
RESOURCE AVAILABILITY AND THEIR UTILIZATION AS A CORRELATE OF STUDENTS' ACADEMIC ACHIEVEMENT IN PUBLIC SECONDARY SCHOOLS IN IKEDURU LOCAL GOVERNMENT AREA, IMO STATE, NIGERIA

BY

ANUDIKE, CHIOMA STELLA.

Department of Social Science Education,
Faculty of Education, Imo State University, Owerri

chiomy4theo2@gmail.com

ORCID: <https://orcid.org/0009-0001-1532-5962>

+234 813 516 6659

ABSTRACT

The study is focused on resources availability and their utilization in students' academic performance in public senior secondary schools in Ikeduru Local Government Area, Imo State, Nigeria. The design of the study was correlational research. It examined how the variables of resources' availability (laboratory use and library use) and their utilization influence students' academic Achievement in public senior secondary schools ascertained. Two (2) research questions were raised and two (2) hypotheses were postulated to guide the study. The population (1,052) consisted of all SS I-III teachers and the sample was 205 participants. A researcher-developed instrument entitled, "Resources' Availability and Utilization in Students' Academic Achievement Questionnaire (RAUSAAQ)" was used to generate data. Percentages and frequency counts were used to answer all the 2 research questions while the hypotheses were tested using Pearson Product Moment Correlation (PPMC) statistical tool at 0.05 level of significant. The result revealed that a significant relationship exists between the variables of resources' availability (laboratory use & library use) and students' academic Achievement in public senior secondary schools in Ikeduru Local Government Area of Imo State. It was therefore, concluded that a significant relationship exists between the sub-variables of resources availability (library use & laboratory use) in public senior secondary schools in Ikeduru Local Government Area of Imo State. It was based on these findings that it was recommended among others that Government

should continuously fund science and language laboratories and libraries for effective use as solid foundation towards the nation's attainment of quality scientific and linguistic requirements of the 21st Century.

Keywords: Resources Availability, Resources Utilization, Students' Academic Achievement

Introduction

Stakeholders in education seem to a large extent agree that the availability and effective utilization of educational resources hold the key to enhanced students' academic achievement especially in public senior secondary schools. Resources are things that could be used to help achieve an aim. In education therefore, resources include human, material physical and financial resources. According to Hornby (2010), most schools are still inadequately resourced. The source reporting from economically strong European background and environment stressed the need for availability and utilization of educational resources. This suffices to aver that, what then would one deduce from this in comparison with weak economies of West Africa countries like Nigerian? On the other hand, availability of resources in educational administration connotes something one can get, buy or find. In schools, the basic assumption is that brilliant examination results are possible in schools where resources are not provided but effectively utilized in teaching and learning. School resources or facilities are those consumables (chairs, chalk, light, water among others) and non-consumables (classroom, computers, buildings, libraries, laboratories among others) items that are necessary for attainment of school goal (Abei, 2011). This means that all those material things in school premises could be classified as school plants' facilities. Agi (2006), asserts that the purpose of school resources is to lay a sound foundation for educational structure in order to achieve educational goals. The source avers that whatever the result of studies on influence of facilities on academic performance or productivity, one thing that is clear is that availability of facilities will always enhance the academic environment towards better result. This means that the purpose of school plant is to enhance the comfort, safety of learners and teachers, thereby improving their performances. In this wise, the provision, adequacy, effective utilization and management of school plants are crucial for school effectiveness which depicts enhanced students' academic performance. The situation in public secondary schools in Ikeduru Local Government Area of Imo State has not improved over-time. For instance, virtually all the classrooms are overcrowded and defaced. Thus, the school plants need to be available, adequate and properly maintained and judiciously utilized. School plants facilities are critical variables that play influential role on secondary school administrative effectiveness, the outcome of which is enhanced students' academic performance. Bordens & Abbot (2012), stated that school plants start and end with the students' physical and emotional needs. The effectiveness of the school

therefore, largely depends on the administration (planning, organizing, directing, controlling, supervising, and maintenance) of school plants facilities. The quality and quantity of a school plant communicates/appeals to the stakeholder for patronage of the school.

