



THE RELATIONSHIP BETWEEN SCHOOL SIZE AND STUDENTS ACADEMIC ACHIVEMENT OF SENIOR SECODARY SCHOOL STUDENTS IN BAMA TOWNSHIP AFTER THE INSURGENCY

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Abstract: *The Study find-out the relationship between school size and students' academic achievement in senior secondary schools in Bama Township. One objective was raised to guide the study and one null hypotheses were tested at 0.05 level of significant, to find-out the relationship between school size and students' academic achievement in National Examination Council (NECO) result from 2022-2023 Academic sessions. Correlation and expo facto design were adopted for the study. The population of the study comprised of two Public Senior Secondary Schools in Bama town. Pro-foma questionnaire was used as an instrument for data collection in selecting the students NECO results in five science based subjects. The study revealed that there is significant relationship between school size and students' academic achievement in senior secondary schools in Bama town. Based on the findings, it is recommended that, the Borno State Government should improve the public school by providing adequate educational facilities and resources.*

Keyword: *Relationship, School Size, Academic Achievement*

INTRODUCTION

Education is viewed as critical investment, not only to the individual but also to the society. The Nigerian Policy on Education (NPE) goals placed education at the centre stage of the country human and economic development strategy. Thus it stated that, "education is an investment for national development, the formulation of ideas, there integration for national development, interaction of person in all aspects of education" (FGN,2014:4.). Education suggest the intentional bringing about of a desirable state of mind in a morally unobjectionable manner, (Peters, 1966). Education also involves essentially a process which intentionally transmits what is valuable in an intelligent and voluntary manner, and which creates in the learner the desire to achieve, (Archambault,1972).

The report by the World Bank (2005) stated that education is a fundamental factor in Socio-economic and political development, as it is inculcating skills and knowledge in students, preparing them to take up role in national development. Education has been identified as an instrument par excellence for effecting national development as contained in the Federal Government of Nigeria (FGN,2014) National Policy of Education. Education in Nigeria is an instrument for social change and national development through technical and agricultural education that lead to the high public expectation (Yusuf, 2001).

The school size which is one of the important factors in school setting has been observed to show a trend of stability in the senior secondary school system in Borno State. The student's displacement in their communities as a result of insurgency has affected the population of the student in most public school and private school as well. Observation shows that some schools cannot manage the student's population properly. Overcrowded classroom are noticed in most public school in the state and also poor classroom management as a result of overpopulation cannot produce satisfactory performance on the site of the students. On the other hand, the private school size observed in the state is encouragingly satisfactory.

This size not allow the even distribution of education resource and effective classroom management which may invariably result in high students' performance. And also size of the school plays a vital role in the actualization of educational goals and the emotional need of both the staff and the students. The 4th edition of the National Policy on Education of the Federal Government of Nigeria was associated by some policy innovation and changes, it stated that, secondary school teachers'/students ratio shall be 1:40 (FGN, 2014:2,17). Over population in the school affect student learning and administration competences of the principal officers. This may be the case with the Borno State senior secondary schools except steps are taken in the right direction to correct the trend.

United Nation International Children Education Fund (UNICEF), Nigeria, (2005) reported that, increase enrolment rate creates challenges ensuring quality education and satisfactory learning achievement and resources are spreads more thinly across a growing number of students. It is not rare to see cases of 100 students per teacher setting under trees outside the school building because of lack of classroom. Further report by U.S Department of Education Statistic, (2013) on Africa stated that over the last decade, Nigeria exponential growth in population has put immense pressure on the country's resources and already over stretched public service and infrastructure, with children under 16 years of age accounting for about 45 percent of the country's population. Report given by Centre for Educational Statistic, (2005) and the United Nation Development Programme (UNDP,2008) stated that, the reason for the steady increase in enrolment in to secondary school over the years in Nigeria is due to education being viewed as a tools of realization of a wide range of important benefit. Others include increase economic growth, enhance productivity across the sectors and individual earning. Many states have made important strides in class-size reduction, higher academic standards, greater accountability and improved teacher preparation. The important missing link in these initiatives to improve student learning is the need for more school counsellors and other student support services, such as school psychologists, school social workers, and school nurses. In many states, students' access to counsellors varies by grade level, and some school districts have no counselling programs at all. When counselling programs exist, counsellors are often asked to add administrative duties such as testing, supervising and class scheduling, (Portman,2009).

Statement of the Problem

The Nigeria educational goals are set out in terms of their relevance to the needs of the individuals and those of the society; in consonance with the realities of our environment and the modern world to achieved these goal. Teaching and learning process are planned to be carried out in an ideal situation where the standard size of the students/teachers, conducive school location for teaching and learners and teachers' ratio shall not be more than 40 per teacher. The provision of special and adequate educational facilities, inducement for teachers in the urban area make them

stay on their jobs are stated in the national policy of education. The provision of equal access to educational materials and opportunities, government regulating the establishment of the school and their supervision, provision of quality infrastructure for effective teaching and learning process are all indicated from National Policy on Education (FGN,2014).

