

# **Effect of School Environmental Factors on Academic Development of Secondary School Students in Boripe Local Government Area of Osun State.**

**Sangodapo, A.**

*Department of Business Education,  
School of Vocational and Technical Education,  
Osun State Polytechnic, P.M.B. 301, Iree, Nigeria.  
+234 803 564 3104  
[akinbodesangodapo@gmail.com](mailto:akinbodesangodapo@gmail.com)*

**Ola, A. A.**

*Department of General Education,  
School of Vocational and Technical Education,  
Osun State Polytechnic, P.M.B. 301, Iree, Nigeria.*

## **Abstract**

*This study is designed to investigate the effect of school environmental factors, particularly the serenity of school environment and adequacy of school facilities on academic development of secondary school students in Boripe Local Government, Osun State. The study made use of descriptive survey research design. Structured questionnaire was used to collect primary data from the sample size of 41 respondents selected from ten selected secondary schools in Boripe Local Government. relevant works of authorities in related fields were reviewed. Data were presented in tabular form and analyzed, using mean rating and standard deviation as descriptive statistics. Chi square test statistics was used to test the hypotheses at 0.05 level of significance. The study found that the serenity of school environment influences academic development of secondary school students, and that adequate school facilities enhances academic development of secondary school student as wells. It was recommended that government should set standard for serenity of secondary school environment and enforce same to ensure compliance always. Further to this, upgrade, renovation and provision of adequate secondary school facilities should be ensured to enhance students' academic development at both state and federal level.*

**Keywords:** Academic Development, School Environment, School Facility, Secondary School Students, Serene Environment

## **1. Introduction**

Over the last two decades, there has been a growing appreciation that the school environment, the quality and character of school life nurture or undermine children's academic development, learning and academic

achievements. Anecdotal surveys confirm that a safe and supportive school environment, in which students have positive social relationships and are respected assist students to learn better (James 2018). Further to the above, a growing number of reports, studies and legislation emphasize the importance of positive school climate in reducing inequities in students' achievement, enhancing healthy development and promoting the skills, knowledge and dispositions that provide the foundation for 21<sup>st</sup> century school and life success (Carol 2019).

Cambell (2019) explained that school environment is the quality and attribute of school life. It is based on patterns of school life experiences and reflects norms, goals, values, inter personal relationships, teaching learning and leadership practice, and organizational structures. A sustainable, positive school environment fosters youth development and learning necessary for a productive and satisfying life in a democratic society. This environment includes norms, values and expectations that support people's feeling socially, emotionally and physically safe, which government, educators, consultants, students, families and other stakeholders work together to develop, live and contribute to a share school vision.

Educators model and nurture attitudes that emphasize the benefits and satisfaction gained from learning, therefore, they contribute to the operations of the school and the care of the physical environment. The terms 'school environment,' 'school culture' and 'school climate' have been used interchangeably, but sometimes, quite different ways in the educational literature (Kathleen 2010).

The school environment, includes facilities like classrooms, libraries, technical workshops, laboratories, teachers' quality, school management, teaching methods, peers, school's topography, environmental serenity, etc they are referred to as variables that affect or influence students' academic achievements. They remain an important area that should be evaluated and well managed to enhance students' academic performance.

The issues of poor academic performance of students in Nigeria has been much of concern to the government, parents, teachers and even the students themselves. The quality of education not only depend on the teachers as reflected in the performance of their duties, but also in the effective coordination of the school environment (Ajao 2008).

Teachers as well as students themselves are essential in teaching-learning process. The extent to which students learning could be enhanced depends on their location within the school compound, the structure of their classroom, availability of instructional facilities and accessories are observed to enhance their concentration and propel them to achieve academic desires. Kathleen (2010) opined that well planned school will gear up expected outcomes of education that will facilitate good social, political and economic emancipation, effective teaching and learning process and academic performance of the students.

Williams, et al. (2018) reported that safe and orderly classroom environment (aspect of instructional space), School facilities (accessories) are significantly related to students' academic performance in schools. Similarly, Glassman (2010) assert that a comfortable and caring environment among other treatments helped to contribute to students' academic performance. The physical characteristic of school has variety of effect on teachers, students, and the learning process. Poor lighting, noise, high levels of carbon-dioxide in classrooms and inconsistent temperatures makes teaching and learning difficult (Williams et al, 2018). Poor maintenance and ineffective ventilation system lead to poor health among students as well as teachers, which lead to poor performance and higher absentee rates (Frazier, 2020 and

Ostendorf, et al. 2008). These factors can adversely affect students' behavior and lead to higher levels of frustration among teachers, and poor learning attitude among students.

