

## School Variables and English Studies Performance Among Students in Akwa Ibom State

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**Abstract** *The focus of this study was particularly to examine the extent to which the school variables (school location, school type and school proprietorship) relatively and collectively contribute to students' performance in English studies. The hypothesis formulated to guide the study based on the purpose of the study was that the independent and interactive effects of the selected school variables on JS 3 students' performance in English Studies are not statistically significant. This ex-post-facto research employed simple random sampling technique in selecting a total of 853 students from 20 secondary schools in Akwa Ibom State. The study made use of a researcher developed and standardized instrument: a 50-item English Studies Achievement Test (ESAT). The effect of school variables on students' performance in English studies was analysed using a 3 way factorial ANOVA. The result returned school proprietorship as the only school variable that exerted a significant effect on students' performance in English studies. School type had no significant effect in predicting students' performance in English studies but when interacting with school location and school proprietorship respectively its underlying effect was uncovered. It was recommended that teaching/learning conditions should be improved in public schools to enable students in these schools compete favourably with their counterparts in private schools whilst rural schools are given increased attention vis-à-vis infrastructural and human resource development to ensure improvement in the gains from teaching and learning.*

**Keywords:** *English studies; School location; School type; School proprietorship; School performance.*

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### 1. Introduction

Nigeria as a multi ethnic and multi lingual nation adopts English language as a lingua franca; it is the medium of communication in commerce and education. This has necessitated the enforcement of English Language Studies as a compulsory subject at the Junior and Senior secondary school levels of education. This has also informed the governments' decision to make a compulsory credit pass in this subject a prerequisite for admission into all programmes in tertiary institutions in the country.

The importance accorded this subject in the curricular reflects accurately the vital role it plays in contemporary society. Unfortunately an inspection of the Senior Secondary School Certificate Examination results in English Language from 2001-2004 shows a high rate of failure in this subject. For example, 67.43%, 52.79% and 41.82% of students who sat for these examination failed in 2001, 2003 and 2004 respectively (West African Examination Council, 2004). Various efforts have been made to unravel the possible reasons for this unwholesome trend; some of which include training and retaining of teachers, a conscious effort to revitalise the reading culture amongst school children and some definite research endeavours towards establishing possible reasons to the poor performances, this research is one of such efforts.

From literature it has been observed that investigation into the process of teaching and learning of English Language is limited. Thus this research study is poised to explore and possibly establish the effect of school variables namely school location, school type and school proprietorship on students' performance in English studies among Junior Secondary Schools in Akwa Ibom State, Nigeria.

#### 1.1. Purpose of study

This study was designed to determine the independent and interactive effect(s) of school variables namely - school location school type and school proprietorship, on Junior Secondary 3 students' achievement in English Studies.

#### 1.2. Research question

To achieve the purpose of the study, the research question formulated to guide the study was: What are the independent

and interactive effects of school variables (school location, school type and school proprietorship) on JS 3 students' performance in English Studies?

### 1.3. Research hypothesis

The hypothesis to be tested in this research stated in the null form is: The independent and interactive effects of school variables (school location, school type and school proprietorship) on JS 3 students' performance in English Studies are not statistically significant.

## 2. Review of Related Literature

According to Flanagan (2001) to deny children the opportunity to attend single-sex schools is to say that there is no value in specifically creating an environment to concentrate on the needs and interests of boys and girls separately. The purpose of single-sex schools must be to teach personal qualities to boys and girls that enhance their masculine and feminine natures and roles and re designed in different ways to provide the environment, guidance and training that is unique to each sex, and to concentrate on activities that are of particular interest to boys and girls. He Flanagan (2001) further posits that single-sex schools are for providing particular role model guidance for boys and girls to grow up to be men and women by concentrating on developing masculine and feminine qualities which are ultimately in service to each other and should be accompanied with mostly coed schools, as coed instruction and social development are most important and beneficial.

From a study conducted by Feingold (1988) to examined the relationship between gender and eight scales of cognitive ability using Differential Aptitude Test (DAT) administered on 193, 844 secondary students (grades 8-12) he that found girls scored higher on spelling, language, and clerical speed while boys scored higher on mechanical reasoning and space relations. No difference was found on verbal reasoning, abstract reasoning, or numerical ability.

Riordan (1990) conducted separate analyses for students by sex and race on academic and attitudinal outcomes. He discovered that among African American and Hispanic American students attending Catholic Secondary Schools, both males and females in single-sex schools scored higher on standardized cognitive tests than their peers in mixed-sex schools.

