INFLUENCE OF SCHOOL ENVIRONMENT AND MOTIVATION ON ACADEMIC PERFORMANCEAMONG SENIOR SECONDARY SCHOOL BIOLOGY STUDENTS IN KATSINA STATE, NIGERIA

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Abstract

This study examines the Influence of School Environment and Motivation on Academic Performance among Senior Secondary School Biology Students in Katsina State, Nigeria. The study is guided by four objectives; some of which are: to determine the influence of school buildings on academic performance in Biology subject among Senior Secondary School Students; and to determine the influence of class size on the academic performance in Biology among Senior Secondary School students, among other objectives. Four research questions and their corresponding null hypotheses are formulated and tested The study adopted the descriptive survey design. The population of the study comprise of 12,853 Senior Secondary Schools of SS II students across all the 25 Senior Secondary Schools within Katsina Zonal Education Quality Assurance, out of which 370 were selected as the sample of the study using simple random sampling technique and Research Advisors Guidelines. The data was collected using three adopted instruments: School Environment Students Questionnaire (SESQ) and Academic Performance Scale (APS). The data collected was analysed using mean, standard deviation and Pearson Product Moment Correlation design. The findings of the study reveal that school buildings have significant influence on academic performance in Biology among senior secondary school students in Katsina Zonal Education Quality Assurance, Katsina State; The study concludes that school environment has significant influence on academic performance in Biology among Senior Secondary School Students in Katsina Zonal Education Quality Assurance, Katsina State. Consequently, it is recommended, among others that, there is a need to make school environment very conducive for effective teaching and learning.

Keywords: School Environment; Physical Environment.

Introduction

In Nigeria, the issue of poor academic performance of students in Biology has been of much concern to the government, parents, teachers and students alike. The quality of education not only depends on the teachers as reflected in the performance of their duties, but also on the effective coordination of the school environment (Ajewole, 2014). A good environment provides students with physical, social, emotional and psychological factors for the mental readiness of the learner for new learning to take place. The term "environment", according to Akande (2015) can be seen as all the physical, social, emotional, cultural and psychological factors influencing the life and activities of people in a particular place. School environment can, therefore, be seen to include human and material resources, learning place where teaching and learning takes place. This shows that environment is not only the place in which the child lives (physically), but also the people with whom he/she

comes in contact with in the course of growing and interacting (socially). In this regard, environment is a place where the student functions: the home, the school, the peer group, the classroom, among others.

Environment thus refers to the system within which the living interact with the social, emotional, psychological and physical elements while the educational environment is a learning place where the learner learns and interacts with learning facilities in order to be socialized and face the challenges in the society. As the student grows and goes to school environment he makes contact with peer groups and the teachers, among others. In other words, the school environment means all external conditions affecting a person. It can include any and every influence with which an individual comes into contact. It includes the effect of training, influence of the student academic performance, playground climate, and anything else the individual is exposed to.

According to Farombi (2018), school environment may have negative influence on students' academic performance including in Biology subject, especially if such environment lacks good climate and instructional materials, library facilities, and students' motivation, dilapidated school buildings and over population of students in the classrooms. The importance to teaching and learning, and the provision of adequate instructional facilities for education, therefore, cannot be over-emphasized. Akande (2015) observes that learning can occur through interaction with one's environment. Environment here refers to the facilities that are available to facilitate students learning objectives which include books, audiovisual, computer and other equipment used in educational technology. The school environment also covers school buildings, the sizes of the classrooms, sitting positions and arrangements, availability of tables and chairs and chalkboards, shelves on which instruments for practicals are arranged and instructional materials as well as library facilities.

Mudassir, Norsuhaily, and Ado (2015), investigated the influence of school environment on academic performance of senior secondary students in Kuala Terrengganu, Malaysia. The research design for the study was descriptive survey research design and the population of the study consisted of 26,569 secondary school students from 32 secondary schools within Kuala Terengganu, Malaysia. Therefore, 377 respondents were selected from 4 different secondary schools within Kuala Terengganu. It means that 100 respondents were approximately taken from each secondary school to form the sample size. The instrument was a questionnaire tagged "The School Environment Questionnaire". The obtained data was analysed using Descriptive statistics and Inferential analysis. Findings of the research conclude that school environment significantly influence students' academic performance. However, the study was carried out in Malaysia while the present study will be carried out in Nigeria, precisely Katsina state in the north-western region. Subsequently, the study will serve as a guide to the present study as school environment is considered as one of the variables in this case. This study was carried out abroad, the present study was carried out in Nigeria. This study will serve as a guide to the present study since school environment is considered as one of the variables.

