


## ORIGINAL ARTICLE

# The Impact of Parents' Socioeconomic Status on Students' Educational Success in Senior High Schools in the Northern Region of Ghana

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### Ethical Statement

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No conflict of interest is present in the conduction or the reporting of this study.

### ABSTRACT

The study examines the impact of parental socioeconomic status (SES) on students' academic performance in selected senior high schools in the Northern Region of Ghana. The study was grounded on the Resource Theory and the Family Investment Model. Using a quantitative approach, data were collected from 313 students through structured questionnaires and analyzed using Pearson correlation, multiple regression, and ANOVA. The results reveal a significant relationship between SES and academic achievement. Parental income, education, and occupation were positively correlated with student performance, with parental income showing the strongest correlation ( $r = 0.62$ ). Students from high-SES backgrounds had higher average scores in Mathematics (65.4), English (68.5), and Science (66.7) compared to those from low-SES backgrounds (Mathematics: 48.1, English: 49.8, Science: 49.2). Multiple regression analysis showed that parental income ( $\beta = 0.41, p = 0.000$ ) was the most significant predictor of academic success, followed by parental education ( $\beta = 0.35, p = 0.000$ ) and parental occupation ( $\beta = 0.28, p = 0.000$ ). ANOVA results confirmed significant differences in academic performance across SES levels ( $F = 35.89, p = 0.000$ ). The findings highlight the need for targeted interventions to bridge educational disparities. The study recommends scholarships, parental education initiatives, conditional cash transfers, community learning centers, and broader socio-economic reforms, to bridge the academic performance gap between high- and low-SES students. Addressing these socioeconomic barriers can enhance educational equity and improve student outcomes.

**Keywords:** Socioeconomic Status, Academic Achievement, Students, Parental Engagement, Parental Income.

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## INTRODUCTION

Education is widely regarded as a key driver of socio-economic development and personal fulfillment. In several global locations, academic achievement significantly influences prospects and quality of life; Ghana is no different (Adu Boahen & Yamauchi, 2018; Boateng, Asare, Manu, Sefah, & Adomako, 2021). However, the academic performance of students is influenced by a myriad of factors, among which the socio-economic status (SES) of parents is particularly significant. Socioeconomic status encompassing elements such as income, educational attainment, and occupational status, plays a crucial role in shaping the educational experiences and outcomes of students (Khan et al., 2024).

In the context of Ghana, and particularly in the Northern Region, socio-economic disparities are stark and pervasive. This part of the country is said to have higher poverty rates and less educational performance in comparison with the rest of the nation (Aheto-Tsegah, 2011). These socio-economic challenges have profound implications for the educational system and student performance. The Northern Region's unique socio-economic landscape makes it an important focus for understanding how parental SES influences student academic outcomes.

As initiated in 2017, the conception of Free Senior High School (FSHS) education in Ghana is a key approach intended to solve these inequalities. The FSHS policy eliminates tuition fees for senior high school students, thereby removing one of the major financial barriers to secondary education for families. This policy is expected to have a profound impact on educational access and outcomes, particularly for students from lower socio-economic backgrounds who previously may have been unable to afford secondary education. The FSHS initiative aims to level the educational playing field, ensuring that all students, regardless of their socio-economic background, have the opportunity to pursue secondary education.

Numerous studies globally have established a positive correlation between higher SES and better academic performance (Kwarteng et al., 2022; Munir et al., 2023; Nisar et al., 2017; Quaicoe, 2014). These studies suggest that parents with higher SES are more likely to provide their children with resources, conducive learning environments, and educational support, all of which contribute to better academic outcomes. Conversely, students from lower SES backgrounds often face significant barriers, including limited access to educational resources, less parental support, and adverse learning conditions.

Despite the extensive research on SES and academic performance, there is a lack of region-specific studies in Ghana, particularly in the Northern Region (Nachinaab, Kumah, & Yirenkyi, 2019). Existing research tends to focus on more developed regions or provides a national overview, often overlooking the unique socio-economic and educational contexts of less advantaged areas.