The above are the reasons why school plant needs to be well organized and planned for. School plant organization in the view of Atolagbe (2019) encompasses the prearrangement of the school location and how classroom blocks, dining hall, hostel blocks, technology workshop, kitchen, administrative block, science laboratories agricultural science block, arts studio, typing rooms, assembly hall, students' common room, conveniences, teachers and other staff offices, water supply, power supply, adequate supply of furniture and equipment are arranged for easy access and identification and obeying the smooth work flow in the secondary school with respect to topography and beautification of the environment. He found that proper school plant planning has a role to play in the ultimate academic development of students in secondary school.

Beyond the direct effects that poor environment has on students' ability to learn, it creates an uncomfortable and uninviting workplace for teachers, breeds frustrating behavior from students, creates a stressful set working conditions for teachers. Because stress and job dissatisfaction are common precursors to lowered teacher enthusiasm (Animasahun, & Aremo, 2019). Previous studies have investigated the relationship of poor school environment to include problems with students-teacher ratio, school location, school population, classroom ventilation, poor lighting, and inconsistent temperatures in the classroom, as significant to student's health problems, student's behavior and student achievement (Crandell, et al. 2020; Moore, 2018; Tanner, 2018). To complement these studies, the present research will examine some of the aforementioned areas of school environment as they affect students' performance in Nigeria schools.

In the opinion of the researcher, the poor performance of students in secondary school today is rampant due to the unavailable infrastructural facilities, teaching and learning materials, libraries, laboratories, classroom as well as qualified teachers to the extent that students are not capable to solve normal academic problems such as good communication skills, creativity, health fitness etc.

Statistics reveals that the percentage of Osun State public school students that bagged five credit pass including English and mathematics in 2018 WAEC was approximately 41% (WAEC, 2018). This in researchers' view is below average and not commendable considering the huge expenditure and investments of both parents and government on education. It is for this reasons that the researcher intends to investigate various environmental factors that affect students' academic performance such as school plant planning, school facilities, class size and school location in Boripe Local Government Area of Osun State being the area earlier specifically surveyed by the researchers.

### **1.1.Statement of the Problem**

Students' academic performance in Osun State has been one of the major areas of concern to all education stakeholders in the State. The generally observable submission of the masses is that the academic development of students is low, while government believed that the trend of students' academic development is increasing. The researchers observed that the increment of academic development as claimed by government is only increasing at a decreasing rate, and that most of the celebrated development are characterized by irregularities and malpractices especially from the parents in collaboration with some of the teachers. The reading and assimilation habits of students are gone unlike those days when school

environments are serene and constitute positive factors that motivate students to study and come out in flying colors. Inadequate funding of school is observed to have negative effect on environmental factors, therefore not propelling students to academic excellence, this is why most of the students inputted into our higher institutions are unfit for study, most of them later constitute academic nuisance to the system. They resulted to lobbying and buying their ways to have academic success they cannot defend after graduation. This may be one of the reasons why in Nigeria of today, most of our professionals fall below expectation in their performances. Hence, reason for this study.

### **1.2.Purpose of the study**

The purpose of this study is to examine the effect of environmental factors on academic performance of secondary school students in Boripe Local Government, Osun State. Specifically, the study seeks to:

- i. Examine the effect of serenity of school environments on secondary school students' academic development in Boripe LGA
- ii. Examine the effect of adequate school facilities on the academic development of students in the secondary school in Boripe LGA

### **1.3.Research Questions**

This study is guided by the following research questions:

- i. Is there any significant relationship between serenity of school environment and students' academic development of secondary school students in Boripe LGA?
- ii. Is there any significant relationship between adequate school facilities and students' development of secondary school students in Boripe LGA?

### **1.4.Research Hypotheses**

The study has the following hypotheses:

H<sub>01</sub>: There is no significant relationship between serenity of school environment and academic development of secondary school students in Boripe Local Government.

H<sub>02</sub>: There is no significant relationship between adequate school facilities and academic development of secondary school students in Boripe Local Government.