Harker and Nash (1997) used data gathered in a longitudinal study of more than 5,000 eighth-grade students in New Zealand to confirm statistically significant differences in favour of girls at single-sex schools. Yet after applying controls for ability levels and for social and ethnic backgrounds, differences disappeared. Studies that have found positive achievement outcomes attributable to the single-sex environment have all dealt with single-sex schools rather than classes.

Khandker, Lavy and Filmer (1994) were interested in surveying the school performance of male and female students from various regions in Morocco and the role played by demand – and supply – side factors in various educational outcomes.

Analysis of the data confirms the educational and cognitive achievements in Morocco are higher for wealthy and urban households than for poor and rural households urban children and rural boys consistently outperform rural children and rural girls respectively, in school attendance and attainment. The school attendance rate is 90 percent in urban areas as compared to 48 percent in rural areas and 64 percent for rural boys as compared to 32 percent for rural girls. Similarly, the completion rate for rural primary school pupils is 60 percent compared to 87 percent for urban pupils and it is 63 percent for rural boys as compared to 56 percent for rural girls. There were also sharp differences in cognitive achievement between male and female and between urban and rural children in Morocco. About 42.2% of these children were urban, 57.8% rural, 49.6% male and 50.4% female. Urban children outperformed their rural counterparts and boys outperformed girls.

### 2.1. School location and academic performance

Studies repeatedly show lower test performance for children from lower socioeconomic groups. In Nigeria; Ato (1986) in his study to find out students' attitude toward the easiness and difficulty of science observed that boys from urban schools. In another study, Jegede (1984) sought to find out the effects of non-cognitive correlates on secondary school students' achievement in physics. Based on a validated 50 item physics achievement test and three questionnaires for the students, teachers and school authorities, Jegede (1984) submitted the following findings: although there was no statistically significant difference between the performances of students from rural and urban schools, the mean score of

students from school in urban settlement was higher than those in rural schools. In the same vein, Daramola's (1983) results on Basic Physics Test reveals also that urban students obtained a mean score which was greater than that obtained by the non-urban students. The observed significant difference in science achievement seemed obvious because most schools in urban settlement have better qualified teachers and facilities reasoned Jegede (1984) and Daramola (1983).

### *2.2. School proprietorship and academic performance*

Choice is present when families sometimes at great financial sacrifice, decide to send their children to private schools instead of public schools. In many ways parents and students make choices that affect their education futures. This some parents do because of the superior organizational attributes of private schools (Elmore & Fuller, 1996). Goldhaber (1996) analyzed the result of 3 000 students using the NELS data in Mathematics and reading. After controlling for socio-economic status, he found no achievement advantage in private schools.

Private schools according to Lukbienski and Lubieniski (2005) are free from much bureaucracy that plagues public schools they are able to avoid political entanglement but rather focus on a core academic curriculum. Coleman and Hoffer (1987) found a notable private school effect - inherent advantages for schools in the private sector that resulted in a greater academic achievement even after controlling for differences in student population.

Figlio and Stone (1997) reported on student achievement for over 5,000 students in public, private religious and secular private schools. Accounting for selection effects, they found evidence of a slight but significant negative private school effect for Mathematics and science achievement in religious schools relative to public schools, except for benefit from religious schools relative to public schools except for urban minorities who were found to benefit from religious schools while secular private schools were shown to offer a substantive advantage in these subjects.

More recently Kim and Placier (2004) found significant differences in a sub sample of 144 private schools in the NELS data with non-Catholic schools outperforming Catholic schools in reading, but not in Mathematics. Lukbienski and Lubieniski (2005) observed that on using the 2000 NAEP dataset, they found that public schools were in fact performing as well as private schools on Mathematics achievement. Yet most recently, Lubieniski and Lubieniski (2005) analyzed Mathematics achievement data of National Assessment of Education Progress (NAEP) using 19,000 4<sup>th</sup> graders from 7485 schools and more than 153,000 8<sup>th</sup> graders from 6092 schools from NAEP using an advanced statistical tool (hierarchical linear modeling) to study the relationship between school controlling for demographic differences in the populations served by the school. Without controlling for student background difference private schools scored higher than public schools. After controlling for potential student and school-level confounding variable, like socioeconomic status, gender race, disability, English proficiency and school location. The overall study demonstrates that demographic differences between students in public and private schools more than account for the relatively high raw scores of private schools. Indeed after controlling for these differences the presumably advantageous private school effect disappeared and even reverses in most cases.

Obviously, these studies together present a rather blurred picture of the impact of different school sectors on student achievement. Indeed, findings from HSB, NELS and NAEP suggest that results are quite sensitive to methodological and sampling issues (Grogger and Neal, 2000).