The researcher observed that, the above situation is not feasible in some Borno state senior secondary school system. Classroom management by teachers is increasingly becoming more difficult due to over population, school are located in insurgent site of the city. public school are dilapidated in the state, principals and teachers reject posting to the other areas because of no special inducement, both human and material resources are not proportionally distributed and also most parent believe that, private school perform better academically than public. This imbalance in school characteristic may linked to low academic performance of students of senior secondary school in Borno state. it is against this background that, the researcher investigated the relationship between school size and students' academic achievement in Bama town, Borno stat

Objectives of the study

The objective of the study is to find out the relationship between:

School size and students' academic achievement in senior secondary school in Bama Township.

Significance of the study

The study will benefit the government, principal, teachers, counsellors, para counsellors, proprietors of private schools, parents, students and future researchers. Government through her agents such as educational planners, policy makers, teaching service Board, will find this study useful in obtaining information that will help them to organize and designed schools and their programmes towards effective achievement of educational goals and objectives. meeting the educational need of a community by designing school planning that is suitable for the community.

Theoretical framework

The study is based on two theoretical frameworks which are the systems theory input/output model, developed by Ludwig van Bertalanffy (1956), and theory of academic achievement by Herbert J Wallberg (1981). The Ludwig van Bertalanffy systems theory will guide objectives which are to determine the relationship between: school size and stunts academic achievement, in Bama township, Borno State, Nigeria. These two theoretical framework will be used in this study in other for the effective taken care of it.

The academic achievement theory posits that psychological characteristics of the individual students and their immediate psychological environments influence educational outcomes (cognitive, behavioral and attitudinal). The theory specified that family environment is one of the supplementary or supportive factors affecting the students' academic outcome. Wallbergs global model specifies that classrooms learning is a multiplicative, diminishing-returns and function of four essential factors student's ability and motivation, quality/quantity of instruction and possibly four supplementary or supportive factors-the social psychological environment of the classroom, education stimulating condition in the home and peer group and exposure to mass media. Each of the essential factors appears to be necessary but insufficient by itself for classroom learning.

Relationship Between School Size and Students' Academic Achievement

School size is an important policy parameter and also one potential measure of school quality over which the policy makers have control. School quality broadly defined as an important predictor of educational attainment and labor-market success. (Altonji and Mansfield 2011), During recent decades, a major consolidation process has taken place in many Organization of Economic Cooperation Development (OCED) countries that resulted in a rapidly declining numbers of schools and school district and increase in average school size for United State (Newman, 2006). The question being heatedly discussed in many (OCED) countries during recent decade are, does school size matter for student's performance, and which size is optimal for student's outcomes and for economics efficiency reasons (Humlum and Smith, 2004).

Leithwood and Jantzi (2009) observed that the estimates of the impact of school size in the literature vary considerably and based on the existing research it is not easy to give an unambiguous policy advice about school size. Their reason being that the result may vary across countries because of institutional differences and also the nations "small school" and "large school" vary from country to country. In some countries average school size is relatively large, for instance, the United Kingdom, where many of the students are based on an average school of around 1,000 students (Humlum and Smith, 2014). Newman, M. Z, Garred, D. Elbourne, S., Braddy, P. Noden J.T., and West, A. (2006) found that the average school size also varies considerably in U.S studies, ranging from a few hundred students to very large average school size. In Africa the studies according to Koussihouede and Gomes (2016), in conjunction with the center for Research and Opinion polls. (CROP), found that, research on school size contributes to informing policy makers on optimal primary school size. The result of the research that pass school sensitivity analysis, show that, neither large school is favorable on students' performance. Based on estimated variation on their sensitivity analysis, an optimal school size of 470-500 is proposed.

Studies conducted by Humlum and Smith (2014), aim at identified an optimal school sizes and this also seem to vary from country to country considerably. Bradley and Taylor (1998), cited in Humlum and Smith (2014), are in support that the optimal school size (based on the study in English schools) is better for older children. For children age from 11-16, it is about 1,200 students and for children age 11-18 it is about 1500 students. Optimal school size has long been an issue of contention at both the elementary and secondary school levels. Throughout the last century, the organizational tendency in education has fluctuated between a push for small or large schools. Advocate for each perspective have relentlessly for referendum in broad across the North America. Jones and Ezeife (2011).

Jones and Ezeife (2011) found that there is little agreement over what constitute the most effective school size. From the evolution of one room school house to the Mega School of today, debate on whether to consolidate or maintain small school had been ranging for a long time. In their attempt to trace the origin of school consolidation trend, Jones and Ezeife (2011) quoted Massachusetts law of 1867, which marked the loss of independent self-control over individual schools and commencement of local town management. They maintained that prior to this law, most school were small in size and many were considered rural in nature. The introduction of town management resulted in the effective consolidation of country schools.