In this study, two resources' availability and their utilization variables in public secondary schools in Ikeduru Local Government Area of Imo State would be investigated as the specific objectives of the study to determine their influence on students' academic achievement. These are Laboratory usage and Library usage. The laboratory is a veritable key in the effective teaching/learning of the sciences such as chemistry, physics and biology subjects as well as technical and vocational education among other subjects in both secondary and tertiary levels of education. Ekanem, Ushang & Nyong (2013), identified three major factors contributing to academic achievement in the school system prominent among them is the laboratory which provides equipment such as apparatus and other instructional materials useful for the sciences. The author stressed that the availability, relevance and adequacy of laboratories among other resources contribute to academic achievement. The bulk of celebrated scientists and laboratory scientists of past and present are beneficiaries of laboratory usage. Thus, the need for well-equipped laboratories in schools has been harped upon by Educational Administrators for the entrenchment of scientific revolution in Nigeria.

The laboratory is the store house of chemicals and other reagents/materials used for practical or demonstration of primary investigation in science subjects. Thus, the government of Nigeria as contained in the National Policy on Education, harped on the need for equitable science laboratories in secondary schools to foster science, technical and vocational education (FRN, 2013). It further states that science education shall emphasize the teaching/learning of science process and principles which would lead to fundamental and applied research in the sciences at all levels of education. To achieve this, government pledged to provide laboratories and workshops (FRN, 2013: P.11). Going by this, it is well understood that science device and technology growth by government have prompted for equitable and functional laboratory use in schools to complement library use. Library facility is also a major school plants facility. It is a key in learning given its nature for absolute silence consciousness. The need for a well-equipped library with current books and reading space for schools cannot be over-estimated. The importance of library in the teaching and learning process cannot be over emphasized. It is of paramount importance in the success of any student. Adewoye (2017), asserts that library is a challenge and exciting place, if properly utilized and consulted. Thus, it further stressed the importance of its spaciousness and accessibility to all the students in their respective schools for enhanced teaching/learning. To achieve this, government pledged to provide school libraries among others to attain the objectives of education (FRN, 2013). Students' ability to develop interest in library usage will as well encourage them think digital in line with improved

information demand of 21st century. Hence, the sub-variables of resources availability (laboratory use and library use) investigated in this study would determine the relationship each of them has with students' academic achievement in Ikeduru Local Government Area of Imo State. This is however, dependent upon their usage that is, the fact of something being used or how much these facility is used. It is a fact that before schools could pass approval to operate in an area, especially public schools, library, ICT, laboratory and other resources must be provided. The issue however, is their usages. In most public schools visited in Nigeria, it is noticed that where these facilities are available, most of them are of little or no use or gone out of use (stop being used) completely. Those in use at all will not have good use. In other words, the schools cannot make use of them in order to get an advantage in quality teaching and learning. The usefulness of these resources casts doubts about their utilization. In the area of the study, a rural area, most of these facilities have outlived their usefulness and as a result, need constant upgrading restocking in men and materials for 21st century quality public education. In addition, many teachers who constitute bulk of the human resources are almost useless at ICT soft/hard ware whereas students/pupils of this era would make any meaningful learning with expertise in ICTs. This is a sharp contrast that the resources at schools' disposal could have been better utilized for the attainment of educational goals and objectives.

Students' academic achievement/performance in public secondary schools on the other hand has always been a topic of interest to researchers in education because there is hardly any forum where issues concerning poor students' performance are not discussed (Emanuel, 2015). The authors stressed that students' academic achievement has been a long term debate among educators in an attempt to unravel the mystery behind academic excellence. This is due to the fact that academic success influences student's self-esteem, motivation and perseverance in either taking up employment or further pursuing his/her educational programme after the secondary education. There had been several efforts geared towards addressing students' academic performance around the world. For instance, in most developed countries, the government at different times had adopted different policies aimed at promoting students' academic performance. These include The Education for All Goals (EFA), Millennium Development Goals (MDGs) among others.