Adamu (2015) examined the impact of learning environment on the performance of students in Social Studies in junior secondary schools in Taraba State, Nigeria. A quasi-experimental research design, involving a pre-test, post-test and non-equivalent research design groups was used for the study. The population for the study was total of two hundred (200) public Junior Secondary Schools in Taraba State with twenty-five thousand three hundred (25,300) students. Purposive sampling technique was used and JSS III were selected from two of the schools and another two small sized classes from two other schools, given a total of 4 intact classes. Students from these classes formed the sample size for this study which stood at 200. The instrument used for the study was a Social Studies Achievement Test (SSAT) and a treatment package. Obtained data collected from the test administered to both experimental and control groups were subjected to both descriptive and parametric statistics. In this case mean and standard deviation was employed to explain the research questions while t-test was used to test the hypotheses.

The problem under study has to do with the strategic importance of environment and in educational settings. There is a prevalence of government and community as well as private schools which is resulting in different

and diverse learning environments, with some schools being greatly favoured in terms of provision of an ideal environment for learning far greater than others. Thus, it is very difficult, if not impossible, for even the government to equalize the school environments. Hence, environment varies from school to school even between government's supported schools. In other words, students school under different conditions, some favourable, others challenging.

It has been noted that a major part of our senior secondary school population is between the age ranges of 15 to 18 years, and this age range is an important human resource for laying foundations for national development. Hence, an ideal environment and a high level of motivation are very much necessary for effective learning among Biology students. The school environment provides the necessary stimulus for learning experiences. Students spend most of their time in school and school environment ultimately exerts influence on performance through curricular, teaching technique and human relationships. This researcher is thus motivated to examine the influence of environment and motivation in Biology subject specifically Katsina Zonal Quality Assurance in Katsina state Nigeria.

Objectives of the Study

The objectives of the study are:

1. To determine the influence of school building on academic performance in Biology subject among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.
2. Determine the influence of class size on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.
3. To examine the influence of library facilities on academic performance in Biology subject among Senior Secondary School students in Katsina Zonal Education Quality, Assurance, Katsina State.
4. To weigh the influence of instructional materials on academic performance in Biology subject among Senior Secondary School students in Katsina Zonal Education Quality, Assurance, Katsina State

Research Questions

The following Research questions were raised to guide the Study:

1. What is the influence of school buildings on academic performance in Biology subject among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State?
2. What is the influence of class size on academic performance in Biology subject among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State?
3. What is the influence of library facilities on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State?
4. What is the influence of instructional materials on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State?

Research Hypotheses

To answer questions 1-4 above, the following null hypotheses were formulated and tested at 0.01 level of significance:

Ho1. School buildings have no significant influence on academic performance in Biology subject among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State. **Ho2.** Class sizes have no significant influence on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.

Ho3. Library facilities have no significant influence on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State. **Ho4.** Instructional materials have no significant influence on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.

Methodology

This study employs descriptive survey research design. It is concerned with the collection and analyses of data for the purpose of describing, evaluating or comparing current or prevailing practices, evaluating or comparing current or prevailing practices, events or occurrences (Olufemi, 2018). This design is suitable for this study because it is always concerned with finding, describing and interpreting the data. It is not intended to examine new phenomenon but concerned with the relations or conditions that exists. The researcher collects primary data on certain characters among the randomly selected sampling from the target population who are located at various points in the study areas.

The population of this study consists of 12,853 senior secondary school SS II students across all the 25 Senior Secondary Schools within Katsina Zonal Education Quality Assurance. The sample size of this study consists of 370 respondents based on Research Advisors (2006) table for determining sample size from a given population. Simple random sampling technique was used in selecting 370 senior secondary school students from 25 different senior secondary schools within Katsina Zonal Education Quality Assurance. The main reason for choosing these schools is because of their geographical locations, population of the students and standard of the schools.

