

IMPACT OF SOCIOECONOMIC STATUS, FAMILY SIZE AND GENDER ON ACADEMIC ACHIEVEMENT OF SENIOR SECONDARY SCHOOL STUDENTS IN KATSINA STATE, NIGERIA

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Abstract

The study investigated the impact of socioeconomic status on academic achievement of senior secondary school students in Katsina state. The study has three objectives, three research question and three hypotheses were formulated and tested at 0.05 significant level. The study employed ex post-facto research and developed “socioeconomic status, family size and gender questionnaire (SFGQ), used in collecting the data among the year three senior secondary school students in Katsina State. The instrument has validity and reliability using cronbach alpha obtained at 0.833. The population of the study comprised 42,308 students of senior secondary schools students, 370 students were sampled on the recommendation of research adviser 2006 table. Data collected were statistically analyzed using independent sample T-test. The findings of the study revealed that, there is a significant difference in student’s socioeconomic status and their academic achievement, there is no significant difference in their family size and their academic achievement and there is no significant difference in gender on students’ academic achievement among senior secondary school students in Katsina State. The study concluded that the parental socioeconomic status has an impact on student’s academic achievements, but family size and gender have no impact on students’ academic achievement of senior secondary schools in Katsina State. Based on the findings it was therefore recommended that the school and the teachers should treat their students equally with considering their individual difference in social class or family size and members should be encouraging their children to perform better. Therefore, career information should be provided to both genders male and female students in order to develop their studying habits.

Keywords: Academic Achievement, Family Size, Socioeconomic Status

Introduction

Academic achievement is a critical indicator of student success and future opportunities. Numerous factors contribute to academic outcomes, including socioeconomic status (SES), family size, and gender. In Katsina State, Nigeria, these factors are particularly significant given the region's unique socio-cultural and economic context. Socioeconomic status, encompassing income, education, and occupation, profoundly impacts students' academic performance. Research has consistently shown that students from higher SES backgrounds tend to perform better academically due to greater access to educational resources, parental involvement, and a conducive learning environment (Bradley & Corwyn, 2015). Conversely, students from lower SES backgrounds often face challenges such as limited access to quality education and learning materials, which can hinder academic achievement (Siraj-Blatchford et al., 2015).

Family size also plays a crucial role in academic outcomes. Larger family sizes may dilute resources such as parental attention, financial support, and educational materials, thereby affecting students' academic performance. Studies suggest that children from smaller families tend to achieve higher academic success due to better resource allocation (Powell & Steelman, 2015; Blake, 2017). In contrast, students from larger families may experience divided attention and limited resources, potentially impacting their academic outcomes. Gender differences in academic achievement have been widely studied, with varying results across different contexts. In many regions, including Katsina State, traditional gender roles and expectations influence educational attainment. Studies indicate that boys and girls may perform differently in certain subjects due to societal expectations and gender norms (UNESCO, 2019). While some studies show that boys tend to excel in science and mathematics, girls often outperform boys in language and arts subjects (Hyde et al., 2016).

Katsina State presents a unique context where the interplay of SES, family size, and gender significantly impacts academic achievement. The region faces socioeconomic challenges, including poverty and limited access to quality education, which exacerbate disparities in academic performance. Moreover, cultural norms and family structures further influence educational outcomes.

This study aims to examine the impact of socioeconomic status, family size, and gender on the academic achievement of senior secondary school students in Katsina State. By understanding these factors, policymakers and educators can develop targeted interventions to enhance academic outcomes and reduce disparities.

Statement of the Problem

The gap in the academic achievement between students and academic excellence constitute a great source of worry and serious concern as well as discomfiture to parents, school managers, teachers, policy makers, and various governments responsible for the education of students in senior secondary schools. Experience has shown that among the senior secondary school students in Katsina state, there exist some differences which influence student's academic achievement, such as, some students have problems with the provision of school uniform but others do not, some come to school properly feed while some are not. Likewise, some students were motivated by their parents through the provision of educational materials like textbooks, and exercise books but others were not.

In light of this the main problem of this research is to find out if there is an impact of socioeconomic status, family size and gender on academic achievement of senior secondary school students in Katsina state. The researcher really observed that in Katsina state parents of different occupational classes often have different styles of child rearing, different ways of disciplining their children and different ways of reacting to their children. These differences do not express themselves consistently as expected in case of every family; rather they influence the average tendencies of families for different occupational classes.

The study will investigate the various characteristics common to the students' socioeconomic status, family size and relate them to the academic achievement of students in senior secondary schools in Katsina state.

Research Objectives

The followings are the objectives of the study for the purpose of this study:

1. To examine the impact of parental socio-economic status on student's academic achievement in senior secondary schools of Katsina State;

2. To examine the impact of family size on student's academic achievement in senior secondary schools of Katsina State;
3. To determine gender differences on student's academic achievement in senior secondary schools of Katsina State.