## **2. Methodology**

This study used descriptive survey research design and collected its data from both primary and secondary sources. Primary data was collected through questionnaire, this instrument was administered on 50 respondents (This comprised five best SSS 3 students from each of ten selected public secondary schools in Boripe Local Government) using stratified random sampling. The researcher was able to retrieve 41 questionnaires and this pegged the sample size at 41. The questionnaire contains 14 items. The instrument was structured based on 4-point rating scale as: Strongly Agreed (4), Agreed (3), Disagreed (2) and Strongly Disagreed (1). Face and content validity of instrument of data collection was done by two experts from Department of General Education, University of Ilorin, Nigeria. The reliability of the instrument was

determined, using statistical analysis of the data collected from the pilot study conducted at Akinorun Grammar School, in Ifelodun Local Government, Ikirun, Osun State. The correlation between data of test-retest was calculated using Pearson Product Moment Correlation (PPMC). The reliability index is 0.82. This shows that the instrument is reliable, according to Shuttleworth (2009), a test re-test correlation of +0.75 or greater is considered to indicate good reliability. Mean rating and standard deviation were used as descriptive statistics to analyze the primary data. Mean score of 3.50 and above is taken to be strongly agreed, between 2.50 and 3.49 is agreed, 2.0 to 2.49 is disagreed, while below 2.0 is strongly disagreed. Secondary data were sourced from the works of relevant authorities in related fields. Chi-Square Test Statistics was used to test the hypotheses at 0.05 level of significance. If the P value is less than the alpha significance of 0.05, the hypothesis is rejected, but if the P value is higher than the alpha significance of 0.05, the hypothesis is accepted.

### 3. Results

Research Question 1: Is there any significant relationship between school environment and students' academic development of secondary school students in Boriye LGA?

**Table 1:** School Environment and Student's Academic Development

Items	Mean	Std. Deviation	Decision
Your academic success will be influenced by good school environment	3.83	.381	Agree
You prefer beautiful environment now, compare to what you have before	3.78	.419	Agree
The way your school is organized and easy access to other facilities like library, workshop, laboratory, connivences, etc will motivate you to learn	3.61	.494	Agree
Better arrangement of school environment will enhance your learning process	3.59	.547	Agree
New school buildings and other facilities will propel your good grades	3.56	.550	Agree
A serene school environment will motivate you to use your skill and knowledge to perform well	3.44	.673	Agree
The serenity of your school environment will contributes to your academic development	3.37	.662	Agree
You like the location of your school compare to other schools	2.66	.480	Agree
<b>Average Mean and Std Deviation</b>	<b>3.48</b>	<b>.526</b>	<b>Agree</b>

Table 1 shows that majority of respondents agreed to all the questionnaire items on the Table. This is evident as all the mean scores are above the fixed decision value of 2.50. The standard deviation on the Table ranged from 0.381 to 0.673, this indicates that there is low variability in the respondents’ responses. The aggregate mean and standard deviation of 3.48 and 0.526 respectively are pointers to this fact. The indication of this is that serenity of school environment has influence on academic development of secondary school students in Boripe Local Government.

Research Question 2: Is there any significant relationship between adequate school facilities and students’ development of secondary school students in Boripe LGA?

**Table 2: Adequate School Facilities and Students’ Academic Development**

Items	Mean	Std. Deviation	Decision
You will love to study in your school garden (if any)	3.68	.471	Agree
The presence of recreational facilities in your school make you more committed to school	3.28	.452	Agree
Well-equipped laboratories will cater for your brilliant performance in practical	2.78	.690	Agree
Good looking classroom arrangement will draw you to class always	2.68	.471	Agree
Neat and satisfactory conveniences in your school will make you comfortable for studies	2.63	.488	Agree
You always like to study in your school library to enhance your performance	2.46	.505	Disagree
<b>Average Mean and Std Deviation</b>	<b>2.92</b>	<b>.513</b>	<b>Agree</b>

Table 2 shows that majority of respondents agreed to items one to five. This is obvious as the mean scores of items one to five are above the fixed decision value of 2.50. Majority of respondent disagreed to item six which its mean score of 2.46 is below the fixed decision value of 2.50. However, the standard deviation on the Table ranged from 0.452 to 0.690, this indicates that there is low disparity in the respondents’ responses from the mean. The aggregate mean and standard deviation of 2.92 and 0.513 respectively are pointers to this fact. This shows that adequate school facilities have influence on academic development of secondary school students of Boripe Local Government, except for the fact that the respondents lack library culture as a result of the fact that most schools under observation have no a befitting and well-equipped library for students.