The researcher prepared three instruments namely: School Environment Students' Questionnaire (SESQ) and Academic Performance Scale (APS). The School Environment Students' Questionnaire (SESQ) is an adapted version of the questionnaire developed by Kelly (2010) and used for the collection of data for his doctoral theses in Australia. The SESQ has two sections A and B. Section A deals with the bio-data of the respondents while section B contains the forty (40) item statements arranged on a four point adapted Likert scale type of Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD) statements. The data on Students' academic performance were obtained from the special Qualifying Examination scores in Biology. The purpose of using Special Qualifying Examination scores in Biology was to determine the performance of the participating students in Biology.

The questionnaires were given to various experts in Educational Measurement and Evaluation and Psychology. This helped in the removal of ambiguities from the instruments; the correct versions were used to collect data for the study. In order to ascertain the reliability of the instruments, the data generated were used for the computation of reliability using Cronbach alpha and the reliability coefficients obtained were 0.76 respectively for SESQ.

The data collected was analysed using descriptive and inferential statistics. Mean, standard deviation and standard error statistics for the various components of the instruments were used to summarise the data. In order to test the stated hypotheses, the use of inferential statistics was necessary. In this regard, the researcher used Pearson Product Moment Correlation (r-value) statistics. This statistical method was used because the data collected was polytomous and continuous, and the sampling procedure was probabilistic. So the data satisfied the conditions for parametric statistics, hence it was employed. All the analyses were carried out with the help of SPSS v.23.0

Results

The analysis of the data collected was carried out and presented. The raw data collected was analysed using SPSS v.23. Both descriptive and inferential statistics were employed. In the descriptive statistics, mean, standard deviation and standard error statistics for the various components of the instrument were used to summarise the data as shown in the following table: **Table 1: Data Presentation**

Subscale	N	Mean	SD	Std. Error
School Building Influence	370	18.5946	5.43530	.28257
Classroom Size Influence	370	18.8216	5.64396	.29342

Library Facilities Influence	370	19.0108	5.39295	.28037
Instructional Materials Influence	370	19.0216	5.32566	.27687

Answering Research Questions

RQ1. What is the influence of school buildings on academic performance in Biology subject among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State?

To answer this research question, descriptive statistics of frequency count and mean were used. The data was analysed using SPSS v.23, and the result was presented in the table below:

Table 2: Students' perception regarding the influence of school building on their academic performance in Biology in Katsina Zonal Education Quality Assurance, Katsina State

S/N	Item	Freq.	Mean	Std. Deviation	Decision
1	Students' who feel safe, care for and supported have better academic performance in biology.	370	2.7811	1.0608	Agree
2	Students in schools with better school buildings have higher performance in biology.	370	2.5703	0.9609	Agree
3	Students' can perform better in biology if their school buildings is constructed.	370	2.5919	0.9477	Agree
4	School buildings can significantly improve the academic performance of students in biology.	370	2.6432	1.0187	Agree
	Poor ventilated exams hall contribute to poor academic performance of students in biology.	370	2.6838	1.0175	Agree
6	Students' can perform better in biology if their school buildings is not sites near pollution.	370	2.6703	1.0538	Agree
7	School building arouse interest by attracting attention of biology students.	370	2.6541	1.0118	Agree

From Table 4.2 it shows that 370 Biology students participated in the study. All the seven items in this section of the questionnaire received positive responses from the students. This indicates that majority of the Biology students have agreed that school buildings have influence on their academic performance in Katsina Zonal Education Quality Assurance, Katsina State.

RQ2. What is the influence of classroom size on academic performance in Biology subject among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State?

To answer this research question, descriptive statistics of frequency count and mean were used. The data was analysed using SPSS v.23, and the result was presented in the table below.

