
RELATIONSHIP BETWEEN SOCIOECONOMIC STATUS AND ACADEMIC ACHIEVEMENT OF GIRLS IN SCIENCE AND TECHNICAL COLLEGES, KANO STATE

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Abstract

This study explores the relationship between socio economic status and academic achievement of Girls in Science and Technical Colleges, Kano state. A correlational design was used, two objectives and hypotheses were formulated and tested at 0.05 level of significance. The study comprised of 1794 female students as the total population and 322 were sampled out using multi stage sampling technique. For data collection, Parental Socioeconomic Status Scale with a face validity and reliability of 0.78. It was found out that students with higher level of socioeconomic status were having higher academic achievement compared to students with lower socioeconomic status.

Keywords: Socio Economic Status, Academic Achievement

Introduction

Over recent years, there has been increasing attention to the importance of academic achievement. This is because enhancing the quality of education, human resources and investment in education are believed to be factors which contribute immensely to economic growth and development of a nation as education serves as a tool for national development. As such, a number of factors have been put forward by researchers to predict academic achievement in students ranging from intelligence, personality, and socio-economic status among others.

The family is the primary agent of socialization, parental involvement in children can have a long lasting impact on well-being. Socio-economic status is the hierarchy of social class to which one belongs. While some learners belong to families with high socio-economic status, others belong to families with low socio-economic status. Consequently, these differences create a gap to access to qualitative education. Economic status of parent plays a vital role in academic success of a student. Socio-economic status is usually associated with parental level of education, parental occupation and family income. The educational level of parent can have a great impact on performance of a student. Children of high socio-economic parents are more exposed to learning due to the fact that their parents are familiar with the education system and can render all sort of support by providing suitable learning environment, provision of necessary facilities for learning as well as guiding and monitoring their activities in school. Whereas, economic disadvantaged family may not be able to provide support on the issue of home works, extra lesson, payment of school fees, school uniforms, writing materials, attending Parent Teachers Association (PTA) meeting among other children's educational needs as a result of poor economic conditions.

With regards to the importance of educating women for developing countries like Nigeria, the question of women's education can no longer be ignored, and their involvement in the development process should not be disregarded as it's believed that once you educate a woman is equivalent to you educating the nation because she is the child bearer and rearer. Thus, the family's socio-economic status influences a girl's educational achievement. The manifestation is that the financial and moral support provided to girls for schooling is often limited. As a result of socio-cultural beliefs, customs and practices, girl's expectations and other traditions play a significant role in the educational performance of women by affecting their school attendance and even leading to drop out or repetition

On the other hand, the study of Science and Technical subjects is of paramount importance in the economic growth and development of Nigeria in general and Kano state in particular. This discipline of study had been existing in schools for a long time yet it does not bear fruit like it obtains in the developed world. Studies have revealed that there has been downward trend in science and technical secondary schools students with regards to their academic achievement. Among the problems facing the girls' science and technical schools is lost of goal, poor performance, drop out, inability to maintain attendance in the classroom, inadequacy of science and technical tools or instruments in labs, low participation in classroom activities and feeling disability in learning academic materials.

In order to address the issue, some of the factors associated with negative academic achievement are personality traits of the learner and socio-economic background of the learner. In view of this, a large body of work from an economic deprivation perspective suggests the importance of family economic resources in children's academic success (Lan 2004; Cowan, Hauser, Kominski, Levin, Lucas, Morgan, Spencer & Chapman 2012; Ghaemi

& Yazdanpanah, 2014 & Hamid 2011). The income of parents determines the extent to which children basic needs are provided. Where such needs are not fulfilled, it is inevitable that the learning of a child is seriously affected. The inability to pay regular schools fees due to unfavorable economic situation force some students to withdraw or miss classes. Most students hail from parents with low educational background thereby setting their children's education on low priority and engaging less in their children's education as a result facing backwardness in academics. Highly educated parents are more likely to give their children the necessary academic foundations at home that will enable them perform well in school (Adesina & Okewole 2014). Parents of different occupational class as well contribute based on their occupation and availability of resources at their disposal.