## **3. Methodology**

### *3.1. Sample*

The study covered Akwa Ibom State in the Federal Republic of Nigeria. Akwa Ibom State is one of the 36 states in Nigeria. This state is located with the South-South geopolitical zone of Nigeria and it lies between latitudes 4°32' and 5°33' North of equator and longitudes 7°25' and 8°25' East of the Greenwich meridian, with a total area of 8412.00 square kilometers. The population of this study was made up of all the JS 3 students from both public and private secondary schools in Akwa Ibom State. There are a total of 438 secondary schools in Akwa Ibom State; this is made up of 240 public and 198 private schools with an approximate JS 3 student population of 29,000 for the 2005/2006 academic year. A total of 20 schools were sampled, from which 50 students were randomly sampled to make up a study sample of 1000 respondents. Out of the 1000 students, complete and correct data were obtained from 853 respondents of which, 407 were males and 446 were females representing a percentage of 47.7% and 52.3% respectively.

### 3.2. Instrument

The main instrument employed by the researcher to gather relevant information for this study; the instrument was the English Studies Achievement Test (ESAT). To ascertain the respondents' academic performance in English studies, a 60-item test for English studies was constructed and used. The researcher developed the instrument in accordance with the JS 3 syllabus. Considering the cognitive level of the students, items included in the instrument were based on knowledge, comprehension and application levels of Blooms taxonomy of educational objectives. The content areas tested on were: comprehension; antonyms; structure; synonyms; spellings and register. The test items were vetted and reviewed for face validity by Measurement and Evaluation experts and Secondary school teachers who are currently teaching English studies.

The English studies achievement test was pre-tested using 100 JS 3 students in four secondary schools within the study area. To make the final fifty (50)-item instrument, items with negative discrimination indices were discarded while those with low discrimination indices between 0.2 and 0.45 were restructured. The reliability coefficient for the English studies achievement test was 0.87 this was ascertained through the split-half method. The researcher with the assistance of English studies teachers in the sampled schools administered the instruments. These teachers were enlisted by the researcher as research assistance for the proper collection and collation of the relevant data from the respondents. Each instrument was administered within a day in each school so, data collection in each school lasted two days.

### 3.3. Design

This research is part of a larger work which adopted the causal comparative design because in the course of conducting this research, the researcher had no direct control over the changes in the variables under study, therefore, the inferences from the dependent variables made are only based on the natural variations in the independent variables as they affect or effect the dependent variables.

## 4. Presentation and Discussion of Results

This research used a total of 853 respondents out of which 407 representing 47.7% were males and 446 representing 52.3% were females.

**Table 1:** Group means and standard deviation of students' scores in English studies achievement test.

FACTOR	GROUP	N	PERCENTAGE	MEAN
School Location	1(Urban)	409	47.9	49.31
	2 (Rural)	444	52.1	39.30
School type	1(All Boys)	60	7.0	38.20
	2 (All Girls)	121	14.2	43.02
	3(Coedu)	672	78.8	44.82
School Proprietorship	1(Public)	505	59.2	35.52
	2(Private)	348	40.8	56.55

$\Sigma N = 853$  in all cases.

The result in Table 1 showed that 409 (47.9%) from school situated in urban areas scored a mean value of 49.31 to be superior to their 444 (52.1%) rural counterparts with the mean score of 39.30 on the ESAT. An inspection of the scores earned by the three groups classified on the basis of gender showed only slight disparity in scores of the 672 (78.8%) students from coeducational institutions had a mean score of 44.82 while the 121 (14.2%) from all girls' schools recorded a mean score of 43.02 and the 60 students from the all boys' school had 38.20 as their average score on the ESAT. The variable tagged school proprietorship showed a reasonable disparity in the margin of the scores earned by the 348 (40.8%) students from private school (56.55) while their peers from public schools had 35.52 as their average score on the ESAT. Results in Table will further establish the level of significance if any of the reported means.

To verify the only hypothesis of this study which states that - the independent and interactive effects of the school variables (school location, school type and school proprietorship) on JS 3 students' performance in English studies are not statistically significant, a 3-way factorial analysis of variance was employed. The independent and interactive effects of the independent variables (school location-categorized into urban and rural; school type-categorized as all boys, all

girls and coeducational and lastly school proprietorship made into public (government owned) and privately owned schools, on the dependent variable JS 3 students' performance in English studies was analyzed. The result of the 3-way ANOVA is presented in Table 2.

