



## **School-Related Factors as Predictors of Learning Outcome among Primary School Pupils in Southwest, Nigeria**

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### **Abstract**

*This study investigated the predictive effects of school related factors on learning outcome among pupils in selected primary schools where Federal Government in collaboration with state governments is carrying out an experimental study in Southwest geopolitical zone, Nigeria. The study adopted a descriptive research design of correlational type. A total number of five hundred (541) and forty-one pupils in Southwest geopolitical zone with ages ranged from  $7 \pm 1.5$  years with mean of 8.41 and 3.75 standard deviation were selected using stratified random sampling technique due to differences in the state of origin and level of monitoring of facilities provided and the research instrument employed was an adapted questionnaire consisting of demographic section, and measures of free tuition, free health care, free feeding, scholarship, availability of teachers, school friendly environment and achievement test on English language and mathematics was attached for learning outcome (using average score in Mathematics and English language tests) of the respondents with 0.76 and 0.73 reliability coefficients respectively. The study answered three research questions using statistical tools like Pearson Product Moment Correlation (PPMC) and Regression analysis. The findings revealed that there was joint contribution of the independent variables to learning outcome of primary school pupils in southwest geopolitical zone of Nigeria;  $R = 0.648, p < 0.05$ . It further revealed that 40.8% ( $\text{Adj } R^2 = 0.408, p < 0.05$ ) in the pupils' learning outcome was due to the prediction of the independent variables. There was significant contribution of all the independent variables. The most potent contributor to learning outcome was school fee and free health care while other variables had inverse contribution. Based on this, researcher conclude that government should strive to provide adequate educational opportunities to the children from inception to enable them have strong educational background and that at the end both the government and parents will reap the fruits of their labour..*

**Keywords:** Free tuition, Free Health Care, Free Feeding, Scholarship, Availability of Teachers

### **Introduction**



Learning outcome of pupils is not only a pointer to the effectiveness or otherwise of schools but a major determinant of the future of youths in particular and the nation in general. The medium through which the attainment of individuals and the nation's educational goals can be achieved is learning. Learning outcomes have become a phenomenon of interest to all and this account for the reason scholars have been working hard to militate against good academic performance (Aremu& Soka, 2002). This phenomenon has been variedly referred to in literature as academic achievement, or scholastic functioning. Learning achievement of learners has attracted attention of scholars, parents, policy makers and planners. Adeyemo (2004) opined that, the major goal of the school is to work towards attainment of academic excellence by students.

Education report cards are one tool for increasing accountability and drawing attention to results. Report cards monitor changes in key indicators of education performance, including student learning (through standardized tests), enrolments, graduation rates, government spending, student-teachers' ratios, and teacher qualifications. They show at a glance how a particular school, municipality, province, or country is performing in comparison to others with respect to different education indicators. By grading or ranking that performance in the same way that children are graded in schools, parents, policy makers and the general public can quickly identify both where performance is exemplary and where improvement is needed. Most importantly, these report cards provide those who use school-parents, employers and others-with key information on how their schools are doing in a simple and easy-to-understand format (Masters &Forster, 1999).

According to poverty and education overview by Smith and Gunn (1998), comparison between children in poor families and children in non-poor families using national datasets indicate that poor children are more likely to do worse on indices of learning achievement than non-poor children are. Poor children are twice as likely as non-poor children to have repeated a grade, to have been expelled or suspended from school, or to have dropped out of school. They are also 1.4% times as likely to be identified as having a learning disability in schools than their non-poor counterparts. One of the greatest challenges of students' learning achievement is free tuition (hike in tuition fees). The education system in Nigeria is guided by the broad National objectives which are articulated in the National Policy on Education. At its inception in 1999, in response to the challenges in the primary education sector, Universal Basic Education Programme was launched. Specifically, the Universal Basic Education Act (2004), and the Child Rights Act provide the legal framework for the implementation of the programme, which makes basic education not only free but also compulsory. In addition, as a signatory to the 2000 World Education Conference, and the 6 Dakar Goals towards achieving Education For All (EFA), government has also established a



National EFA Coordination Unit under the Federal Ministry of Education mandated to prepare a National Action Plan for the delivery of EFA in Nigeria.

