Analysis of School Plant Management Practices towards Environmental Aesthetics on State Universities in South East Geo-Political Zone of Nigeria

1Okwara H. U., 2Ukozor F.I., 2Onye C.O. and 2Anyaogu R.

1National Mass Education Commission (NMEC) Zonal Office Owerri, Nigeria.
2Faculty of Education, Imo State University Owerri, Nigeria.

Received: 04 December 2020    Accepted: 10 March 2021    Published: 20 March 2021

ABSTRACT
The study was carried out to analyze school plant management practices towards environmental aesthetics on state universities in south east geo-political zone of Nigeria. Specifically, the study assessed the relationship between school plants procurement and environmental aesthetics; operation of school plants and environmental aesthetics; and the relationship between school plant maintenance and environmental aesthetics of State Universities. Data for the study were collected from 336 respondents from Abia State, Anambra State, Ebonyi State, Enugu State and Imo State using survey method. Pearson Product Moment Correlation PPMC was used to analyze the data collected. From the result, the coefficient of correlation between school plants procurement and environmental aesthetics of State Universities was 0.35, indicating the existence of low but positive relationship between school plants procurement and environmental aesthetics of State Universities. The coefficient of correlation between operation of school plant and environmental aesthetics of State Universities was also low and positive ($r = 0.24$). The coefficient of relationship between school plant maintenance and environmental aesthetics of State Universities was 0.29 implying the existence of low but positive relationship between school plant maintenance and environmental aesthetics in the study area. The study concludes that school plant management practices are very important for sound education of students towards the realization of educational goals and objectives. Hence, it recommended that Government should ensure that adequate funds are made available for the procurement of school plants.

Keywords: Education, aesthetics, school plant, south East Geo-political zone, teaching and learning, University

1. Introduction
The university is considered across the world as the highest educational institution that spurs academic excellence. As a centre of excellence, the university is at all times looked upon as the epitome of perfection and it behooves on all members of the university community to exemplify in any given circumstance the role model attribute inferred by society on the institution and the members thereof. This explains why Idoko (2005) defined a university as an acclaimed centre of excellence where intellectual cross fertilization of ideas systematically takes place, all geared towards the development of the individual intellectual capacity, resourcefulness and character molding for overall societal advancement in all fields of enquiry.

However, it is important to add that besides being referred to as centre of excellence, the structures and personnel practices that sustain the entire system are expected to live up the status. These responsibilities behold on management staff of the universities. Precisely, Akomolafe and Adesua (2016) stated that the ability of the University to carry out such mandates depends on efficiency of the management staff headed by the Vice-chancellor and the Registrar. They are assisted by other Principal Officers like Deputy Vice-chancellors, Bursar and the Librarian, Deans and Directors and Head of Departments as well as numerous administrative staff who are coordinated to achieve university
objectives. It therefore implies that the extent to which the school environment is made conducive for effective teaching and learning predicates on their competencies and leadership abilities.

While a clean learning environment offers physical, emotional and intellectual sense of appeal to staff and students, an unclean environment can facilitate the spread of infectious diseases, and cause other health problems that can impede learning ability and reduce school attendance. According to Anyaogu (2016) school environment does influence what staff and students do and how they feel. Precisely, a well-maintained, bright, colourful and neatly arranged trees, lawns, flowers and functioning physical facilities suggest that the staff and students in that school care about their environment. This brings into fore the place of aesthetics in a school environment.

Aesthetics entails the ways in which humans experience the world through their senses. It is especially concerned with the appreciation of particular objects when they strike the senses in a pleasing manner. For this reason aesthetics most frequently focuses on works of art and other similar objects that are explicitly designed for human sensory enjoyment. Hays (2011) opines that environmental aesthetics has consisted of transference of sorts, where artistic paradigms are simply applied to the environment. The two most notable paradigms in this regard have been the object and landscape models of aesthetic appreciation. Hays further emphasizes that the object model entails abstracting a physical object from its environment and appreciating it as one might appreciate a sculpture, paying attention to the actual physical qualities of the object itself. These physical qualities entail the design of the school building which contributes to academic excellence in a university. School plants on the one hand, include physical resources of the school such as classrooms, lecture theatres, auditoriums, typing pools, administrative block, libraries, laboratories, workshops, gymnasium, assembly halls, special rooms like sickbay, staff quarters, students’ hostels, kitchen, cafeteria, lavatory, etc. She further opines that the availability, relevance and adequacy of school plants contribute to students’ achievement (Onye, 2014).

School plant or school facilities consists of the site, buildings, equipment and all facilities located in the school which enhance the teaching and learning activities and at the same time protects the physical well-being of the teachers and learners (Anyaogu, 2016).