Table 3: Students' perception regarding the influence of classroom size on their academic performance in Biology in Katsina Zonal Education Quality Assurance, Katsina State

S/N	Item	Freq.	Mean	Std. Deviation	Decision
8	Class size can lead to improved teaching and learning in biology.	370	2.7000	1.0791	Agree
9	Small class size allows the teacher to give more individual attention to students'.	370	2.6054	1.1243	Agree
10	Overcrowded class room affects senior secondary school students' and their academic performance in biology.	370	2.6946	1.0650	Agree
11	Small class size does not have any influence on the academic performance in biology	370	2.6892	1.0583	Agree
12	Arrangement of desks in the class room influence students' to learn biology	370	2.7027	1.0634	Agree
13	Large class size allows the teacher to give more individual attention to students'	370	2.6865	1.0328	Agree
14	Conduciveness of class room influence students' to work hard in biology.	370	2.7432	1.0022	Agree

From Table 4.3 it shows that 370 Biology students participated in the study. All the seven items in this section of the questionnaire received positive responses from the students. This indicates that majority of the Biology students have agreed that classroom sizes have influence on their academic performance in Katsina Zonal Education Quality Assurance, Katsina State.

RQ3. What is the influence of library facilities on academic performance in Biology subject among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State?

To answer this research question, descriptive statistics of frequency count and mean were used. The data was analysed using SPSS v.23, and the result was presented in the table below:

Table 4: Students' perception regarding the influence of library facilities on their academic performance in Biology in Katsina Zonal Education Quality Assurance, Katsina State

S/N	Item	Freq.	Mean	Std. Deviation	Decision
15	Provision of seats for use in the library influence students' academic performance in biology.	370	2.6730	1.0060	Agree

16	Current materials/books for students in the library improve academic performance of students in biology.	370	2.6649	1.0521	Agree
17	Books for lending to students tend to have tremendous influence on students' academic performance in biology.	370	2.7351	1.0593	Agree
18	Physical presence of library assistants to help and guide contributes to academic performance of students in biology.	370	2.6676	1.0015	Agree
19	Library are arranged to prevent students' from both sun and rain.	370	2.7135	0.9872	Agree
20	Library are well-equipped for learning biology.	370	2.7405	1.0001	Agree
21	Working hours during which library is open for use tend to have tremendous influence on students' academic performance in biology.	370	2.8162	1.0611	Agree

From Table 4.4 it shows that 370 Biology students participated in the study. All the seven items in this section of the questionnaire received positive responses from the students. This indicates that majority of the Biology students have agreed that library facilities have influence on their academic performance in Katsina Zonal Education Quality Assurance, Katsina State.

RQ4. What is the influence of instructional materials on academic performance in Biology subject among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State?

To answer this research question, descriptive statistics of frequency count and mean were used. The data was analysed using SPSS v.23, and the result was presented in the table below:

Table 5: Students' perception regarding the influence of instructional materials on their academic performance in Biology in Katsina Zonal Education Quality Assurance, Katsina state

S/N	Item	Freq.	Mean	Std. Deviation	Decision
22	Adequate provision of instructional materials makes students' learn with ease thus bringing about good academic performance in biology.	370	2.5432	1.1754	Agree
23	Poor and inadequate instructional materials leads to poor academic performance of students in biology.	370	2.6216	1.0162	Agree
	Science kits when provided will aid teaching and learning				

24	programme and consequently improve academic performance of students in biology.	370	2.7054	0.9917	Agree
25	Pieces of chalk form one of the potential factors that contribute to academic performance of students in biology.	370	2.7432	1.0394	Agree
26	Chalk board, pictures, models and specimens influence students' academic performance in biology.	370	2.7432	0.9940	Agree
27	Teachers use appropriate charts and diagrams for the immediate illustration of biology lessons.	370	2.8054	0.9767	Agree
28	Good and relevant text books influence the academic performance of students in biology.	370	2.8595	0.9942	Agree

From Table 4.5 it shows that 370 Biology students participated in the study. All the seven items in this section of the questionnaire received positive responses from the students. This indicates that majority of the Biology students have agreed that instructional materials have influence on their academic performance in Katsina Zonal Education Quality Assurance, Katsina State.

Hypotheses Testing

In order to test the stated hypotheses, the use of inferential statistics was necessary. In this regard, the researcher used Pearson Product Moment Correlation (r-value) statistic. The use of these statistic was because the data collected was polytomous and continuous, and the sampling procedure was probabilistic. So, the data satisfied the conditions for parametric statistics, hence it was employed.