Research Questions

The followings are the research questions of the study for the purpose of this study:

1. What is the impact of parental socioeconomic status on students' achievement in senior secondary schools in Katsina State?
2. What is the impact of family size on academic achievement of senior secondary schools students in Katsina State?
3. To what extent does gender difference affect student's academic achievement in senior secondary schools in Katsina State?

Hypotheses

Below are the hypotheses that were developed for the purpose of this study in respect of the objectives of the study:

H₀₁: There is no significant difference in the academic achievement of students from higher socioeconomic status in senior secondary schools students of Katsina State;

H₀₂: There is no significant difference between the academic achievement of students from larger families and those smaller families in senior secondary schools in Katsina State;

H₀₃: There is no significant gender difference in the academic achievement of senior secondary school students in Katsina State.

Methodology

The study adopted ex post facto research design. The research population consisted all senior secondary schools in Katsina state. According to data from Ministry of Education Katsina (2017), there are Two Hundred and Thirty Six (236) senior secondary school with the Forty Two Thousand Three Hundred and Eight (42,308) senior secondary school students in which Twenty Seven Thousand Seven Hundered and Eighty One (27,781) are male students while Fourteen Thousand Five Hundred and Twenty Seven (14,527) are males. The figures comprise male and female students for both government secondary schools, science and technical secondary schools and college of Arabic and Islamic Schools.

Table 1: Distribution of Numbers of Senior Secondary Schools and Enrollment of SSS3 Students

SN	Zone	Local Govt Areas	No. Senior Sec Schls	No. Males	No. Females	Total
1.	Katsina	Katsina, Kaita, Jibia	24	5826	3041	8867
2.	Daura	Daura, Mai'adua, Dutsi	20	2379	1242	3621
3.	Mani	Mani, Mashi, Bindawa	23	1845	963	2808
4.	Kankia	Kankia, Ingawa, Kusada	15	1971	1029	3000
5.	Dutsin-Ma	Dutsin-ma, Kurfi	16	1692	883	2575
6.	Malumfashi	Malumfashi, Kafur, Kankara	27	2340	1901	5541

7.	Funtua	Funtua, Bakori, Danja	24	3498	1826	5324
8.	Baure	Zango, Sandamu, Baure	22	1405	733	2138
9.	Rimi	Batagarawa, Rimi, Charanchi	19	1625	848	2473
10.	Safana	Safana, Batsari, Danmusa	16	1273	664	1937
11.	Musawa	Musawa, Matazu	11	1181	617	1798
12.	Faskari	Faskari, Sabuwa, Dandume	19	1462	764	2226
Total			236	27797	14511	42308

Source: Ministry of Education Annual Census, (2017)

Sample Technique

The sampling technique employed in this study is cluster sampling. Cluster sampling is one of the types of probability sampling. This is because Katsina State Ministry of Education was divided into 12 educational zones. Under each zone, there are local government areas which together form 34 Local Government Areas of Katsina State. Therefore, the researcher divided them into cluster, formed multi stage cluster sampling was applied to all members that fall under these selected zones. With this technique, a target population was divided into clusters, and then further sample takes place within the cluster. The sample size of this study consist of Three Hundred and Seventy (370) students drawn from the population based on the Research Adviser Table (2006). The number drawn was randomly selected from the overall population in the Twelve Educational Zones. Two Hundred and Forty Three (245) sampled were male and one Hundred and Twenty Six (125) sampled were females. The formula for sample size used in the research: number of population in each zone is divided by total population, multiplied by total sample size as recommended by research adviser (2006).

Table 2: Sampled Students Drawn From Population

SN	Zone	Local Government	Schools	Males	Females	Total
1.	Katsina	Kaita	GSSS Kaita	47	30	77
2.	Daura	Dutsi	GDSSS Dutsi	19	13	32
3.	Mani	Mashi	GGSSS Mashi	15	10	25
4.	Kankia	Ingawa	GSSS Ingawa	16	10	26
5.	Dutsin-Ma	Dutsin-Ma	GSSS Darawa	14	09	23
6.	Malumfashi	Malumfashi	GDSSS Karfi	29	19	48
7.	Funtua	Funtua	GDSSS Maska	28	18	46
8.	Baure	Sandamu	GSSS Fago	12	07	19
9.	Rimi	Charanchi	GSSS Charanchi	13	09	22
10.	Safana	Batsari	GSSS Wagini	10	07	17
11.	Musawa	Musawa	GPSSS Jikamshi	10	06	16
12.	Faskari	Dadume	GSSS Mahuta	12	07	19
Overall Total				125	245	370

The instrument used was adopted and adapted from Kuppuswamy's socioeconomic status scale developed (1976). Kuppuswamy scale is a composite score of education and occupation of the head of the family along with monthly income of the family, designed in five point Likert scale of 25 items, using factor

analysis, five items were removed leaving 20 items which were used in the research with the highest score of 125. The number of items in the questionnaire is 20, as such the highest score should be $20 \times 4 = 80$ and the lowest score should be $1 \times 20 = 20$. The range mark should be $80 - 20 = 60$.