Studies have been conducted on reasons people do not go to school; the people that are usually excluded and the impact of the introduction of user fees. A study conducted by Action Aid Published in 2003 showed that the reason why pupils do not go to school include costs of schooling, opportunity costs, illness and hunger, limited economic costs of education and how quality of schooling (Subrahmanian, 2003). The cost of schooling include the costs of books, stationery and basic equipment, uniforms admissions fees, registration and examination fees, contribution towards building and maintenance fund, construction fees, transportation, mid-day meals, parents.

Teachers Association (PTA) fees, sports fees, library fees and extra tuition fees. The opportunity cost for parents sending children to school is the family either in terms of income generating activities or in supporting the functioning of the household. Education is vital and compulsory for all according to the universal primary education policy that was enacted in 1976. For education to be beneficial to all, free health care should be provided by government at least, to assist children from the less privileged homes because, any damage to health will seriously obstruct learning achievement in learners. For instance, the academic achievement of America's youth is strongly linked with their health. Health related factors such as hunger, physical and emotional abuse, chronic illness can lead to poor learning achievement (Alexandeia, 2009). Health risk behaviour such as early sexual initiation, violence, unhealthy eating and physical inactivity are consistently linked to poor grades, test scores, and lower educational attainment (Spriggs, Halpern & Srab, Stein, 2008).

Nevertheless, not all learners are from rich or well-to-do homes. Some are victims of circumstances while some are from wretched homes where two or a single meal cannot be afforded but funny, this student could be academically sound but would lack financial help or, a child who does not feed well how on earth will he/she perform excellently in examinations? Therefore, free feeding should be seen as an option for adolescents from poor backgrounds so as to attain learning achievement. The limited lock down has one of the steepest socio-economic gradients in education among similar countries (OECD, 2001). Children from disadvantaged backgrounds do worse than those from advantaged backgrounds by a greater amount than elsewhere. For example, only about a quarter of students receiving free school meals gain five good GSCEs or equivalent, compared to over half of the overall population (DFES, 2006).

In Scotland, being a family poor enough to qualify for free school meals halves a young person's chance of getting to level five in the Scottish credit and qualifications framework (Scottish



Executive Publications, 2006). Socio-economic circumstances in childhood which result in low qualifications in adulthood help transmit poverty across generations. A primary cause of child poverty is a lack of opportunities among parents with low skills and low qualifications. Such parents are less likely to work, and if they do work, they are more likely to have low earnings. This task of balancing the economic demands of raising a family and the need to find time to devote to children is much harder for people in low-paid jobs with limited power to negotiate working arrangements. Where parents have to make a choice between low income and long hours, it is difficult to give children good life chances. Research has shown that someone who has grown up in poverty is disadvantaged well into adulthood. This is to large extent because people from disadvantaged homes are less likely to get good educational qualifications. There is also a separate correlation between poverty and success in mid-life. Controlling for qualifications, people in their 30s who experienced financial hardship when growing are less likely to be doing well in the labour market (Blanden & Gibbons, 2006).

Aside from free meal to children from the poor background, the issue of scholarship should be another factor that could motivate such adolescents. According to Washington's Special release (2012)- Education was historically considered a great equalizer in American society, capable of lifting less advantaged children and improving their chances for success as adults. But a body of recently published scholarship suggests that, the achievement gap between rich and poor children is widening, a development that threatens to dilute education's leveling effects. This release shows that children from low income earning homes could hardly buy their way to secure scholarship not to talk of dreaming of learning achievement in schools. It is a well known fact that children from affluent families tend to do better in school. Yet, the income divide has received far less attention from policy makers and governments officials than gaps in student accomplishment by race.