Unfortunately, State Universities’ landscape across the Southeast wear generally distasteful look that shames aesthetic, ranging from dilapidated school blocks and facilities to the pathetic eyesore of students hanging on classroom windows and doors, including the culture of students sitting on the floor without desks in some cases, this is compounded by the situation of students being taught in classroom conditions that equate to death traps. These states of inadequacies have subsisted in the study area due to inadequate management of school plants. The subsistence is not unconnected with the insensitivity of the University authorities regarding the impact of school plant management on the environmental aesthetics of the school, which enhances teaching-learning situation and for the achievement of the laid down educational goals. Implicitly, achieving the object of Tertiary education in these institutions adequate plant management framework must be put in place to ensure strategic implementation of ideas and sustainable maintenance measures. Consequently, this study was carried out to understudy the situation with a view obtaining specific information for specific recommendation.

Objectives of the study

The main objective of the study is to analyze school plant management practices towards environmental aesthetics on state universities in South East geo-political zone of Nigeria. Specifically, the study:

i. Assessed the relationship between school plants procurement and environmental aesthetics of State Universities;
ii. Examined the relationship between the operation of school plants and environmental aesthetics of State Universities; and
iii. Investigated the relationship between school plant maintenance and environmental aesthetics of State Universities.

2. Methodology

Survey design was adopted for the study while a correlation method was used. The area of study was South East Geo-political Zone, Nigeria comprising Imo State, Abia State, Enugu State, Anambra State and Ebonyi State. Each of the states has a State and Federal Universities owned by the government.
which forms the focus of this study. South East, Nigeria has a population of 24.8 million and is surrounded across by other Geo-political zones. Educationally, the universities in this zone are grouped into three categories namely: the Federal Government Owned University, the State Government Owned University and Privately Owned University.

The population of the study was made up of 48 Deans and 288 Heads of Departments from 5 public State Universities comprising a total of 336 respondents from 5 state owned universities. In each state, the respondents were 106 for Abia State, 58 for Anambra State, 47 for Ebonyi State, 42 for Enugu State and 83 for Imo State (Source: Personnel Units of the Various Universities in the Department of Research and Statistics, 2018). A sample of three hundred and thirty-six (336) respondents was selected for this study. This sample represents 100 per cent of the entire population because of its handy size. Hence, the sampling technique is census sampling because of the researcher’s ability to cover cum reach out to the entire population.

Research questions were answered using Pearson (r) statistics thus indicating the coefficient of relationship between the variables in the study while the hypotheses were tested with t-test of significance of simple correlation statistics thus indicated the “significance” or “non-significance” of the extent of relationship existing between the variables. The hypotheses were tested at 0.05 level of significance. Decision Rule: The bases for the decision for the research questions’ conclusion were as follows: 0.00 = no relationship, 0.01 – 0.19 = very low relationship, 0.20 – 0.39 = low relationship, 0.40 – 0.59 = moderate relationship, 0.60 – 0.79 = high relationship, 0.80 – 0.99 = very high relationship and 1.00 = perfect relationship. The acceptance or rejection of null hypotheses was based on the calculated value of the t-test of correlation coefficient “r”. When the t-calculated is greater than the t-tabulated, the null hypothesis is rejected but if otherwise, the null hypothesis is accepted.

3. Results and Discussion

3.1. School plants procurement and environmental aesthetics of State Universities

Table 1 gave a summary of the coefficient of correlation between school plants procurement and environmental aesthetics of State Universities. The result revealed that the coefficient of correlation between school plants procurement and environmental aesthetics of State Universities is 0.35. This index shows that there is a low but positive relationship between school plants procurement and environmental aesthetics of State Universities. The low relationship could be attributed to the fact that the procurement of school plant is low and this must have reduced the beautification of State Universities in South East Geo-political Zone of Nigeria.

Table 1: Magnitude of Relationship, Direction of the coefficient of correlation between schools plants procurement and environmental aesthetics of State Universities at P<0.05

| n   | r   | Magnitude of Relationship | Direction |
|-----|-----|---------------------------|-----------|
| 336 | 0.35| Low Relationship          | Positive  |

Source: Field survey data (2018)

Table 2 gave a summary of the coefficient of correlation between school plants procurement and environmental aesthetics of State Universities. The degree of freedom is 334; the t-calculated value of 6.83 was seen to be greater than the t-tabulated value of 1.96. This led to the rejection of the null hypothesis and accepting the alternate hypothesis, thus concluding that the coefficient of correlation between school plants procurement and environmental aesthetics of State Universities in South East Geo-political Zone of Nigeria is significant. The result of the study is in consonance to the findings of Ugwuanyi (2013), which observed that on physical education equipment and supplies, only whistles are available in all the schools studied. Continuing, it was also observed that of all the physical education teaching facilities, only soccer fields are available in all the schools. Also Ememe, Onwuchekwa, and Onuigbo (2012) corroborated that physical facilities are inadequate and in some cases not available. However, the inadequacy level of these school plants are observed is attributed to the low level of procurement in State Universities in South East Geo-political zone which has adversely affected the environmental aesthetics of the institutions.
Table 2: Correlation between school plants procurement and environmental aesthetics of State Universities at P<0.05

| N   | r   | Df  | t_cal | t_tab | Decision |
|-----|-----|-----|-------|-------|----------|
| 336 | 0.35| 334 | 6.83  | 1.96  | Reject H0 |