The researcher administered the instrument to the sampled students with help of research assistance and also their qualifying examination scores were collected and analysed using T-Test of independent sample for all the hypotheses.

Results

This chapter presented data analysis:

H₀₁: There is no significant difference in the academic achievement of students from higher socioeconomic status in senior secondary schools in Katsina state.

Table 3. Higher and Lower Socioeconomic Status (SES) and Academic Achievement

	SES	N	Mean	SD	SE	DF	P
Academic Achievement	Lower	156	49.4551	9.61742	.77001	155	.000
	Higher	214	58.2523	8.88433	.60732	213	

In testing this hypothesis, t-test of independent sample was employed in the study. The result indicated that, there is a significant difference between students from higher socioeconomic status and those from lower socioeconomic status. The result revealed that p-value of .000 is less than level of significant .05. Therefore, the null hypothesis which states that, there is significant difference in academic achievement from students higher socioeconomic status in senior secondary school in Katsina state was rejected and concluded that there is an existence of difference in the academic achievement between students from higher socioeconomic status and those from lower socioeconomic status among senior secondary school students in Katsina state in favour of students from higher socioeconomic status.

H₀₂: There is no significant difference in the academic achievement of students from larger and smaller families in senior secondary schools in Katsina state.

Table 4. Larger and Smaller Family Size and Academic Achievement

	Family Size	N	Mean	SD	SE	df	P
Academic Achievement	Smaller	76	52.0789	10.27069	1.17813	75	.840
	Larger	294	52.6122	10.42670	.60810	293	

In testing this hypothesis, the independent T-test was computed for difference between student's family size and their academic achievement, it states whether there is statistically significant difference between students in larger and smaller families sizes. The result shows that no significant difference was found between students of larger and smaller family sizes. The p-value of .840 in the above table was greater than the significant level of .05, this means the null hypothesis accepted and retained. This affirms that no significant difference was found between students from larger and smaller family sizes.

H₀₃: There is no significant gender difference in the academic achievement of senior secondary school students in Katsina state

Table 4. Gender Difference and Academic Achievement

	Gender	N	Mean	Sd	SE	df	P
Academic							
Achievement	Male	225	50.9022	10.75952	.71730	224	.416
	Female	145	50.5241	12.82309	1.06490		

The outcome of the above independent T-test revealed that there is no significant gender difference between male and female students in their academic achievement in senior secondary schools in Katsina state. The study revealed that the p-value of .416 is greater than the level of significance .05, therefore, the null hypothesis is hereby accepted and retained. The result indicated that there is no significant difference in academic achievement of males and females among senior secondary school students in Katsina state.

Discussion

Base on the research hypothesis formulated, the result discussed below:

The findings of the research revealed that the first null hypothesis was rejected, which showed that there is significant difference between higher and lower socioeconomic status of students in senior secondary schools in Katsina state, this was supported by Okioga (2013) who conducted a research based on the socioeconomic status and students background on student's academic performances. He found that students recorded highest on the affordability on socioeconomic background of a student, the higher the socioeconomic status background the easy to afford the basic needs necessary for the academic performance. This finding also was simultaneously correspond to that of Alade et al, (2014), which revealed that parental education has a great influence on child's academic performance. But the result didn't correspond with Ogunsola et al, (2014) who discovered that, there is significant connection between academic achievement and students may not be determined by their parental socioeconomic status. They suggested that parental socioeconomic status had no corroboration with the defendant variable.

The second hypothesis revealed that the hypothesis accepted and retained. This finding was in line with Ogwa, (2014) in his PhD research dissertation conducted on family factors as predictors of academic achievement motivation of students among secondary school students. He found that family type and size did not predict academic achievement of students. Abdullahi et al, (2015), found contrary, that family type was identified as risk factor and the large dependency ratio pose a great concern in the quest of good learning environment both at home and school. They stated that out of this concern are likely that children from larger families may ended up as school dropout.

The third null hypothesis was also retained. The study indicated that gender difference was not determinant of the student's higher academic achievement. Male and female students have equal opportunity or almost have same for getting higher or lower grades in their examinations. As such gender does not predict the academic achievement of a student whether he is male or she is female. Moreover, the study conducted by Alade (2014) goes against this study, where he found gender difference in socioeconomic status on academic achievement.

Conclusion

Base on the findings, it was concluded that:

There is significant difference in the academic achievement of higher and lower families on

socioeconomic status of students in senior secondary schools in Katsina state.

There is no significant difference in the academic achievement of larger and smaller families on socioeconomic status of senior secondary schools students in Katsina state.

There is no gender difference in the academic achievement of socioeconomic status of families in senior secondary school students in Katsina state.

Recommendations

1. The schools as an organisations should be treating their students with utmost confidentiality and engage them in different educational activities and considering the individual differences among such students.
2. Teachers should be diligent in implementing the curriculum to their students and make sure every student has equal right to participate in the class activities.
3. Parents should help their children to acquire adequate information about themselves and about the opportunities available for them to maximize their potentials.
4. Career information should be provided to both males and females to develop their studying habit.

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