The Federal Government of Nigeria has also introduced programmes targeted at improving the quality and standard of education in the country in which Imo State government is a major beneficiary. Unfortunately, in spite of the effort of Imo State Government at promoting students' academic performance, in the State, the percentage of students who obtained 5 (five) credits including English Language and Mathematics was slightly above 50% in 2015 till this 2023 (West African Examinations Council, 2023). Same is applicable to National Examination Council (NECO) results. This shows there is need for concerted effort by stakeholders towards addressing the issue of students' academic performance. Similarly, the continuous complaint by stakeholders

in the education system about the quality of graduates of secondary school system in terms of their ability to fit into the society by meeting the expectations of employers of labour or the requirements for further education shows the need for the need research on students' academic performance in Imo State. Studies Emanuel (2015), had been conducted with the aim of identifying the factors that influenced students' academic performance in order to enhance the judicious use of resources devoted to the education system. These studies had reported a sharp decline in students' academic performance. The presumed factors that affected students' academic performance include poor quality of teachers, inadequate facilities, funding, lack of resources and materials among others. However, Adewoye (2017), reported a number of indicators such as lack of resources and materials, insufficient and overcrowded classrooms, poor plant facilities among others that adversely affect students' academic performance. Obviously, several factors had been identified as determinants of students' academic performance. Ekanem, Ushang & Nyong (2013), stated that the explanations for students' academic performance have been quite exhaustive yet controversy still exist among scholars as to what contribute singly or jointly to students' performance. One vital factor in this study is school plant facilities utilization towards enhancing students' academic performance in Lagos State. To determine the academic performance of a school, the numerical values of the students, grades in a subject were added together and divided by the total number of students who wrote the examination. Researches linked school plant indices to students' academic performance. From the literature reviewed, the researcher observed that most of the studies were on school plant as a concept and students' academic performance. Besides, from the foregoing, it is clear that there is still much work to be done, principally because there are conflicting findings on the determinants of students' academic performance in public secondary schools in public secondary schools in Ikeduru Local Government Area, Imo State.

This study, therefore, filled these gaps by investigating how school plants facilities (laboratory use, Library use, & information communication technology relate to students' academic performance in public secondary schools in Ikeduru Local Government Area, Imo State. Education is said to be the bedrock of any country's future development hence, the huge investment made by different levels of government in Nigeria aims at effective educational programme for its citizens. Unfortunately, much has not been achieved in the light of continued massive failure in external examinations including deficiencies in students' oral and moral expositions in the society. These are largely blamed on inferior teaching/learning as a result of availability of resources and their utilization in teaching and learning. It is against this background that this study examined resources' availability and their utilization in students' academic achievement in public senior secondary schools in Ikeduru Local Government Area, Imo State, Nigeria. Over the years, it has been observed that in spite of all efforts to address student's academic performance, it is still been noticed among students in institutions of learning at all

levels of the educational system. More so, poor academic performance in schools is persistently high and this might not be unconnected with the issue of provision, availability and accessibility of school plants facilities' factors which include laboratory use, Library use, and information communication technology use. There had been complaints also about the number of students who obtain five credits including English and mathematics in WASSCE. For example, the total percentage of students who obtained five credits including English and mathematics in 2015, 2016, 2017 and 2018 were 38.68%, 52.97%, 59.22% and 50.9% respectively (WAEC, 2022). Unless this trend is drastically reversed, the country may witness non-attainment of the goals of education.

Similarly, students who exhibit poor academic achievement e often experience not only financial problems but also social and emotional problems. In view of the foregoing, it appears several factors are responsible for student's academic performance. It seems school resources' utilization factors which include the Laboratory use, Library use, and ICT use relate to student's academic performance and have not been adequately provided despite their critical role in quality teaching/learning. The statement of the problem therefore, is how do resources' availability and their utilization influence students' academic achievement /performance in public senior secondary schools in Ikeduru Local Government Area of Imo State, Nigeria.

The general purpose of this study was to examine the relationships between school plants facilities and students' academic achievement in public secondary schools in Ikeduru Local Government Area, Imo State. Specifically, objectives are as follows:

1. To determine the effect of Laboratory use, on students' academic achievement in public secondary schools in Ikeduru Local Government Area, Imo State.
2. To examine the effect of Library use on students' academic achievement in public secondary schools in Ikeduru Local Government Area of Imo State.

Research Questions

The following research questions were raised in the study:

1. What is the effect of laboratory use on students' academic achievement in public secondary schools in Ikeduru Local Government Area of Imo State?
2. What is the effect of library use on students' academic achievement in public secondary schools in Ikeduru Local Government Area of Imo State?
- 3.

Null hypotheses

The following null hypotheses were formulated to guide the study:

1. There is no significant relationship between laboratory use and students' academic achievement in public secondary schools in Ikeduru Local Government Area of Imo State.
2. There is no significant relationship between library use and students' academic achievement in public secondary schools in Ikeduru Local Government Area of Imo State.