Statement of the Problem

The issue of academic achievement has been a great concern in Nigeria today. The complex nature of our schools reflects the essentially more complex nature of our societies. However, the society place excessively outrageous demand on students expecting them to have sound education, high moral standard, a lively and peaceful development. This is so because in the present era of technological revolution, education is considered to be central to socio-economic and technological development of any nation. Recorded poor academic achievement in English language among science and technical school students lately in both internal and external examinations necessitates investigating on the factors that result to such educational backwardness. Among the most widely accepted issues related and in most cases agreed to be determinants of students academic achievement are the students personality dispositions which are largely permanent and mostly genetic and parental socio-economic status a phenomena that in some way has to do with student's home environment and is also capable of influencing learning conditions.

Does socioeconomic status have a relationship with one's academic achievement? The socio-economic background of the family impacts positively or negatively on the overall achievement of a child in school. Hence, in Nigeria today, recent development in favor of the explosion of private schools competing and in some cases increasing a drawing line between students from different socio-economic background as well as their perceived superiority in terms of result in the final year examinations has caused to make the assertion of socio-economic base performance academically. As matter of most families are poor and cannot afford the basic needs of life talk more of saving up to paying off children's school fees. Students from such families are forced to miss classes, inability to do assignments as a result of parent illiteracy and unavailability of efficient reading materials. Most a times students appear to be smart and brilliant in the classroom but may turn out to perform poorly as a result of inadequacy of educational infrastructure like textbook, writing materials and well equipped libraries and laboratories, as well as unconducive environment for learning. However, Students from economic disadvantaged families are usually held back in pursuing their academic careers, which in turn create a huge disparity between the rich and the poor. In contrast, students from high socio economic status are more likely to attend better schools and have stimulating home environment that stimulate learning. In addition, literate parents contribute to children learning through day-to-day interaction, engaging in school activities and also have and set higher aspirations and expectations for their children's future. This in turn give a child a sense of belonging that their future is valued, and eventually transmit the values of doing well in classroom and maintain positive relationship with peers and teachers.

Objectives of the Study

The objectives of this study are to determine

- i. The relationship between socio-economic status and academic achievement in English language among Girls in Kano state science and technical colleges.
- ii. Find out differences in academic achievement in English language between science and technical students of Girls in Kano state science and technical colleges.

Research Questions

The study provides answers to the following research questions;

- i. Is there a relationship between socio-economic status and academic achievement in English language among Girls in Kano state science and technical colleges?
- ii. Is there any difference in academic achievement in English language between science and technical students?

Hypotheses

The following hypotheses are formulated based on the research questions;

Ho1 There is no significant relationship between socio-economic status and academic achievement of Girls in English language among students in Kano state science and technical colleges.

Ho2 There is no significant difference in academic achievement in English language between science and technical students in Kano state science and technical colleges.

LITERATURE REVIEW

According to Cowan, Hauser, Komiski, Levin, Lucas, Morgan, Spencer & Chapman (2012), socio-economic status is one's access to financial, social, cultural and human capital resources. While Suleman, Hussain, Khan, & Nisa (2012), put socio-economic status as the combination of economic and sociological measure of an individual work experience and the economic and social position of an individual or family in relation to others on basis of income, educational level and occupational status. Brogan (2009) likewise describes socio-economic status as the measure of influence that the social environment has on individuals, families, communities and schools. In the same vein, Parson, Stephanie & Deborah (2001) define socio economic status as an expression which is used to differentiate between people relative status in the community regarding family, income, political, prior educational background & educational status. Saifi & Mehmood (2011) state that socio economic status is a combination measure of economic and social position of an individual or family relative to others on the basis of income, education and occupation. It is a finely graded hierarchy of social positions which can be used to illustrate a person's overall social position or reputation.