METHODOLOGY

Research Design

The study adopted Expo-facto and Correlation designs to determine the Relationship Between School size and Students' Academic achievement in Bama town, Borno state, Nigeria. Kerlinger (1970) defined Expo-facto research design as in which independent variable or variable have already occurred and in which the researcher started with observation of a dependent variable or variables. The researcher then studied the independent variables (s) in retrospect for their possible relationship to the dependent variables (s). The researcher examined retrospectively the relationship of a naturally occurring event on a subsequent outcome with a view to establishing a causal link between them. Expo-facto design is suitable for this study because it is used in testing out possible antecedent of events that had happened and cannot therefore be controlled, engineered or manipulated by the investigator. In this study, the students whose results were used had already graduated from the various sampled schools. The researcher used Pro-foma to collect these results.

Population and sampling

The Population of this study constituted public senior secondary school in Bama town, Borno state. the total population of selected school are two senior secondary school which located within the township. the students' population of this study comprised of the NECO result of the students

who graduated from 2022/2023 in selected public senior secondary school in Bama town, Borno State.

Research instrument

The Pro-forma was design by the researcher to collect the results of the student for National Examination Council of Nigeria, (NECO), in five subject, which include English language, mathematics, biology, chemistry and physic from 2022/2023. This subject was choosing for this study on the basis of being core subject for science students. The instrument was face validated by the researcher and other professionals.

Method of Data Analysis

The data collected was analysed using both descriptive and inferential statistics. The descriptive statistic was used to compute the mean and standard deviation of the variables of the study, while inferential statistic (Pearson product moment correlation coefficient) was used to test the hypothesis. Pearson product moment correlation coefficient according to Awotunde and Ugundunluwa (2004) compares two or more variables which are subject to less error. Pearson product moment correlation coefficient is relevant to this study because of its ability to determine the relationship between school size and student’s academic achievement

Data Analysis and Result

Hypothesis One (H₀₁): There is no significant relationship between school size and students’ academic achievement in Bama town, Borno State senior secondary schools.

Table 4.1: Result of Pearson Product Moment Correlation on Relationship Between School Size and Students Academic Achievement in Bama town, Borno State Senior Secondary Schools.

Variables	Mean	Standard dev.	R	Sig. value	Remark
Students’ Academic performance	4040.25	1955.952	0.851	0.007	Reject Ho
School size	1665.00	1044.627			

Source: Field survey, 2024

present the Pearson moment correlation between the school size and academic performance. The result shows there is strong highly positive correlation existing between the school size and academic achievement with $r = 0.851$ and also, the *sig. value* = 0.007 which is less than level of significance, $\alpha = 0.05$, therefore we reject null hypothesis and conclude that there is significant relationship between the school size and academic achievement.

Discussion of the findings

The first finding revealed there is significant relationship between school size and student’s academics achievement in senior secondary school in Bama town. These findings agree with a study conducted by Leith and Jantzi (2009), observed that the estimates of the impact of school size in the literature vary considerably and based on the existing research it is not easy to give an unambiguous policy advice about school size, there is reason being that the result may vary across countries because of institutional differences and also the notion “small school” and “large” school vary from country to country. in some countries, average school size is relatively large, for instance, the United Kingdom, where many of the students are based on an average school of around 1000 students (Humlum and Smith, 2014). (Newman, M.Z., Garret, Elbourne, S., Braddy, P., Noden, J. T., and West, A. (2006), found that the average school size also varies considerably in US studies, ranging from a few hundred students to very large average school size. In Africa, the studies according to Koussihouede and Gomes (2016), with conjunction with the Centre for Research and Opinion Polls. (CROP), found that research on school size contribute to informing policy makers on optimal primary school size. The result of the research, that pass school

sensitivity Analysis shows that neither large school is favourable on students' performance. Based on the estimated variation in the sensitivity analysis, an optimal school size of 470-500 is proposed.

Also finding of the study conducted by Leung and Ferris (2008) found that large school experience higher rates of student's indiscipline. Disorderly incidence may decrease academic performance through some combination of diverting students attention, creating a fearful or disruptive environment, changing school social norms and decreasing students attention. In the same vein Gottfresson and Die Pietro, (2011), discover that the benefit of large schools came as a cost as such schools have higher rates of students absences and social disorder that may hinder cognitive and empirical evidence on relationship between school size and academic achievement.

Conclusion

In conclusion, the study brought out the investigation of academic achievement which are mode of schools setting as school size, the finding of the study revealed that, there is significant relationship between school size, achievement in Bama town Borno State senior secondary schools.

Based on these findings and within the scope of the study, it is concluded that school size, have significant relationship to students' academic achievement in senior secondary school in Bama, Borno State. These variables should be focus on by the educational planners in Borno State to improve school's standard

Recommendation

Since this study revealed that, school size is significant to students' academic achievement, students in large school should work hard to improve their academic performance. And Borno State government try as much as possible to protect the lives of teachers, students and properties of the senior secondary schools within the Bama township.

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