Teachers are, invariably role models whose behaviours are easily mimicked by students. What teachers like or dislike, appreciate and how they feel about their learning or studies could have a significant effect on their students. By extension, how teachers teach, how they behave and how they interact with students can be more paramount than what they teach. Availability of teachers and teaching process made Raimi (2002) and Adeyegbe (2005) to pose the question "Are smaller classes better than larger classes? This continues to be debated among teachers, administrators and parents as well as in the research community. Robinson (2001) concluded that research does not support the expectation that classes will of themselves result in greater academic gains for students. He observed that availability of teachers i.e. sufficient teachers will bring about positive learning achievement in students. Afolabi (2002) found significant relationship between availability of teachers on learning achievement of students.



School environment describes the school psychological environment or what others have referred to as "the school ethos," "school culture" or "the school environment" (Macher, 2009). The emphasis here is on the individual or student operating within a given educational context. In this instance, it is the student's perception of the school environment and his/her reaction to those perceptions that are of importance. The school psychological environment could be seen from two perspectives. These are the goal dimension and the relationship dimension. First, there is increasing evidence that the students' perception of achievement goal structure but within the classroom and the school in general are related to their self-perception use of effective learning strategies, effort and persistence (Ames, 2002; Midgley, Anderman & Hicks, 2005). The physical environment also affects the behaviour and development of people, of both children and adults who function within it, hence, school environment encompasses both the socio-psychological and physical dimensions, and both exercises have reciprocal effect on each other.

A substantial body of research shows that, for good or ill, a school's social environment has broad influence on students' learning and growth, including major aspects of their social emotional and ethical development. The social environment is shaped by many factors: the schools espoused goals and values; the principal's leadership style; the faculty's teaching and discipline methods; the policies regarding grading and tracking; the inclusion or exclusion of students and parents in the planning and decision-making processes. But perhaps, most important in determining the school environment is the quality of students' relationship with the school's staff. As John Dewey (1958) observed, "an effective school is realized to the degree in which individuals form a group".

There have been several reasons attached to effective learning achievement in adolescents and, different researchers have also investigated vagary of predictive factors which may make or mar learning achievement in adolescents but, there has been none of the research that were still able to combine three or four predictive factors to learning outcome in adolescent therefore, this study stands to fill the identified vacuum, by examining free tuition, free health care, free feeding, scholarship, availability of teachers, school friendly environment as predictors of learning outcome in Southwest geopolitical zone, Nigeria.

### **Purpose of the Study**

The general purpose of this study is to examine free tuition, free health care, free feeding, scholarship, availability of teachers, and school friendly environment as predictors of learning outcome among primary school pupils in Southwest, Nigeria. The study, therefore, generate the following specific objectives:



- 1) to examine the pattern of relationships that exist between the independent variables and the dependent variable among the selected pupils where these facilities are provided in Southwest, Nigeria.
- 2) to examine the composite contribution of independent variable to dependent variable among the selected pupils where these facilities are provided in Southwest, Nigeria.
- 3) to examine the relative contribution of the independent variables to dependent variable among the selected pupils where these facilities are provided in Southwest, Nigeria

### **Methodology**

The research design used in this study is descriptive research design of correlational type. This research design was used because the researcher would only establish relationship between independent and dependent variables and will not manipulate any variable in any form. The population for the study comprises all pupils where these facilities (free tuition, free health care, school feeding, and availability of teachers, school friendly environment and scholarship) are provided in Southwest, Nigeria. The sample for this study comprised five hundred and forty-one (541) pupils randomly drawn from primary schools in southwest geopolitical zone, Nigeria. The participants are male and females within the ages of 7 and 9; made up of different tribes in Nigeria, who are within primary 1 to primary 3 having different views of their school of learning.

The instruments used for the collection of data were some sets of adopted questionnaires:

**The School Fee Scale (SFS):** It was developed by Lankinsky (1999) used to assess the rate of increment of school fee and its consequences on the minority in Indonesia. It has 12 items but 7 were found relevant for this study. It was 0.68 reliability coefficient. The response format was 4-point scale of Strongly Agree (SA), Agree (A), Strongly Disagree (SD) and Disagree (D).