Ho1. School building has no significant influence on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.

To test this hypothesis, Pearson Product Moment Correlation (r-value) statistic was used. The data was processed using SPSS v.23, and the result was presented in the following table:

Table 6: Correlation of School Building Influence and Academic Performance in Biology

Variable	N	Mean	SD	r-value	p-value	Decision
School Building Influence	370	18.5946	5.43530			
				.894	.000	Significant
Biology Academic Performance	370	48.7243	14.68494			

Pearson (r) at 0.05 level of significant

In Table 4.2 above, the influence of school building on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State was *r = .894, P = .000.* Now since the p-value (*.000)* is less than the alpha value (.05), the null hypothesis is hereby rejected and the alternate hypothesis accepted. So, the researcher concluded that school building has significant influence on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.

Ho2. Classroom size has no significant influence on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.

To test this hypothesis, Pearson Product Moment Correlation (r-value) statistic was used. The data was processed using SPSS v.23, and the result was presented in the following table:

Table 7: Correlation of Classroom Size Influence and Academic Performance in Biology

Variable	N	Mean	SD	r-value	p-value	Decision
Class Size Influence	370	18.8216	5.64396	.864	.000	Significant
Biology Academic Performance	370	48.7243	14.68494			

Pearson (r) at 0.05 level of significant

In Table 4.3 above, the influence of classroom size on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State was *r = .864, P = .000.* Now since the p-value (*.000)* is less than the alpha value (.05), the null hypothesis is hereby rejected and the alternate hypothesis accepted. So, the researcher concluded that classroom size has significant influence on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.

Ho3. Library facilities have no significant influence on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.

To test this hypothesis, Pearson Product Moment Correlation (r-value) statistic was used. The data was processed using SPSS v.23, and the result was presented in the following table:

Table 8: Correlation of library facilities influence and academic performance in Biology

Variable	N	Mean	SD	r-value	p-value	Decision
Library Facilities Influence	370	19.0108	5.39295	.885	.000	Significant
Biology Academic Performance	370	48.7243	14.68494			

Pearson (r) at 0.05 level of significant

In Table 4.4 above, the influence of library facilities on academic performance in Biology among Secondary Senior School students in Katsina Zonal Education Quality Assurance, Katsina State was *r = .885, P = .000.* Now since the p-value (*.000)* is less than the alpha value (.05), the null hypothesis is hereby rejected and the alternate hypothesis accepted. So, the researcher concluded that library facilities have significant

influence on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.

Ho4. Instructional materials have no significant influence on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.

To test this hypothesis, Pearson Product Moment Correlation (r-value) statistic was used. The data was processed using SPSS v.23, and the result was presented in the following table:

Table 9: Correlation of Instructional Materials Influence and Academic Performance in Biology

Variable	N	Mean	SD	r-value	p-value	Decision
Instructional Materials Influence	370	19.0216	5.32566	.876	.000	Significant
Biology Academic Performance	370	48.7243	14.68494			

Pearson (r) at 0.05 level of significant

In Table 4.5 above, the influence of instructional materials on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State was *r = .876, P = .000.* Now since the p-value (*.000)* is less than the alpha value (.05), the null hypothesis is hereby rejected and the alternate hypothesis was accepted. So, the researcher concluded that instructional materials have significant influence on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.

Based on the analyses presented above, the following are the major findings of this study:

1. The study offers that school buildings have significant influence on academic performance in Biology, among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State *(r = .894, P = .000). This* due to the fact that the p-value (*.000)* is less than the alpha value (.05), the null hypothesis is hereby rejected and the alternate hypothesis was accepted. This implies that there is significant positive influence of school buildings on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.
2. It also argues that classroom size(s) has significant influence on academic performance in Biology, among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State *(r = .864, P = .000).This* due to the fact that the p-value (*.000)* is less than the alpha value (.05), the null hypothesis is hereby rejected and the alternate hypothesis accepted. This implies that there is significant positive influence of classroom size on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.
3. It also holds that library facilities have significant influence on academic performance in Biology, among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State *(r = .885, P = .000).This* due to the fact that the p-value (*.000)* is less than the alpha value (.05), the null hypothesis is hereby rejected and the alternate hypothesis accepted. This implies that there is significant positive influence of library facilities on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.
4. The study again reveals that instructional materials have significant influence on academic performance in Biology, among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State *(r = .876, P = .000).This* due to the fact that the p-value (*.000)* is less than the alpha value (.05), the null hypothesis is hereby rejected and the alternate hypothesis accepted. This implies that there is significant positive influence of instructional materials on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.