Source: Field survey data (2018)

3.2. Operation of school plant and environmental aesthetics of State Universities

Table 3 gave a summary of the coefficient of correlation between operation of school plant and environmental aesthetics of State Universities. The result revealed that the coefficient of correlation between operation of school plant and environmental aesthetics of State Universities is 0.24. This index shows that there is a low but positive relationship between operation of school plant and environmental aesthetics of State Universities. The low relationship could be attributed to the fact that the operation of school plants is low and this invariably have affected the aesthetical beautification of State Universities in South East Geo-political Zone of Nigeria.

Table 3: Relationship between operation of school plant and environmental aesthetics of State Universities P<0.05

| n   | r   | Magnitude of Relationship | Direction |
|-----|-----|---------------------------|-----------|
| 336 | 0.24| Low Relationship           | Positive  |

Source: Field survey data (2018)

Table 4 gave a summary of the coefficient of correlation between operation of school plant and environmental aesthetics of State Universities. The degree of freedom is 334; the t-calculated value of 4.52 was seen to be greater than the t-tabulated value of 1.96. This led to the rejection of the null hypothesis and accepting the alternate hypothesis, thus concluding that the coefficient of correlation between operation of school plant and environmental aesthetics of State Universities in South East Geo-political Zone of Nigeria is significant. These findings are in line with the view of Akpan (2011) who opined that the personnel concerned with the repair and maintenance of school plants ought to periodically check on the structures and equipments to ascertain which of them needed attention. In buttressing the findings of this study, Adesina and Ogunsaju (2003) in their recognition of the need for operation of school plant for effective performance of educational programmes noted that for effective teaching and learning situations, school plant and educational goals ought to be viewed as being closely interwoven and interdependent. This implies that educational system cannot function without the school plants. Apart from protecting students from the sun, rain, heat and cold, the school buildings represent a learning environment which has a tremendous impact on the comfort, safety and performance of the students. It is only when these are assured that school plant become very important in the achievement of educational objectives. These assertions are in concordance with the views of Sidhu (2012) who asserted that “a school or a college is a vital and life giving environment to the extent that it brings into the life of its students an abiding love and appreciation for all that is best and most significant in national and human life”. Also, Mgbodile (2010) observes that the physical appearance (environmental aesthetics) and general condition of school plants are the striking basis upon which many parents and friends of any educational institutions may make their initial judgments about the quality of what goes on in the school.

Table 4: Correlation between operation of school plant and environmental aesthetics of State Universities at P<0.05

| n   | R   | Df  | t_cal | t_tab | Decision |
|-----|-----|-----|-------|-------|----------|
| 336 | 0.24| 334 | 4.52  | 1.96  | Reject H0 |

Source: Field survey data (2018)

3.3. School plant maintenance and environmental aesthetics of State Universities

Table 5 gave a summary of the coefficient of relationship between school plant maintenance and environmental aesthetics of State Universities. The result revealed that the coefficient of relationship between school plant maintenance and environmental aesthetics of State Universities is 0.29. This index
shows that there is a low but positive relationship between school plant maintenance and environmental aesthetics of State Universities. The low relationship could be attributed to the fact that the maintenance level of schools plants is low and this has adversely affected the environmental aesthetics of State Universities in South East Geo-political Zone of Nigeria.

| n   | r    | Magnitude of Relationship | Direction |
|-----|------|---------------------------|-----------|
| 336 | 0.29 | Low Relationship          | Positive  |

Table 5: Correlation between school plant maintenance and environmental aesthetics of State Universities P<0.05

![Table 5](http://example.com/table5.png)