**The Free Healthcare and Feeding Scale (FHFS):** This was adopted from American subsidized health questionnaire which was administered on children in order to know those who needed free healthcare (who could not afford to pay). There are 13 items in all but 7 were found useful for this study. The items have internal validity and a reliability coefficient of 0.73.

**The Scholarship Scale (SC):** Developed by British Educational Support Department (2010) to assess British students who would need help and those who are outstanding in their disciplines for scholarship. It has 10 items but 7 were relevant for this study. It has reliability coefficient of 0.69- and 4-point response format of Strongly Agree (SA), Agree (A), Strongly Disagree (SD) and Disagree (D).

**The Teacher Distribution Scale (TDS):** This was developed by Madibar (2008) when she assessed the distribution of teachers and reasons students fail in Spain. It has 10 items but 8 were relevant for this study. It has 4 point response scale of Strongly Agree (SA), Agree (A), Strongly Disagree (SD) and Disagree (D) while a reliability coefficient of 0.665 was found.





**The School Friendly Environment Scale (SFES):** It was developed by Grant (2001) in his study of amenities that can facilitate learning in Nigeria. It has 15 items in all but 9 were relevant for this study. It has internal consistency and a reliability of 0.79 was found with 4 point response format of Strongly Agree (SA), Agree (A), Strongly Disagree (SD) and Disagree (D).

### Administration of Instrument

The researcher visited the schools where the factors considered in this study are being practiced and the researcher introduced himself to the headmaster of the affected schools consisted in the sample population so as to get permission for instrument administration. The instrument was administered with the assistance of trained research assistant on the purpose for which the research was meant. This ensured that adequate information was passed across to the pupils on its purpose while confidentiality was also assured.

### Methods of Data Analysis

The data collected from administration of the questionnaire were analyzed using percentage count, Pearson Product Moment Correlation (PPMC), and multiple regression analysis at  $\alpha = 0.05$  level of significance.

### Results

**Research Question 1:** What is the relationship pattern between the independent variables (free tuition, free health care, free feeding, scholarship, quality teachers, and school friendly environment) on the dependent variable (academic performance) among pupils in the demonstration schools?

**Table1:** Summary of Test of significant Correlations among Independent Variables and Learning Outcome

|                 |         |         |         |         |         |         |        |
|-----------------|---------|---------|---------|---------|---------|---------|--------|
| Free tuition    | 1.000   |         |         |         |         |         |        |
| Free health     | 0.003   | 1.000   |         |         |         |         |        |
| Free feeding    | 0.234** | 0.632** | 1.000   |         |         |         |        |
| Scholarship     | 0.341** | 0.305** | 0.321** | 1.000   |         |         |        |
| Available trts. | 0.006   | 0.012   | 0.059   | 0.225** | 1.000   |         |        |
| School friendly | 0.270   | 0.263** | 0.271** | 0.113*  | 0.711** | 1.000   |        |
| AcadPerform     | 0.308** | 0.229** | 0.593** | 0.133*  | 0.216** | 0.310** | 1.000  |
| Mean            | 20.928  | 20.392  | 23.748  | 25.460  | 33.400  | 25.625  | 22.502 |
| StdDev          | 5.5500  | 5.686   | 5.618   | 5.618   | 8.641   | 6.550   | 3.725  |

\*\* Correlation Significant at 0.01 \* Correlation Significant at 0.05



The results from Table1 showed that there was a positive and significant relationship between free tuition, free health, free feeding, scholarship, quality of teachers and school climate on pupil's learning outcome of the participants. Pupils academic performance had significant correlation with free tuition( $r = 0.308$ ,  $p < 0.05$ ), free health for students while in school ( $r = 0.229$ ,  $p < 0.05$ ), one free meal per day ( $r = 0.593$ ,  $p < 0.05$ ), scholarship( $r = 0.133$ ,  $p < 0.05$ ), quality of teachers ( $r = 0.216$ ,  $p < 0.05$ ), school friendly environment ( $r = 0.310$ ,  $p < 0.05$ ) of the respondents respectively.