METHODOLOGY

The study used the correlational research design. A correlational research involves observing the values of two or more variables and determining which relationship exists between them (Bordens & Abbott, 2002). The adoption of correlational research design was justified as suitable for the study because it provided information on the relationship that exist between Resources' availability and their utilization in students' academic achievement in public secondary schools in Ikeduru Local Government Area, Imo State, Nigeria. The study is focused on resources availability and their utilization in students' academic performance in public senior secondary schools in Ikeduru Local Government Area, Imo State, Nigeria. The population (1,052) consisted of all SS I-III teachers and the sample was 205 participants. The simple random sampling technique was therefore, used to assure unbiased representation because each member of the population had equal chance of being selected through a ballot process. The sample size of the study is 205 respondents who were drawn from the population of 1,052 of the study consisting of all the students in 7 selected public senior secondary schools in Ikeduru Local Government Area of Imo State used for the study. This represents 19% of the research population used for the study. This sample size is suitable for generalizations and to draw meaningful conclusion. The justification of the sample lies on the assertion that 5% population of ten thousand respondents is normal in Educational and Social Sciences research (Nwanna, 2010). A researcher-developed instrument entitled, "Resources' Availability and Utilization in Students' Academic Achievement Questionnaire (RAUSAAQ)" was used to generate data. Percentages and frequency counts were used to answer all the 2 research questions while the hypotheses were tested using Pearson Product Moment Correlation (PPMC) statistical tool at 0.05 level of significant

Result

Table 1: Sample Frame of Respondents

S/N	Names of Senior Schools	No. of Students in SS 1-3	No. of Students Selected in percentage (63%)
1.	Amaimo comm. sec. School	126	30
2.	Owu Amakohia sec. School	86	15
3.	Ihodimeze comp. Sec. School	221	40
4.	Comm. Sec. Sch, Owalla Avuvu.	162	40
5	Umuoziri Sec.Tech. School	112	20
6	Uzoagba sec. school	250	45
7	Inyishi Comm. Sec. School	95	15
TOTAL		1,052	205

SEMB, OWERRI ZONE I (2023)

Hypothesis 1

There is no significant relationship between laboratory use and students' academic achievement in public Ikeduru Local Government Area of Imo State.

Table 7: Correlation between laboratory use and students' academic achievement in public senior secondary schools in Ikeduru Local Government Area of Imo State

	N	Mean	STD	Pearson	Sig.	Correlation (2-tailed)	Remark
Laboratory Use	96	18.47	1.98				
				0.863	0.000		Significant
Students' Academic Achievement	96	19.73	7.52				

r -calculated =0.735, df = 58; r -critical= 0.1946; r –calculated > r -critical; significant value (p) = 0.000<0.05.

Table 2. reveals that the r -calculated 0.863 implies a positive and significant relationship exists between laboratory use and students' academic achievement in public senior secondary schools in Ikeduru Local Government Area of Imo State. This is significant at 5% (p <0.005). Thus, the null hypothesis is therefore, rejected while the alternate which states that there is significant relationship between laboratory use and students' academic achievement in public senior secondary schools in Ikeduru Local Government Area of Imo State

Hypothesis 2

There is no significant relationship between library provision and students' academic achievement in public senior secondary schools in Ikeduru Local Government Area of Imo State.

Table 3: Correlation between library use and students' academic achievement in public senior secondary schools in Ikeduru Local Government Area of Imo State

	N	Mean	STD	Pearson	Sig.	Remark
				Correlation	(2-tailed)	
Library Use	96	16.71	1.98			
				0.863	0.000	Significant
Students' Academic Performance	96	19.11	7.52			

r -calculated =0.895, df = 58; r -critical= 0.1946; r –calculated > r -critical; significant value (p) = 0.000<0.05. Table 3. shows that the there is a positive and significant relationship between library use and students' academic achievement in public senior secondary schools in Ikeduru Local Government Area of Imo State (r =0.895, p <0.05). This is significant at 5% level. Thus, the alternate hypothesis is therefore, accepted and this means that there is significant relationship between library use and students' academic performance in public senior secondary schools in Ikeduru Local Government Area of Imo State.