**Table 2:** Results of Factorial ANOVA of Effect of School Location, School Type and School Proprietorship on Students' Performance in English Studies

Source of variation	Sum of squares	df	Mean Squares	F	Sig. of F
Main effects	103493.71	10	10349.371	57.921	0.000
School Location	237.008	1	237.008	1.326	0.250
School type	225.014	2	112.507	0.630	0.533
School proprietorship	1402.929	1	1402.929	7.852	0.005
<b>2-way Interactions</b>					
SL by ST	1125.528	2	562.764	3.150	0.043
SL by SP	16.772	1	16.772	0.094	0.759
SP by ST	1268.813	2	634.407	3.550	0.029
<b>3-way Interactions</b>					
SP by ST by SL	12.255	1	12.255	0.069	0.793
Error	150450.02	842	178.682		
Total	1912752.0	853			

R Squared = 0.408

Table 2 showed the result of the effect of school location, school type and school proprietorship on students' performance in English studies. From the table it is shown that the F-ratio for type of school and school location are not statistically significant at 0.05 level. Thus the null hypothesis is retained for these two factors. On the same table, the F-ratio for school proprietorship is found to be significant at 0.05 alpha level. The researcher therefore rejects the null hypothesis for this factor and upholds the alternate hypothesis.

This result therefore implies that school location and type do not significantly affect students' performance in English but school proprietorship does significantly effects students' performance in the subject. This interpretation is further buttressed by the conspicuously higher mean score of 56.55 earned by students from privately owned schools as against a mean score of 35.52 for students in public schools. The variable were further subjected to a two-way interaction with each other .An underlying significant effect from the interaction school location by school type and school location by school proprietorship on students' performance in English studies were uncovered. A statistical display and a graphical representation of these significant interactions are shown in Table 3 and Fig. 1.

**Table 3:** Display of significant location by type interaction cell means on students' performance in English

School type	School location			
	1 (Urban)		2 (Rural)	
	n	$\bar{X}$	n	$\bar{X}$
Type 1 (All Boys)	60	38.40	-	-
Type 2 (All Girls)	66	38.52	55	48.44
Type 3 (Coed)	380	34.58	292	58.14

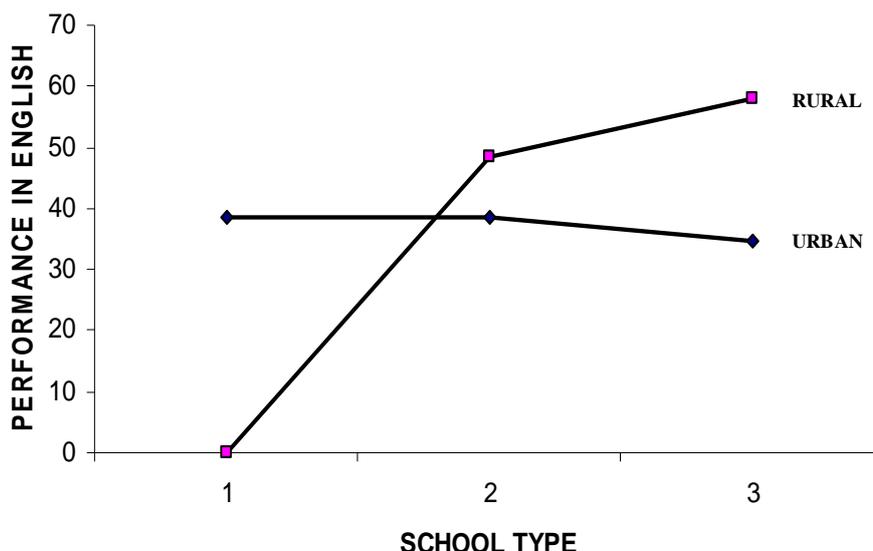


Fig. 1: A plot of school location by school type interaction cell means on student’s performance on English studies

School location and school type as single factors do not significantly affect students’ performance in English as shown by their insignificant F - ratio of 1.326 and 0.630 respectively (Table 2 refers). But entries on Table 3 as graphically represented in Fig. 1, has shown the nature of the effect of interaction of school type and school location on students’ performance in English. Although the result on Table 1 showed that urban students had a higher mean score of 49.31 as against 39.30 by rural students, when school location interacted with school type the urban advantage under the combined effect of school type was uncovered. Thus it can be interpreted that students in urban schools perform poorly when the variable of school type comes into play. This is shown by a conspicuously wide gap in the performance of students in coeducational schools from rural and urban settings as indicated by a 58.14 mean score for rural students and a 34.58 mean score from urban students (Table 3 refers). From the graph it is shown that students from all girls in both urban and rural areas performed almost at par while students from coeducational schools in the rural areas out performed those in urban settlements. Thus it was obvious that students in urban schools performed poorly when the variable of school type was introduced.