The Northern Region of Ghana is unique in several ways that necessitate focused research on the relationship between parental SES and student academic performance. First, the region experiences significant economic challenges, with a large proportion of the population engaged in subsistence agriculture and informal employment. This economic backdrop often translates into lower household incomes, limited access to quality education, and fewer educational resources for children.

Secondly, the Northern Region has historically lagged behind other regions in terms of educational attainment. Factors such as higher dropout rates, lower enrolment rates in secondary education, and inadequate school infrastructure contribute to this educational gap. These conditions highlight the critical need to understand the specific barriers and facilitators of academic success in this region (Mensah, 2013).

Moreover, the Northern Region is characterized by a diverse cultural landscape, with various ethnic groups,



languages, and traditions. These cultural factors can influence educational practices, parental involvement, and attitudes towards education, further complicating the relationship between SES and academic performance. Understanding how these cultural dimensions intersect with socio-economic factors is essential for developing tailored interventions and policies. (Kushwaha & Ahmad, 2024).

## LITERATURE REVIEW

Socio-economic status (SES) significantly influences various aspects of a child's development, including academic performance. SES is typically assessed through measures of income, education, and occupation, which collectively indicate an individual or family's economic and social position relative to others (Oakes & Rossi, 2003). The interplay of these factors shapes access to resources, opportunities, and support systems, thereby affecting educational outcomes.

### SES and Academic Performance

Research consistently shows a strong correlation between SES and academic performance. A study in the Ghotki District, Sindh, Pakistan by Ghulam Rasool Lakhan et al. (2021) investigated the socio-economic factors influencing the academic success of 10th-grade students. The study included 400 participants (200 males and 200 females) and utilized a survey questionnaire to collect data on academic performance, measured through 9th-grade annual examination results. ANOVA and t-tests revealed that parents' education and SES significantly influenced students' academic achievement in Mathematics and English. Higher and average SES levels were associated with better academic performance compared to lower SES levels. (Ghulam Rasool Lakhan et al., 2021).

Kwarteng et al. (2022) and Munir et al. (2023) found that students from higher SES backgrounds tend to achieve better academically. These students benefit from greater access to educational resources, such as books, technology, and extracurricular activities, which enhance learning opportunities and academic success. In contrast, low SES often leads to limited access to these resources, contributing to poorer academic outcomes.

Nisar et al. (2017) examined the influence of socio-economic status, school climate and study habits of secondary school students on academic achievement. Their study revealed that parents' socio-economic status, school climate and study habits had impact on students' academic achievement. This finding is consistent with other studies, such as that of Suleman et al. (2014), who explored the effects of parental socioeconomic status on the academic achievement of secondary school students in District Karak (Khyber Pakhtunkhwa) Pakistan. They concluded that students from higher SES families performed better academically, emphasizing the critical role of economic and social support in educational attainment.

Korir (2020) investigated the impact of parental SES and siblings on students' academic performance in public day secondary schools in Kenya. The study found that parental income was a significant predictor of academic success, highlighting the influence of parents' economic stability on children's education. Similarly, Rajendra (2020) studied the effect of parental education and their occupation on mathematics achievement of secondary level students. In this study, parental education and occupation revealed to be important factors for student's achievement in mathematics.

### SES and Educational Policies

In Ghana, policies such as the Free Compulsory Universal Basic Education (FCUBE) and the introduction of the Free Senior High School (FSHS) policy aimed to address educational inequalities by removing tuition fees for all students. These policies impact on educational access and outcomes has been significant, particularly for students from lower SES backgrounds. Osei-Tutu et al. (2022) reported increased enrolment and attendance rates due to the FSHS policy,

especially among disadvantaged students. However, challenges such as overcrowding, inadequate infrastructure, and resource constraints persist, affecting the policy's effectiveness (Osei-Tutu et al., 2022).

A study conducted by Oduro-Ofori et al. (2023) in the Sefwi Wiawso Municipality in the Western North Region of Ghana examined the effects of parental SES on the performance of senior high school students. Using a descriptive survey research design, the study targeted 960 second-year students from four senior high schools, ultimately sampling 203 students. The findings indicated that parents' income significantly affects students' academic performance. The educational level of parents also had a significant effect on students' performance, as did the parents' occupation. Moreover, it was found that the socio-economic status of parents significantly influences students' self-motivation for learning and overall academic performance. The study recommended that the government of Ghana initiate policies to empower parents, particularly in high-poverty areas, to better support their children's education (Oduro-Ofori et al., 2023).

