	1.98	sig

Female 63 12.85 3.40

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The outcome in Table 2 shows that the calculated t-value of 2.460 is greater than the critical t-value of 1.98 at .05 alpha levels with 134 degree of freedom. This means that there is a significant difference between male and female principal Administrative facilities maintenance effectiveness. There the null hypothesis which claims that there is no significant difference between male and female principal's administrative facilities maintenance effectiveness is rejected at 0.05 level of significance.

## Discussion of Findings

### Male and Female Principal Instructional Facilities Maintenance Effectiveness

The finding reveals that there is a significance difference in principals' instructional facilities maintenance effectiveness based on gender. Instructional facilities such as classrooms, libraries, laboratories and technical workshop, geography and agricultural gardens etc play essential function in school leadership. This agrees with Amanchukwu and Ololube (2015) that facilities cannot manage themselves except there is good leadership that will set the ball rolling. He mentioned that Leadership, whether in the primary, secondary schools and tertiary institutions, has a vital role to play in the maintenance of school plant because ministry workers do not stay in educational institutions on a daily basis in order to dictate what is going wrong or right with the school plant. He emphasized that the school authorities should be more concerned about what the students' needs are at their developmental stages and instructional levels, that there exist a positive relationship between the educational facilities and academic performance of students.

### Male and Female Principal in Administrative Facilities Maintenance Effectiveness

The finding of the study reveals that there is a significance difference in principals' administrative facilities maintenance effectiveness based on gender. This implies that male and female principals have different approaches to administrative facilities maintenance effectiveness but the function remains the same. This agrees with findings of Onele and Aja-Okorie (2015) who carried out a research in secondary schools in Ebonyi State and the result revealed that there was significant difference in the mean rating of male and female principals on the extent they differ in demonstration of high level of maintenance culture with respect to school plant, forestalling encroachment into school lands and property, collaborating well with education management board in the provision of adequate plant and infrastructure, guiding against misuse of school plant and against its theft destruction as well as collaborating with the host community in the provision of infrastructure/plant.

### Conclusion

The finding of the study shows that male principals have the higher Instructional and Administrative facilities maintenance than their female counterparts. This shows that the male and female principals vary in facilities maintenance effectiveness. This is because people still prefer men to women in position of authority and leadership, be that as it may it is worthy to note that managerial or leadership function does not depend on gender but on personality traits embedded in an individual, this enables individuals to function the way they do.

**Recommendations:** Based on findings, it was recommended that:

1. Federal and state governments should remove the barrier of gender inequality by making sure that certain offices are not reserved for males, but for both males and females; this will give women the opportunity to compete with the men folk and build competence for leadership.
2. Federal and state governments should encourage school plant maintenance in schools by carrying out a regular routine check on facilities maintenance by giving award to deserving principals. This will motivate other principals to consider the effectiveness of school facilities maintenance as core in their leadership process.
3. The ministry of education should come up with a policy where attendance of workshops and seminars is a compulsory requirement for all teachers especially females in order to build skills and knowledge on their careers and give women chances to compete favourably with men. This could be achieved by establishing a forum for women principals in enhancing professional skills and competence.
4. Female teachers should form professional networking clubs where they mentor each other to assist in confidence building, enhancing self-esteem and socialization in preparation for school leadership.

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