Gaur (2013), define socio-economic status as a measure of an individuals or family's economic and social position in relation to others based on various variables responsible for that like income, education, occupation, family effluence, physical asset, social position, social participation, caste and political influence. In other words it refers to ones position

within a hierarchical social structure. However, socio-economic status is more commonly used to depict an economic difference in society as a whole. Socio-economic status is usually divided into two (2) levels. These levels are high and low. To describe a particular level to which an individual belong to is measured mostly using three (3) variables which are: income, occupation and level of education.

On the other hand, Unity & Igbudu (2015), explains academic achievement as the outcome of education, that is the extent which a student, teacher or institution has achieved their goals. According to Bruce & Neville (1979) in Mimrot (2016), educational achievement is measured by standardized achievement test developed for school subjects. This implies that academic achievement is measured in relation to what is attained at the end of a course, since it is the accomplishment of medium or long term objective of education.

Moreso, Academic achievement is explained by Steinmayr, Meibner, Weidinger & Wirthwein (2014) as that which represents performance outcome that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments, specifically in schools. Hence, academic achievement should be considered to be a multifaceted construct that comprises different domains of learning. Bacon (2011) also sees it as standardized test score, grades, and overall academic ability and performance outcome

Theoretical Framework

Parental Investment Theory

Robert Triver's (1972) Parental investment theory refers to any efforts undertaken by a parent or caretaker for the betterment, safety or well-being of a child that could be of benefit to parent. In this theory the relationship between parents and children's economic success is the result of biological and other endowments that parents pass on to their offsprings. Its main concern is how much time and resources parents invest in their offspring helps them to succeed in all dimensions of life. Such endowments include both genetic endowments such as sex or race of a child as well as the cultural endowments such as the value place on their children's education. Types of investment include behaviors as varied as emotional concern, provision of food and shelter, health care and monetary aid. It emphasizes that indicators of socio economic status as parental income, educational and occupational prestige, distinguish financial, human and social capital. Parents financial, human and social capital investments influence adolescent's outcome. Capital investments are often described in terms of enriched home environment that provides educational resources and enhanced education and achievement opportunities. Parents advantaged by greater financial, human and social capital have more to invest in children, while poorer parents are limited to investing in basic family needs and have less access to resources and potentially foster children's wellbeing.

Parents' financial, human and social capital influences test and cognitive development, social competence, lower educational attainment, school dropout and bleaker future economic prospects. Moreover, social and human capital tends to be associated with positive outcome including indicators of achievement and lack of such capital is associated with negative outcomes.

According to this model, children from economic advantaged family are more likely to succeed because their parents can afford things they need such as food, medical care, and buy things that can help their children get ahead such as computers, extra lessons and trips to interesting and educational places. On the other hand, children whose basic material needs

are not met have a hard time acquiring the skills that helps them succeed. Therefore, the relevance of this theory to the study is the fact that it deals with the fundamental issues on how family affects the educational achievement of children.

Review of Empirical Studies

Ahmar & Anwar (2013) investigated on socio economic status and its relation to academic achievement of higher secondary school students. Collected a sample of 200 students from five higher secondary schools of Lucknow city in India. The result revealed there is a significant difference between high and low socio economic status. Academic achievement was influenced by socio economic status and those belonging to high socio economic status showed better performance.

Suleman, Hussain & Khan (2012) investigated on Effects of Parental Socioeconomic Status on the Academic Achievement of Secondary School Students in Karak District in Pakistan. The researcher concluded that there is significant effect of parental socio-economic status on the academic achievement of secondary school students. Students from low socio-economic status have lower academic achievement as compared to the academic achievement of students from higher socio-economic status.

A research on Socio-Economic Status and Gender as Predictors of Students Academic Achievement in Economics was conducted by Alade, Nwadingwe & Victor (2014). The result revealed that there is significant relationship between parental educational attainment and students' academic achievement, difference also exists between socio-economic status and students academic achievement.