Again, Owusu (2024) examined the impact of socioeconomic status on academic achievement among elementary school students in Ghana. The study revealed a significant correlation between socio-economic status and various educational outcomes. Thus, lower SES is consistently associated with lower academic performance, as evidenced by standardized test scores, grades, and overall academic attainment of students.

These studies highlight the ongoing impact of SES on educational attainment, even within the context of policies like FCUBE and FSHS designed to mitigate economic barriers to education.

### **Regional Context and Cultural Factors Affecting SES and Educational Achievement**

The Northern Region of Ghana presents unique socio-economic and cultural challenges that impact educational outcomes. The region's economic conditions, characterized by high levels of poverty and subsistence agriculture, limit access to educational resources and opportunities (Ghana Statistical Service, 2015). Additionally, cultural factors such as early marriage and child labor further hinder academic success (Casely-Hayford & Gharthey, 2007).

Understanding the regional context is essential for addressing educational disparities. Tailored interventions that consider the specific socio-economic and cultural dynamics of the Northern Region are necessary to improve academic performance and promote educational equity. This includes enhancing parental involvement, addressing economic challenges, and leveraging policies like FSHS to support students from disadvantaged backgrounds.

It is therefore mandatory to understand this association for a variety of reasons. Firstly, it assists with focusing on initiatives and strategies for students from lower socioeconomic status families. Secondly, it may underscore the importance of parental involvement and education in promoting student success. Eventually, it will improve the conversation on equality in education and the value of dealing with socio-economic gaps to ensure that all children have an equal chance for success in school.

### **Theoretical Framework**

Theoretical frameworks like Resource Theory and the Family Investment Model help explain these dynamics. The study is therefore grounded on these two theories. Resource Theory suggests that higher SES families can invest more in their children's education, such as providing books, technology, and extracurricular activities, which enhance learning opportunities. The Family Investment Model argues that higher SES parents are more likely to engage in educational activities, like reading to their children and helping with homework, which directly impacts academic performance.

The relationship between socio-economic status (SES) and students' academic success has been widely explored through theoretical frameworks such as Resource Theory and the Family Investment Model. Resource Theory posits that families with higher SES possess greater financial, social, and cultural resources, allowing them to invest more in their children's

education (Bradley & Corwyn, 2002). These investments include access to high-quality learning materials, advanced technology, private tutoring, and enrichment programs such as music or sports, which contribute to cognitive development and overall academic achievement (Conger & Donnellan, 2007). Conversely, children from lower SES backgrounds often experience resource deprivation, limiting their exposure to quality educational materials and opportunities, which can negatively impact their academic outcomes (Sirin, 2005).

Similarly, the Family Investment Model emphasizes the role of parental engagement in shaping children's educational trajectories. Higher SES parents are more likely to create a stimulating home environment by reading to their children, engaging in educational conversations, and assisting with homework, all of which foster cognitive development and academic success (Duncan et al., 1998). This model suggests that financial stability enables parents to dedicate more time and effort to their children's education, while lower SES families may struggle with financial and time constraints that hinder parental involvement (Yeung, Linver, & Brooks-Gunn, 2002). The implications of these theories highlight the disparities in educational outcomes among students from different socio-economic backgrounds, reinforcing the need for targeted interventions to support disadvantaged students.

### Research objectives

The study was guided by these two objectives:

1. To examine how parents' income levels impact students' achievement.
2. To examine how parents' educational background affects children's educational success.

### Research questions

1. What is the relationship between parents' income levels and students' academic success?
2. How does parents' educational background affect their children's educational success?

## METHOD

### Research Design

This study employs a quantitative research approach with a descriptive survey research design to investigate the relationship between the socio-economic status (SES) of parents and the academic performance of senior high school students in selected schools in the Northern Region of Ghana. A descriptive survey design is appropriate for this study because it allows for the collection and analysis of data that describe the characteristics and relationships among various variables within a population (Koh, & Owen, 2000).