Table 6 gave a summary of the coefficient of relationship between school plant maintenance and environmental aesthetics of State Universities. The degree of freedom is 334; the t-calculated value of 5.54 was seen to be greater than the t-tabulated value of 1.96. This led to the rejection of the null hypothesis and accepting the alternate hypothesis, thus concluding that there is a significant coefficient of relationship between school plant maintenance and environmental aesthetics of State Universities in South East Geo-political Zone of Nigeria. In tandem with these findings Asiyai (2012) stated that school facilities in the schools are generally in a state of disrepair. The findings further revealed that the maintenance carried out on school facilities were inadequate for majority of the facilities. The factors encouraging school facilities deprecation included excess pressure on available facilities and delayed maintenance amongst others. Nweneka (2016) revealed that school facilities in the secondary schools in Zaria Education Zone are generally in a state of dilapidated. Owoeye and Yara (2011) observed that well managed school buildings with aesthetic conditions, playground, lavatory, etc. usually contribute to achieving higher educational attainment by the students. Also, Kok, Mobach, and Omta (2011) revealed that maintenance of school facilities and the condition of the indoor environment (e.g., lighting, climate control, indoor air quality, and acoustic control) have a significant impact on comfort and perceived satisfaction of staff and students. In the operational phase, facilities in a building are subject to wear and tear when not properly maintained which erodes its performance overtime.

| n   | r    | df | t_cal | t_tab | Decision |
|-----|------|----|-------|-------|----------|
| 336 | 0.29 | 334| 5.54  | 1.96  | Reject H₀ |

Table 6: Correlation between school plant maintenance and environmental aesthetics of State Universities P<0.05

![Table 6](http://example.com/table6.png)

4. Conclusion and Recommendations

The study concludes that school plant management practices are very important for sound education of students towards the realization of educational goals and objectives. The results of this study have shown that State Universities have failed in procuring, maintaining, inspecting, and securing their school plants. Low level of procurement, maintenance, inspection, and security of school plant results to poor aesthetical beauty of the school environment. It is time the government and administrators of institutions address seriously the issue of school plant provision and management, and put into place adequate procurement and maintenance services that will impact more positively on the status quo and heighten the academic performance of students as well as teaching effectiveness. Hence, the study recommends the following:

i. Government should ensure that adequate funds are made available for the procurement of school plants.

ii. The maintenance of school plant should be responsibilities of all the recipients of the use of school plants.

iii. Inspection of school plants should be conducted periodically by external supervisors.

iv. Security personnel should be adequately recruited to ensure maximum safety of school plants.
References

Adesina, S. and S. Ogunsaju, 2003. Secondary Education in Nigeria. Ile-Ife University Press.

Akomolafe, C.O. and V.O. Adesua, 2016. The Impact of Physical Facilities on Students’ Level of Motivation and Academic Performance in Senior Secondary Schools in South West Nigeria. Asian Journal of Social Science. 7(4), 38-42.

Akpan, C.P., 2011. Fundamentals of School Business Management. Primechoire Konsult, Calabar.

Anyaogu, R.O., 2016. Educational management in a digital world: emerging perspectives. Owerri: Bon Publications.

Asiyai, R.I., 2012. Assessing School Facilities in Public Secondary Schools in Delta State, Nigeria. An International Multidisciplinary Journal, Ethiopia 6 (2), 192-205.

Ememe, O.N., G.U. Onwuchekwa, and N. Onuigbo, 2012. Availability and Utilization of Physical Facilities in Abia State Primary Schools. Journal of Resourcefulness and Distinction. 2(1), 214-222.

Hays, J.K., 2011. Aesthetic Appreciation of the Natural Environment: Scientific Knowledge & the Extension from Aesthetics to Ethics. Graduate Student Theses, Dissertations, & Professional Papers. 104.

Idoko, A.A., 2005. Understanding School Management. Makurdi: Ugo Printing Press.

Kok, H.B., M.P. Mobach, and S.W.F. Omta, 2011. The added value of facility management in the educational environment. Journal of Facilities Management, 9(4), 249-265.

Mgbodile, T.O., 2010. Educational administration and supervision. Ibadan: Heinemann Educational Books Nigeria. New York Journal of Science. 1(2), 10-12.

Nweneka, A.O., 2016. Assessment of availability and maintenance of school plant in secondary schools in Zaria Education Zone, Kaduna State, Nigeria. A thesis submitted to the Department of Education Foundations and Curriculum, Educational Administration and Planning Section, Ahmadu Bello University, Zaria in partial fulfillment of the requirement for the award of Master’s Degree in Educational Administration and Planning.

Onye, C.O., 2014. Human resource management practices of principals in Imo State. Journal of Nigerian Academy of Education (JONAED), 10(1):130-141.

Owoeye, J.S. and P.O. Yara, 2011. School Facilities and Academic Achievement of Secondary School Agricultural Science in Ekiti State, Nigeria. Asian Journal of Social Science. 7(7), 64-74.

Sidhu, S.I., 2012. Facilities Provision and Maintenance: Necessity for Effective Teaching and Learning in Technical Vocational Education. Journal of Research & Method in Education (IOSR-JRME). 3(1), 28-32.

Ugwuanyi, J.I., 2013. Availability, adequacy and utilization of physical education teaching resources in secondary schools in Enugu State. A Thesis Submitted to the Department of Health and Physical Education University of Nigeria, Nsukka.