Discussion

As findings of this study argue, it is clear that school environment has significant influence on academic performance in Biology, among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State. This means that the physical aspect of school environment such as the school buildings, classroom sizes, library facilities, and instructional materials and so on, are found to have significant positive influence on academic performance in Biology, among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State.

Broadly speaking, this finding supports the earlier findings by other researchers (Eze, 2016; Isaac, Haastrup and Osalusi, 2016; Andisi, 2016; Joseph, 2015; Okafor, Maina, and Ohambele 2016; Mudassir, Norsuhaily, and Ado, 2015; Adamu, 2015). In all these studies, it was found that school environment greatly influenced students' academic performance, and that absence of, or lack of access to conducive learning environment, insufficient materials and lack of qualified teachers all negatively affect the academic achievements of senior school students.

Similarly, another finding offers that there is significant positive influence between school buildings and students' academic performance. Accordingly, as contended by Mgbodile (2014), healthy and attractive school buildings make for conducive learning and promote students pride in their schools and add to their interest to stay in the school. The school is the learning environment that sets the parameters of a student's learning experience. Depending on the environment, a school can either open or close doors that lead to academic performance in Biology.

Furthermore, finding this study reveals that there is significant positive influence between class size and students' academic performance. With regards to class size, Bascia (2013), maintains that smaller class size allows educators to focus more on the students in their teaching leading to better understanding and adjust their methods to diverse individual needs, whereas large class size makes monitoring of students' attendance very difficult thus encouraging students' absenteeism, and the quality of feedback to students become very low thus making the academic performance ineffective. Also, the small class size allows for individualized attention and this strengthens the cordial relationship between the teachers and learners.

It is, moreover, found out that there is significant positive influence between school library facilities and students' academic performance. This finding aligns with Eze's (2016), who investigated the influence of school environment on academic achievement of students of public secondary school in Enugu State. Eze's findings reveal that laboratory and library facilities are important factors affecting, positively, the academic achievement of students.

Furthermore, it is demonstrated that there is significant positive influence between Instructional materials and students' academic performance. This implies that instructional materials have significant influence on students' academic performance. This finding is in line with Joseph, Nwosu and Maina's (2015) who conducted a research on the Role of Motivation on the Academic Performance of Students in Economics in Sokoto Metropolis. Their findings reveal that students of schools with insufficient instructional materials performed significantly less than those taught with sufficient instructional materials.

Conclusion

In conclusion, this researcher argues that school environment has significant influence on academic performance in Biology among Senior Secondary School students in Katsina Zonal Education Quality Assurance, Katsina State. In other words, greater percentage of the student respondents agreed that School Environment has influence on their academic performance in Katsina Zonal Education Quality Assurance, Katsina State.

Recommendations

Finally, based on the findings of this study, the following are hereby recommended:

1. That school buildings have been found to bear significant influence on students' academic performance and for that, school environment should be made very conducive for teaching and learning, especially with regards to provision laboratories and other physical infrastructure that will aid the learning of Biology subject in particular.

2. That class size and qualified teachers bear positive influence on students' academic performance; hence classrooms should be made as small as possible for easy management and effective learning. This can be possible with construction of additional classrooms and employment of more qualified teachers for the Biology subject (and other subjects too).

3. Library facilities greatly influence students' academic performance; therefore, adequate provision of library facilities should be improved in all the schools, especially for the science subjects, and the Biology in particular. This will ease and enhance the teaching / learning process.

4. Instructional materials have valuable influence on academic performance of students; thus, more should be made available to enhance the teaching/learning Biology subject. Also, teachers should be encouraged to use instructional materials in the course of conducting Biology lessons and should again be encouraged to periodically update their knowledge and skills in the improvisation of instructional materials through seminars, workshops and conferences organized by government and professional bodies.

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