### Population and Sample

The study focuses on second-year students from four randomly selected senior high schools in the Northern Region. Out of the 31 senior high schools in the region, these four schools were chosen randomly to ensure a representative sample. The total population of the selected schools is approximately 1,674 students, consisting of 678 males and 996 females. To determine the sample size, the study used Krejcie and Morgan's (1970) sampling formula, which resulted in a sample size of 313 students. This sample size ensures a 95% confidence level with a 5% margin of error, providing reliable and generalizable results.

### Data Collection Instruments

A structured questionnaire was the primary instrument used to collect data from the students. The questionnaire was divided into three main sections:

- I. Demographic Information: This part gathered general details about the pupils, notably their age, gender,



and attended school.

- II. Socio-Economic Status: This section examined the socioeconomic status of the children's parents by examining variables such as parental income, educational attainment, and work status.

**Note:** Parental Income was categorized into three brackets: below 1,000 GHS, between 1,000–2,500 GHS, and above 2,500 GHS.

These income brackets were **self-reported net monthly incomes**, based on parental disclosure during the survey. Students were guided to select the closest matching range if exact figures were not available.

- III. Academic Performance: Data on the academic achievement of the students more especially, their end-of-term exam results in fundamental disciplines like science, English, and mathematics were compiled in this part.

## Instrumentation

A structured questionnaire was developed as the primary data collection instrument. It was divided into three major sections:

### 1. Demographic Information

This section collected background details about the students, including:

- *Sample Item:* "What is your age?" (Open response)
- *Sample Item:* "Select your gender" (Options: Male/Female)

### 2. Socio-Economic Status (SES) of Parents

This section assessed parental SES through three key dimensions:

- **Parental Income** (self-reported net monthly income): Parental Income was categorized into three brackets: below 1,000 GHS, between 1,000–2,500 GHS, and above 2,500 GHS. These income brackets were **self-reported net monthly incomes**, based on parental disclosure during the survey. Students were guided to select the closest matching range if exact figures were not available.
  - *Sample Item:* "What is the combined monthly income of your parents/guardians?" (Options: Below 1,000 GHS / 1,000–2,500 GHS / Above 2,500 GHS)
- **Parental Education:**
  - *Sample Item:* "What is the highest level of education completed by your parents/guardians?" (Options: No formal education / Basic education / Secondary education / Tertiary education)
- **Parental Occupation:**
  - *Sample Item:* "What is the primary occupation of your parents/guardians?" (Options: Farming/Informal sector / Skilled labor/Small business / Professional/Government employee)

### 3. Academic Performance

Students self-reported their most recent scores in three core subjects: Mathematics, English, and Science, cross-verification with school academic records where permitted.

- *Sample Item:* "What was your end-of-term score (%) in Mathematics?"

## Validation of the Questionnaire

The questionnaire items were adapted from previous validated educational studies focusing on socio-economic status and student achievement, including instruments used by:

- Ghulam Rasool Lakhan et al. (2021) for socio-economic factors,



- Kwarteng et al. (2022) for measuring parental education and occupation categories,

Content validity was ensured through expert review by two education researchers familiar with socio-economic research in sub-Saharan Africa. Minor adaptations were made to suit the local context of the Northern Region of Ghana. To ascertain the reliability and accuracy of the questionnaire, A pilot study was performed with 30 students from a school excluded from the primary research. The pilot research comments were utilized to enhance the questionnaire, ensuring it precisely assessed the relevant factors. The reliability of the instrument was evaluated using Cronbach's alpha, which yielded a coefficient of 0.82, indicating a high level of internal consistency and reliability.

### Data Collection Procedure

The data collection process involves the following steps:

1. Permission: Formal permission is obtained from the school authorities to conduct the study.
2. Consent: Informed consent is obtained from the students and their parents or guardians.
3. Administration: The questionnaires are administered to the students during a designated class period.

Trained research assistants are present to provide guidance and ensure that the students understand the questions.