Ugwuja (2010) conducted a research title Influence of Family Background on the Academic Achievement of Senior Secondary School Students on Nsukka Educational Zone Of Enugu State. The population of the study consists of all the Senior Secondary Class Two (SS2) Students in fifty three public secondary schools in Nsukka Education Zone. These fifty three schools have a population of seven thousand, nine hundred and forty five (7945) SS 11 Students. The samples size for the study comprised eight hundred and sixteen (816) students from the Public secondary schools in Nsukka Education Zone. The finding of the study revealed that students from educated parents more than those from uneducated parents in academics; students from high income status parents enjoy considerable advantage than low income status parents academically. Thereby recommending that parents should diversify their sources of income to be able to provide fund for their children's schooling.

In contrast, Osuafor & Okonkwo (2013) investigated on the influence of family background on academic achievement of secondary school Biology students in Anambra State. The result revealed that family structure; parents occupational and educational level did not have significant influence on students' achievement in Biology.

Methodology

Population and Sample Size

The researchers used correlation design. The population of the study consists of all girls in Kano State Science and Technical Schools Board who sat for the 2016/2017 English qualify examinations in Kano state. The total number of students is 1794 out of which 912 are Science students and 882 were technical students from 16 years and above. Below is a table for population distribution of each school provided by the Kano State Science and Technical

Schools Board. Based on recommendation in Researcher Advisor (2006), a sample size 322 which comprised of 165 Science students and 157 Technical students were selected out of 1794 population.

Sampling Techniques

Multi stage sampling technique was adopted. The first stage proportionate sampling was used in order to have the same proportion representative. Then simple random sampling was used to select the classes of which to sample from. Actual sample subjects were selected using systematic sampling technique where the number was decided using attendance register.

Data Collection Instruments

Parental Socio Economic Status Scale

It's an adaption from Kuppaswamy (1976) with 0.84 reliability. The questionnaire named Parental Socio Economic Status Scale (PSESS) was formed with 25 items to be responded by 4 likert scale. Ranging from strongly agree (SA), agree (A), disagree (D) and strongly disagree (SD). It consists of 2 sections. Section A contains Demographic questions and section B consists of socioeconomic status questions.

Academic Achievement Score

The researcher used 2016/2017 Session English Qualifying Examinations scores.

Validity of the Instruments

Validity is concerned with the meaningfulness of research components. The researcher chose face validity of the instruments. The item or instrument was taken to experts in the field of Psychology and tests and measurement and the validity of the instrument was ascertained. Some of the items were modified and re-worded.

Reliability of Instruments

The personality inventory used in this research is a standard inventory and it had been used several times in different researches. To ascertain their reliability, a pilot test was conducted outside the study population. However, for surveying the reliability of the research Cronbach Alpha was utilized and the internal consistency reliability was 0.781.

Procedure for Data Collection

In order to collect data, the researcher first visited the Science and Technical schools board and collected a written permission for easy access to the study population. Thereafter, the researcher visited the schools concerned. With the help of some teachers from the school, 322 questionnaires were distributed to the selected samples and all were retrieved on same day. Necessary oral instructions were given to ensure proper understanding of the test contents.

Procedures for Data Analyses

Point Bi-serial was used to test hypothesis (Ho1) as it consists of a dichotomous variable and lastly t-test for independent sample was used in testing hypothesis (Ho2) that aimed at determining differences. Both Point bi-serial and t-test were utilized with the aid of statistical package for the Social Sciences (SPSS) version 22. Point Bi-serial correlation and an

independent sample t-test were used at the inferential level to test the formulated null hypotheses at 0.05 level of significance.