**Research Question 2:** What is the composite contribution of the independent variable (free tuition, free health, free feeding, scholarship, availability of teachers and school climate) to the dependent variable (academic performance) of the participants?

**Table 2:** Summary of Regression Analysis of the combined prediction of students' Academic Performance by the two independent variables

| R                        | R Square       | Adjusted R Square | Std. Error of the Estimate |        |       |        |
|--------------------------|----------------|-------------------|----------------------------|--------|-------|--------|
| 0.648                    | 0.420          | 0.408             | 5.04182                    |        |       |        |
| SUMMARY REGRESSION ANOVA |                |                   |                            |        |       |        |
|                          | Sum of Squares | Df                | Mean Square                | F      | P     | Remark |
| Regression               | 4488.268       | 6                 | 748.045                    | 64.403 | 0.000 | sig    |
| Residual                 | 6202.456       | 534               | 11.615                     |        |       |        |
| Total                    | 10690.724      | 540               |                            |        |       |        |

Table 2 showed that the prediction of all the six independent variables to the dependent variable. That is, students' academic performance correlated positively with the six predictor variables. The table also shows a coefficient of multiple correlations (R) of 0.648 and a multiple adjusted R square of 0.408. This means that 40.8% of the variance in the pupils' academic performance is accounted for by all the six predictor variables, when taken together. The joint contribution of the independent variables to the dependent variable was significant ( $F = 64.403$ ;  $df = 6, 534$ ;  $p < 0.05$ ) and that other variables not included in this model may have accounted for the remaining variance.

**Research Question 3:** What is the relative contribution of each of the independent variables on students' academic performance among participants?





**Table 3:** Relative contribution of the independent variable to the dependent variable (Test of significance of the Regression coefficients)

| Model         | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|---------------|-----------------------------|------------|---------------------------|--------|------|
|               | B                           | Std. Error | Beta                      |        |      |
| (Constant)    | 6.858                       | 2.116      |                           | 3.240  | .001 |
| Free tuition  | .221                        | .035       | .205                      | 3.679  | .000 |
| healthcare    | .360                        | .076       | .303                      | 4.742  | .000 |
| Free feeding  | .177                        | .074       | .153                      | 2.385  | .018 |
| Avail teaches | .164                        | .083       | .140                      | 1.967  | .050 |
| schclimate    | .125                        | .053       | .165                      | 2.352  | .019 |
| schorlarship  | .626                        | .062       | .537                      | 10.052 | .000 |

Table.3 reveals the relative contribution of the six independent variables to the dependent variable, expressed as beta weights. The positive value of the effects of free tuition fees, free health, free feeding, quality of teacher, scholarship and school climate implies that the students' academic performance is actually determined by positive reinforcement of these six variables. Using the standardized regression coefficient to determine the relative contributions of the independent variables to the explanation of the dependent variables scholarship made the most significant relative contribution to the prediction of academic performance ( $\beta = 0.537$ ,  $t=10.052$ ,  $p<0.05$ ), followed by free health care ( $\beta = 0.303$ ,  $t = 4.742$ ,  $p< 0.05$ ), followed by free tuition ( $\beta = 0.215$ ,  $t = 3.679$ ,  $p<0.05$ ), followed by free meal ( $\beta = 0.177$ ,  $t = 2.385$ ,  $p<0.05$ ) followed by quality of teacher ( $\beta = 0.164$ ,  $t = 1.967$ ,  $p = 0.05$ ) and followed by school climate ( $\beta = 0.125$ ,  $t= 2.352$ ,  $p < 0.05$ ) in that order.

### Discussion of Findings

In response to the research question on the relationship between the independent variables (free tuition, free health care, free feeding, scholarship, quality teachers and school friendly environment) on the dependent variable (academic performance) among primary school pupils the result from the study revealed that there was a positive and significant relationship between free health care, free feeding, free tuition fees, availability of teachers and school friendly environment on students' academic performance of the participants.