### Data Analysis

Descriptive and inferential statistics were used to examine the gathered data. The demographic traits, SES, and academic performance records of the pupils were compiled using descriptive statistics, frequency distributions, percentages, means, and standard deviations. Making use of inferential statistics, Pearson correlation, and multiple regression models, analyses of the relationships between the parental SES variables income, education, and employment and children's academic success were revealed. Moreover, Analysis of Variance (ANOVA) was used to assess the pupil achievement at different SES levels, therefore highlighting any obvious differences.

### Ethical Considerations

The study adheres to ethical guidelines to protect the rights and well-being of the participants. Key ethical considerations include:

1. Informed Consent: Participants and their parents or guardians are fully informed about the study's purpose, procedures, and potential risks. Written consent is obtained before participation. Consent letters were given to students for onwards submission to parents for their approval.
2. Confidentiality: Participants' responses are kept confidential, and data are anonymized to protect their identities.
3. Voluntary Participation: Participation in the study is voluntary, and students can withdraw at any time without any consequences.

## RESULTS

The results of the current research give a comprehensive analysis of the correlation between the educational performance of students in various senior high schools in the Northern Region of Ghana and parental socioeconomic status (SES). Examining many SES factors such as parental income, education, and work, and relating them to children helps the study highlight the significant impact SES plays in determining educational attainment.



**Table 1.** Demographic characteristics of the sample

Demographic Variable	Frequency	Percentage (%)
Gender		
Male	150	47.9
Female	163	52.1
Age (years)		
Minimum	16	
Maximum	18	
Mean	17.0	

The sample for this research, shown in Table 1, is made up of 313 students, with 47.9% male and 52.1% female participants. The ages of pupils range between 16 and 18 years and the mean age of 17 years. The demographic makeup shows a fair gender ratio, which is typical of Ghanaian seniors in high school. This balance reduces gender bias and helps to analyze factors of socioeconomic level, therefore assuring that the findings may be used for the larger student population in the Northern Region.

### Parental Socio-Economic Status (SES)

**Table 2.** Socio-Economic Status (SES) of Parents

Parental Income		
Income Level (GHS)	Frequency	Percentage (%)
Below 1,000	141	45.0
1,000 - 2,500	109	35.0
Above 2,500	63	20.0
Total	313	100.0
Parental Education		
Education Level	Frequency	Percentage (%)
No Formal Education	125	40.0
Completed Basic Education	109	35.0
Completed Secondary or Higher Edu.	79	25.0
Total	313	100.0
Parental Occupation		
Occupation Type	Frequency	Percentage (%)
Subsistence Farming/Informal Employ.	157	50.0
Skilled Labor/Small Business	94	30.0
Professionals/Government Employees	62	20.0



Occupation Type	Frequency	Percentage (%)
Total	313	100.0

### Parental Income

Table 2 illustrates that a significant proportion of parents earn less than 1,000 GHS per month, accounting for 45%. Meanwhile, 35% of parents fall within the income range of 1,000 to 2,500 GHS, and merely 20% earn above 2,500 GHS. The data illustrates the economic difficulties encountered by numerous families in the Northern Region, which can greatly hinder their capacity to financially support their children's education. Farooq et al. (2011) and Liu et al. (2020) indicate that increased parental income enables families to offer superior educational resources, resulting in improved academic performance. This is consistent with the findings of the current study, which demonstrate a significant relationship between increased parental income and improved academic performance.

### Parental Education

Table 2 reveals that 40% of parents lack formal education, 35% have completed basic education, and only 25% have achieved secondary or higher education. The limited educational background of parents in the region plays an integral part in influencing students' academic outcomes. Farooq et al. (2011) discovered that the level of parental education significantly impacts students' academic performance, as parents with higher education are more equipped to assist their children's educational journey. This aligns with the current investigation, which demonstrates a positive relationship between parental education and educational achievement.