Summary of the Data

Table 1

Parental Socio-economic status level

Socio-economic status level	Frequency	Percentage%
High SES	180	56%
Low SES	142	44%
Total	322	100%

Table 1 provides the breakdown of the study sample based on their parental socio-economic status level. Parental socio-economic status was categorized as high and low. From the table, there are 180 respondents representing 56% of the study sample from parents with high socio-economic status while 142 respondents representing 44% of the study sample are from parents with low socio-economic status.

Table 2. Students category

Students Category	Frequency	Percentage%
Science schools students	165	51%
Technical schools students	157	49%
Total	322	100%

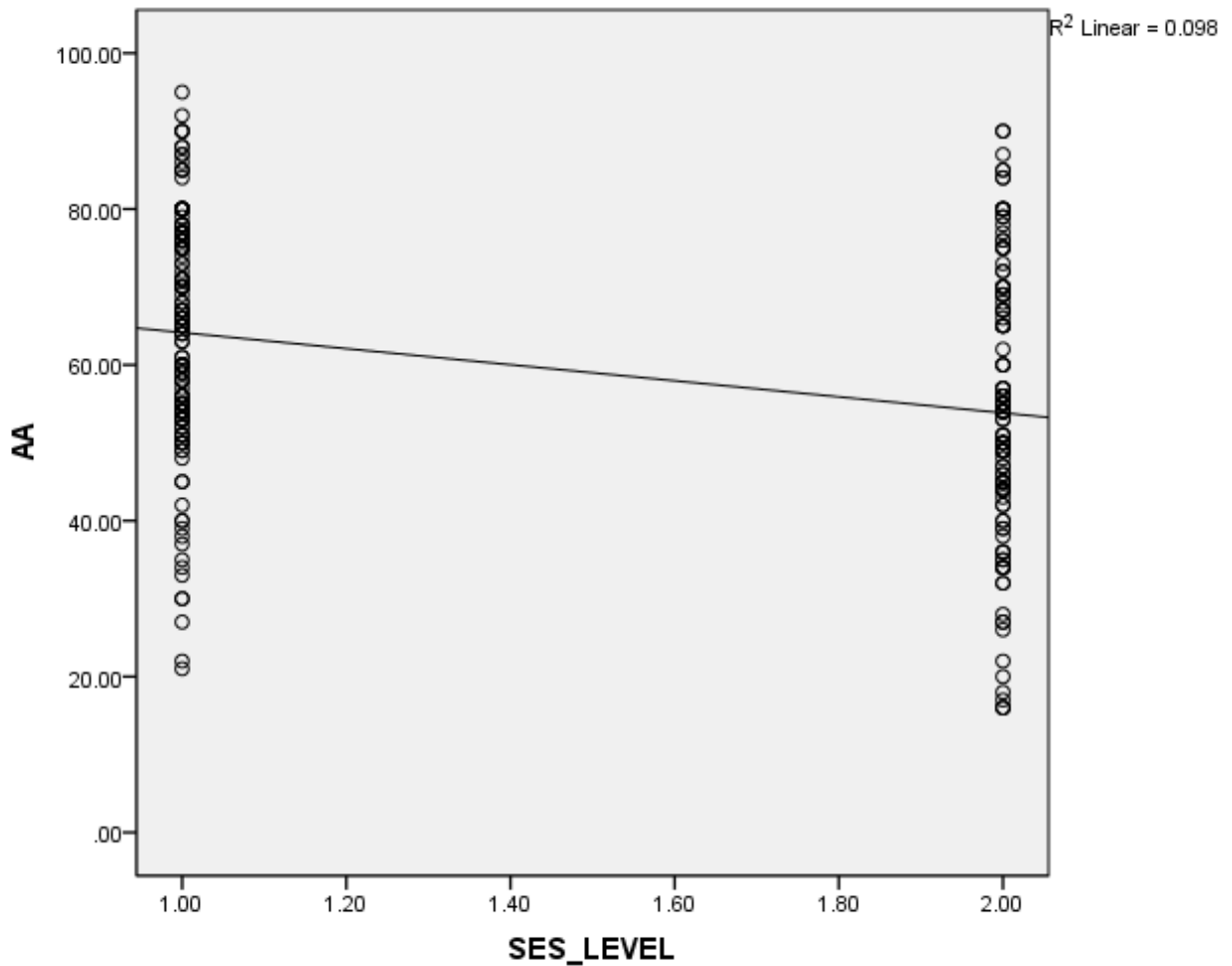
Table 2 provides the breakdown of the study sample based on school. From the table, a total of 165 students representing 51% of the study sample are from science schools while a total number of 157 students representing 49% of the study sample are from technical school.