Discussion of the Findings

The result of testing hypothesis one showed that there was a significant relationship between laboratory provision and students' academic performance in public senior secondary schools in Ikeduru Local Government Area of Imo State (Table 2). This could be as a result of emphasis on science education in Imo state. This means that science laboratories should not only be provided but also properly equipped in all public schools in Imo State for quality teaching/learning of science subjects in the schools. This results tallies with those of Adewoye, 2017 & Abei, 2011), which linked school plant factors to students' academic performance. However, it is clear that there is still much work to be done, principally, because there are conflicting findings on the determinants of students' academic performance in public senior secondary schools. Researchers; Hornby, (2010 & Agi (2006), in their separate studies on instructional materials found out that instructional facility such as laboratories, workshop equipment, typing pools, and library are very important if teachers must be able to manage their classes well. Consequently, the availability of these items may enable the students to perceive and observe their business environment, sustain their interest, collect and process data, draw or make difference from data collected, and be motivated towards learning.

The result of testing hypothesis two revealed that a significant relationship between library provision and students' academic performance in public senior secondary schools in (Table 3). This could be as a result of the effectiveness of "support-my-school initiative programme" of Imo State Government which targets enhancement of school facilities. This result tallies with that of Ekanem, Ushang & Nyong (2013), who found out that instructional facility such as libraries, laboratories, workshop equipment, and typing pools are very important if teachers must be able to manage their classes well. Consequently, the availability of these items may enable the students to Perceive and observe their business environment, sustain their interest, collect and process data, and draw or make difference from data collected. This finding also agrees with a study conducted by (Nwanna 2010), as earlier mentioned in the chapter two of this work on the relationship between library use and academic performance. The investigator discovered that library correlates with academic achievement, and that schools with well-equipped library normally maintain high academic performance. Whereas collection of books kept for reading in the library is related to academic performance, possession of personal textbooks as well, influence academic achievement as established by the findings of an empirical study carried out in rural Brazil by Fuller (2015).

Conclusion

The study has examined resources' availability and their utilization in students' academic achievement in public senior secondary schools in Ikeduru Local Government Area of Imo State.

The expectation of all concerned is that school managers should make judicious use of the scarce educational resources to promote efficiency and reduce wastage to the barest minimum. The level of performance in any school is intimately related to the availability and usability of school resources such as library and laboratory. Thus, the study, to a large extent, found out that a significant relationship exists between the sub-variables of resources availability (library, laboratory) and students' academic achievement in public senior secondary schools in Ikeduru Local Government Area of Imo State.

Recommendations

It is recommended based on the findings of the study that:

1. Government should continuously fund science and language laboratories for effective use as a solid foundation towards the nation's attainment of quality scientific and linguistic requirements of the 21st Century.
2. Government should continuously fund libraries to make them more relevant for improved study habit of students most of whom wonder away in school hours.

REFERENCES

- Abel, E. O. (2011). *Teachers' Characteristics and their Attitudes Towards Classroom Management*. Calabar: Nigerian Rapid Educational Publishers.
- Adegbesan, S.O. (2005). School plant and science students' academic performance in some selected secondary schools in Ijebu-Ode and Ijebu North-East of Ogun State. Unpublished M.Ed Dissertation, Onabisi Onabanjo University, Ago-Iwoye, Ogun State.
- Agi, C. W. (2006). *Understanding Guidance and Teaching Methods* Nigeria cul.ent Ltd.
- Bordens, K .S. & Abbot, B. B (2012). *Research design and methods: A process approach* (5th Edition), USA: MacGraw Hills Inc.
- Ekanem, R. S.; Ushang, A. E. & Nyong, E. E. (2013). Learning environment and pupils' academic performance: Implication for counselling. *Journal of the Nigerian Society for Educational psychologists*, 2 (4), 32-42.
- Emanuel, E. A. (2015) *Maintaining School Plants for National Transformation*, SSRG International Journal of Economics and Management Studies (SSRG-IJEMS) – volume2 issue 3rd March 2015.

- Futter, J. (2006). The class could help you learn: student participation increasing Better environment. *Education review* 58 (2) 182-193. of educational foundations, bayero University.
- Nwana, O. C. (2005). *Introduction to educational research*. Ibadan: Heinemann Educational Books (Nigeria).
- Suleman, Y. & Gbolahan, S. (2017) School Plant Planning: A Prerequisite for the Attainment of Educational Goals and Objectives. *Journal of Education and Practice*, 8 (18)
- West African Examinations Council (2021). Quarterly Report.