This is in line with the work of Coursera and Fazackerly (2012) when they found out that higher education institutions in Arizona had partnered with thirty-three universities offering more than 200 courses to over two million students in 196 countries in which courses offered have attracted enrolments of up to 160,000 students for free. The correlation of free health is also in line with Rothbart and Bates (2006) when they argued that, investigation often use the term emotionality to refer to temperamental or dispositional emotion related characteristics, which manifest in individual differences in people's experience or expression of emotion. This implies that free health provision would bring about goal feelings for study while, the lack of it for those who could not afford it and are willing to study; will bring about maladjusted behaviour such as temperaments.

In response to the research question above, the result of the study revealed that, student's academic performance correlated positively with the six predictor variables (free tuition, free health care, free feeding, scholarship, availability of teachers and school friendly environment). The predictor variables were only able to account for 40.8 percent of the difference in the students' academic performances with an adjusted R square of 0.408. This falls in line with the work of Smith and Stone (2006) when they revealed in their research that free school meal are available to those who are eligible, from lower socioeconomic backgrounds in all countries although in Scotland free school meals are available at the discretion of individual education departments of local authorities and in Spain, some children, but not many are entitled to free school meals while Quartz (2008) focused on the issue of equity and argued that, shortages fall disproportionately on schools in high-minority and higher poverty communities and contributes to unequal educational and ultimately, occupational outcomes., this implies that all predictor variables had composite relationship with students' academic performances.

In response to the question on the relative effect of each of the independent variables on students academic performance among the participants, the result revealed that, the positive value of the effects of free tuition fees, free health care, free feeding, availability of teachers and school friendly environment implies that, the students' academic performance is actually determined by positive reinforcement of the predictor variables. It was revealed that free tuition fee is the most potent contributor with beta weight of 0.626 followed by free health care with beta weight of 0.360 while others contributed less, all at  $p < 0.05$ . This is in accordance with the work of Cauchon and Dennis (2004) when they stated that, most students who paid for tuition and other education cost don't have enough savings to pay in full while they are in school in that, some students must work and/or borrow money to afford an education. They concluded by saying, it is often the case that, the lower the cost of the school, the more likely a student is to attend. Therefore, it implies that,



institutional cost is a major determinant of whether a student will go to school or will become an apprentice in a local shop.

### **Conclusion**

The research work has established that there is positive significant relationship between free health care, free tuition, free feeding, scholarship, availability of teachers and school friendly environment and learning outcome of primary school pupils in southwest, Nigeria. It has also revealed that, there exists a positive correlation between free tuition fee and free health care on students' academic performance while less significant relationship occurred between free meal, availability of teacher, scholarship and school friendly environment on students' academic performance. Nonetheless, there is need for replication and refinement of this work in the future.

### **Recommendations**

In order to improve the learning outcome of primary school pupils in southwest, Nigeria, the following suggestions are made as possible strategies based on the outcome of the study:

1. Pupils who could not afford a paid education should strive hard to have education as; they are not suffering but working hard to have a future. This is because; government may fail in providing free education to all level but, when it is showed for and the fruit ripens; then, the suffering of yesterday shall be overcome with today's job opportunity for greatness.
2. Parents should not encourage idleness and the idea of not going to school from their wards because; when one is not born with a silver spoon he should not die in such situation but, strive to have education so as to be liberated from ignorance and join the race of those born with silver spoons so that, his generation who have suffered (i.e. parents) can be glad that they have a redeemer.
3. Policy makers should enact policies that will favour effective and efficient discharge of duties by teachers and not by creating a big gap between policy planners and those who will implement it. This big gap has brought Nigeria education backward in that, policies that are planned in Abuja may not work in several states in Nigeria, and when this happens, teachers will sit and watch while the students will be at the receiving end thereby, hampering their academic performances.
4. Federal Government should play their role efficiently by providing infrastructural facilities, sending subventions to schools for proper upkeep of schools and replacement of depreciated items so that, even when parents are to pay for their wards they will vividly see why they had to pay and, not the current situation where students will have to sit on the ground or on broken and harmless wooden chairs for teaching and learning processes.



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