Data Analysis

H₀₁: There is no significant relationship between socio-economic status and academic achievement of Girls in English language among students in Kano statescience and technical colleges.

Table 3. Relationship between socio-economic status and academic achievement

Variables	Mean	SD	r	P	N
Socio-economic status	1.44	.49	.312	.000	322
Academic Achievement	59.60	16.41			



From the table above, r represents the point-biserial correlation between socio-economic status and academic achievement of students. The correlation value of $r = .312$ shows that a direct relationship exists between socio-economic status level and students' academic achievement. Based on the obtained correlation of ($r = .312, p = .000, p < .05$), it follows that a statistically significant relationship exists between socio-economic and academic achievement of students. Figure 1 represents the point bi-serial correlation. From the figure the dots from left hand side represents academic achievement of students from high level socio-economic status while the dots from the right hand represents academic achievement of students from low level of socio-economic status. On the other hand, the slope of the graph shows the nature of relationship between the variables. From the figure, 1 stands for high socio-economic status while 2 stands for low socio-economic status. The slope of the graph shows that students from high level of socio-economic status are having higher level of academic achievement while students from low level socio-economic status were having lower level of academic achievement. Based on the obtained result, the stated null hypothesis that there is no significant relationship between socio-economic status and academic achievement of Girls in English language among students in Kano statescience and technical colleges was rejected. The study revealed that a statistically significant relationship exists between level of socio-economic status and students' academic achievement in English language.

Ho2: There is no significant difference in academic achievement in English language between science and technical students in Kano state science and technical colleges.

Table 4. Difference in academic achievement between science and technical school students

Type of School	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>t-value</i>	<i>df</i>	<i>p-value</i>
Science School	165	54.71	16.25	-2.644	320	.009
Technical School	157	59.97	19.36			

From table 4 above, the mean for each group was $M=54.71$ for students in science schools and $M=59.97$ for students in technical schools. The results revealed that the mean score in academic achievement for students in science schools ($M=54.71$, $SD=16.25$) is significantly different from that of the mean score in academic achievement for students in technical schools ($M=59.97$, $SD=19.36$) at t -value ($t=-2.644$, $df=320$, $p=.009$). Thus, our P value .009 is $< .05$ level of significance. Based on the obtained result, the null hypothesis that there is no significant difference in academic achievement in English language between science and technical students in Kano state science and technical colleges was rejected. The result shows that technical schools students were having a higher mean score in their academic achievement than students from science schools.

Conclusions

Based on the study findings, the following conclusions were made; High level of socio-economic status is associated with higher level of academic achievement and low level socio-economic status is associated with low level of students' academic achievement. And lastly students in girls' technical college are having higher level of academic achievement in English language than students in girls' science colleges in Kano state.

Recommendations from the study

1. Government should make all the necessary facilities for effective teaching and learning available. So doing will reduce socioeconomic status gap among student.
2. Educational authority should provide adequate supervisory schedule to checkmate erring teachers across all school. So doing will reduce the variation in overall school achievement.
3. Parents should support children in whatever they do
4. Parents are advised to guide and counsel their children

Recommendations for Further studies

Study need to be conducted to examine the relationship between personality trait, socio-economic status and academic achievement of arts and commercial school students of Kano state.

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