Table 4: Display of significant proprietorship by type interaction cell means on students’ performance in English studies

School proprietorship	School type					
	Type 1 (All Boys)		Type 2 (All Girls)		Type 3 (Mixed)	
	n	$\bar{X}$	n	$\bar{X}$	n	$\bar{X}$
Public	60	32.40	66	27.80	380	28.90
Private	-	-	55	44.50	292	56.70

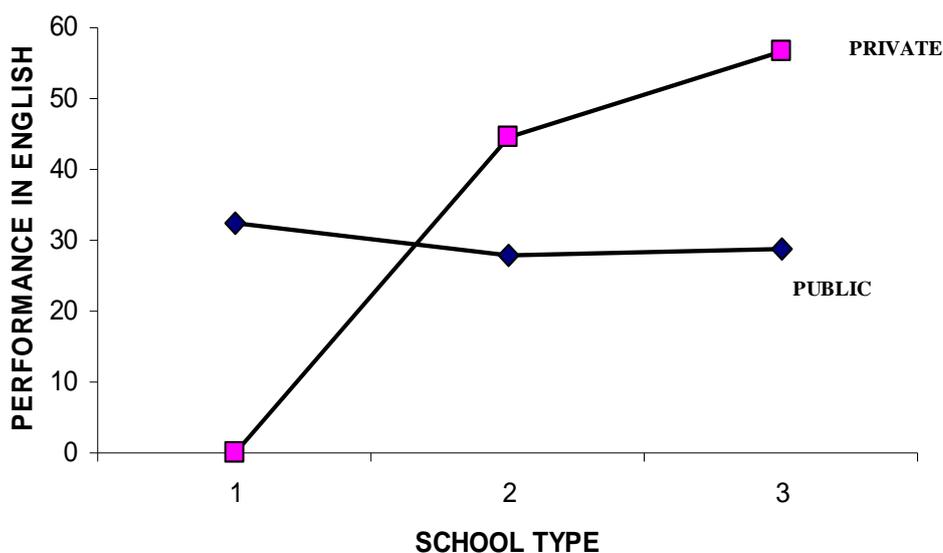


Fig. 2: A plot of school proprietorship by school type interaction cell means on student's performance on English studies

All though school type has no independent effect on students' performance on English studies, the result on Table 34 as graphically represented in Fig. 2 showed that students in private schools perform better than students in public schools irrespective of the school type they attend. The F-ratio of the 2 way interaction between school proprietorship and school type was found to be 3.550 was significant at  $P < 0.05$ . This is interpreted to mean that the performance in English studies by students from public schools tend to dwindle when considered along with the school ownership factor, while students from private schools improve in their performance irrespective of their type of school.

The result of the 3-way interaction of school location by school type by school proprietorship on students' performance in English studies was not statistically significant as shown in Table 2.

## 5. Discussion of Findings

The analysis of the effect of school variables on students' performance in English studies using a 3 way factorial ANOVA indicates that school proprietorship earned an F – ratio of 7.852 to top the significance table at 0.05 this result was supported by results of researches carried out by Kim and Placier(2004) and Lukbiensk and Lukbiensk (2005). Result displayed on Table 2 showed that school location does not affect performance in English studies significantly. This result confirms an earlier result reported by Jegede (1984) although it was at variance with the result submitted by Khandker et al (1994).

Although there was no main effect by school location, a further analysis involving the interplay of school type yielded a significant effect on English performance. On inspecting Table 1, the mean score of urban students was higher than that of rural students, but when the variable of school type was entered in the analysis, it was observed that students in rural schools performed better than those in urban schools. School location also significantly affected performance in English when it interacted with school proprietorship. School type of all the variables had the least effect on students' performance in English studies.

## 6. Conclusion

The research findings indicated that school proprietorship was the only school variable out of the three that exerted a significant effect on students' performance in English studies. School type on its own had no significant effect in predicting students' performance in English studies but when interacting with school location and school proprietorship respectively its underlying effect was uncovered.

## 7. Recommendations

Based on the findings of this study, the researcher recommends that the government, teachers, parents and all stakes

holders in the educational sector should put the necessary mechanism in place to improve.

1. Teaching/learning conditions should be improved in public schools to enable students in these schools compete favourably with their counterparts in private schools.
2. A greater attention be accorded educational institutions situated in the rural areas with the view of improving their human and material resources in order to boost the academic performance of students in these localities. School proprietorship was the only school variable out of the three that exerted a significant effect on students' performance in English studies.

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