### Parental Occupation

Table 2 suggests that 50% of parents participate in subsistence farming or informal employment, 30% are involved in skilled labor or small businesses, and 20% hold positions as professionals or government employees. The prevalence of informal employment highlights the economic difficulties faced in the Northern Region. Watkins & Howard (2015) found that students whose parents held stable professions, like government jobs, generally achieved better results in school, as these parents were able to offer more consistent support. The results of this study indicate that the occupation of parents plays a crucial role in student performance, with those employed in professional and government sectors frequently associated with improved academic results.

### Academic Performance of Students

**Table 3.** Academic performance of students

Subject	Mean (M)	Standard Deviation (SD)
Mathematics	55.3	12.5
English	58.1	13.2
Science	57.0	12.9

In Table 3, the educational achievement of students throughout core subjects is presented, showing mean scores of 55.3 in Mathematics, 58.1 in English, and 57.0 in Science. These scores indicate that students are performing at a moderate level, with variability evident in the standard deviations (SDs ranging from 12.5 to 13.2). This variability in performance is consistent with findings from Hancock et al. (2018), which highlight the major impact of socioeconomic

status on academic success, suggesting that students from higher SES backgrounds tend to perform better due to improved access to resources and a more supportive learning environment.

**Table 4.** Academic Performance by SES Level

SES Level	Mathematics (M)	English (M)	Science (M)
High	65.4	68.5	66.7
Medium	58.3	60.4	60.1
Low	48.1	49.8	49.2

As seen in Table 4 students hailing from high socioeconomic status families consistently achieve better results than their counterparts from medium and low socioeconomic status backgrounds in every subject area. For example, students from high socioeconomic status achieve average scores of 65.4 in Mathematics, 68.5 in English, and 66.7 in Science. In contrast, students from low socioeconomic status have scores of 48.1, 49.8, and 49.2 in the same subjects, respectively. The results support the conclusions drawn by Oduro-Ofori et al. (2023) and Owusu (2024), indicating that students from families with higher socioeconomic status consistently attain superior academic performance, attributed to enhanced access to resources and increased parental engagement. The evident differences in performance among various SES levels highlight the significance of SES as a factor influencing academic achievement.

**Correlation Between Parental SES and Academic Performance**

**Table 5.** Pearson correlation between parental ses variables and academic performance

Variable	1	2	3
1. Parental Income	-	0.62	0.57
2. Parental Education	0.62	-	0.49
3. Parental Occupation	0.57	0.49	-
4. Academic Performance	0.62	0.57	0.49

Note:  $p < 0.01$

The Pearson correlation analysis exhibited in Table 5 indicates robust positive associations between parental SES factors (income, education, and occupation) and students' academic performance. The analysis reveals a strong to moderate positive correlations between academic outcomes and various parental factors: parental income ( $r = 0.62$ ), parental education ( $r = 0.57$ ), and parental occupation ( $r = 0.49$ ). The results are consistent with international studies, such as those conducted by Oduro-Ofori et al. (2023), which also demonstrated a positive relationship between higher parental SES and enhanced academic performance. The significant link between parental income and academic performance highlights how financial stability can enhance the educational resources available to children.

**Predictors of Academic Performance**

**Table 6.** Multiple regression analysis predicting academic performance

Model Summary	
Model	1
R	.648



Model Summary				
R Square	.420			
Adjusted R Square	.416			
Std. Error of the Estimate	8.24			
Coefficients				
	B	Std. Error	Beta	Sig.
(Constant)	30.12	2.45		.000
Parental Income	0.41	0.05	0.41	.000
Parental Education	0.35	0.04	0.35	.000
Parental Occupation	0.28	0.07	0.28	.001

The multiple regression analysis in Table 6 shows that parental SES explains 42% of the variance in academic performance ( $R^2 = 0.420$ ), highlighting that SES plays a crucial role in predicting academic success. The analysis indicates that parental income is the most significant predictor ( $\beta = 0.41$ ,  $p = 0.000$ ), with parental education following closely ( $\beta = 0.35$ ,  $p = 0.000$ ), and parental occupation also playing a notable role ( $\beta = 0.28$ ,  $p = 0.001$ ). The findings align with the Family Investment Model, indicating that families with greater socioeconomic status can allocate more resources toward their children's education, resulting in improved academic performance. Sirin (2005) also discovered that the education and occupation of parents play a vital role in influencing students' academic achievements, as parents with higher education levels tend to engage more in their children's educational journeys.