3.1. Testing of Hypotheses

Ho<sub>1</sub>: There is no significant relationship between school environment and academic development of secondary school students in Boripe Local Government.

**Table 3:** Chi-Square Test Statistics for Hypothesis one.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.707 <sup>a</sup>	2	.035
Likelihood Ratio	9.280	2	.010
Linear-by-Linear Association	2.341	1	.126
N of Valid Cases	41		

From Table 3, the p-value 0.035 is less than the significance level of 0.05, as a result of this, null hypothesis is rejected. Therefore, there is significant relationship between school environment and academic development of secondary school students in Boripe Local Government. The study therefore, infers that school environment influence the academic development of secondary school students.

Ho<sub>2</sub>: There is no significant relationship between adequate school facilities and academic development of secondary school students in Boripe Local Government.

**Table 4:** Chi-Square Test Statistics for Hypothesis two.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.570 <sup>a</sup>	2	.037
Likelihood Ratio	6.089	2	.048
Linear-by-Linear Association	5.759	1	.016
N of Valid Cases	41		

From Table 4, the p-value of 0.037 is less than the significance level of 0.05, as a result of this, null hypothesis is rejected. Therefore, there is significant relationship between adequate school facilities and academic development of secondary school students in Boripe Local Government. The study therefore, infers that adequate school facilities enhance academic development of secondary school student

#### 4. Discussion

Findings on research question one shows that academic success of students of secondary schools will be influenced by good school environment as students compare the aesthetic value of schools. Further to these, the way school is organized and easy of access to facilities like library, workshop, laboratory, connivences, etc will motivate students to learn, and that good school environment will allow students to use their skills and knowledge to perform well in their endeavors. The serenity of school environment will contribute to students’ academic performance. Finding on hypothesis one also shows that serenity of school environment influences the academic development of secondary school students. All these findings are in line with the finding of Atolagbe (2019) who found that proper school plant planning which includes

how school facilities and supplies are arranged for easy access and obeying the smooth work flow in the secondary schools with respect to topography and beautification of the environment has a positive role to play in the ultimate academic development of students in secondary school.

Findings on research question two shows that students will love to study in school garden (if any), and that recreational facilities in school will make students more committed to the school activities. Moreover, a well-equipped laboratory will cater for students' success in practical, while good looking classroom arrangement, neat and satisfactory conveniences will draw students to school always. Conversely, students in secondary school do not usually study in library to enhance performance, this may be as a result of inadequacies surrounding provision of libraries in schools under observation. Finding on hypothesis two also shows that adequate school facilities enhance academic development of secondary school student. These findings are in line with the result of study conducted by Amanckwu and Olulube (2015), they observed a close relationship between school physical environment and academic performance of students, they were of the opinion that the education received by children bears direct relevance to the availability or lack, thereof of physical facilities and the overall atmosphere in which learning takes place.

## **5. Conclusion**

The purpose of this study is to investigate the effect of serenity of school environment on academic development of secondary school students. Specifically, the study specifically sought to examine the effect of serenity of school environments and adequacy of school facilities on secondary school students' academic development in Boriipe LGA. The study used descriptive survey research design, primary data were described using mean ratings and standard deviation and hypotheses were tested using chi-square. The study found that serenity of school environment influences the academic development of secondary school students, and that adequate school facilities enhance academic development of secondary school student. Therefore, school serenity and provision of adequate facilities will go a long way in contributing to secondary school students' academic development and enhance their scholastic achievement on the long-run.

## **6. Recommendation**

The following were recommended based on the findings of this work:

The serenity of school environment has been established by this study to have positive influence on students' academic development, therefore, it is recommended that government should establish a unique standard for serenity of secondary school for both private and public schools and ensure compliance as this will assist students' academic development.

Adequate facilities have been adjudged to enhance or contribute to students academic development, it is therefore recommended that government should ensure upgrade, renovation and provision of adequate facilities in secondary school so as to reinforce students' commitment to academic development.



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