#### Differences in Academic Performance Across SES Levels

**Table 7.** Analysis of variance (ANOVA) for academic performance across SES levels.

Source of Variation	A sum of Squares (SS)	df	Mean Square (MS)	F	Sig.
Between Groups	8280.45	2	4140.23	35.89	.000
Within Groups	1006.55	310	3.24		
Total	9287.00	312			
Post Hoc Test: Tukey HSD					
Comparison	Mean Difference	Std. Error	Sig.		
High SES vs. Medium SES	7.5	1.2	.000		
High SES vs. Low SES	16.3	1.3	.000		
Medium SES vs. Low SES	8.8	1.1	.000		

The ANOVA results presented in Table 7 indicate notable variations in academic performance among different SES levels ( $F = 35.89$ ,  $p = 0.000$ ). The post hoc Tukey HSD test indicates that students from high SES backgrounds

significantly surpass their peers from medium and low SES backgrounds. In terms of general learning achievement, high SES students score 16.3 points better than low SES students and an average mark that is 7.5 points more than that of the medium SES students. The results highlight the continuous academic disparities linked to socioeconomic level, thereby reflecting the findings made by Kushwaha & Ahmad, (2024), who noted similar performance discrepancies concerning SES in primary schools all throughout Ghana.

## DISCUSSION

The findings of this study provide robust evidence supporting the extensive literature on the relationship between socio-economic status (SES) and academic achievement. Students from higher SES backgrounds consistently achieved better academic outcomes across core subjects compared to their peers from lower SES backgrounds. This pattern underscores the critical role that socio-economic factors play in shaping educational success. These results are consistent with previous studies by Ansong and Chowa (2019) and Adzido et al. (2016), who observed that elevated SES allows parents to offer their children superior educational resources, increased support, and more favorable learning environments. As reflected in the present study, these advantages significantly contribute to improved academic performance.

On the other hand, students from lower SES backgrounds frequently encounter substantial obstacles that impede their educational progress. Limited access to academic resources, reduced parental involvement, and unfavorable home learning environments are recurring challenges. These findings align with those of Bora and Ahmed (2018) and Al-Matalaka (2014), who similarly identified the adverse effects of low SES on student achievement. The current study's correlation and regression analyses further demonstrate the critical influence of parental income, education, and occupation on students' academic outcomes, affirming the enduring impact of socio-economic disparities on educational attainment.

The theoretical frameworks guiding this study, namely Resource Theory and the Family Investment Model, offer a compelling explanation for the observed relationships. Resource Theory posits that families with higher socio-economic standing possess greater financial, social, and cultural capital to invest in their children's education. This is clearly supported by the findings, where parental income showed a strong positive correlation with academic performance. Similarly, the Family Investment Model emphasizes that parents with higher SES are more likely to engage in enriching educational activities such as providing reading materials, homework support, and extracurricular learning opportunities. The multiple regression results, which highlight parental income and education as significant predictors of student performance, directly align with this theoretical perspective.

The findings are also in agreement with international studies. Nja et al. (2022) and Liu et al. (2020) observed similar patterns across different educational systems, where parental SES consistently emerged as a key determinant of student success. Such consistency across national and international contexts reinforces the generalizability of the theoretical explanations and underscores the urgency of addressing SES disparities in education systems globally.

In the context of Ghana, and particularly the Northern Region, the study's findings carry significant policy implications. Although the introduction of the Free Senior High School (FSHS) initiative has improved access to secondary education, persistent disparities in academic performance suggest that access alone is insufficient to close the achievement gap. Targeted interventions are necessary to support students from disadvantaged backgrounds more effectively. Such strategies may include enhancing parental involvement through community-based education programs, providing additional academic resources and remedial support for low-SES students, and addressing broader structural inequalities through socio-economic development initiatives.



Overall, the study affirms that achieving true educational equity requires more than just expanding access; it demands intentional efforts to address the underlying socio-economic barriers that continue to hinder student achievement. Future policies must therefore be holistic, integrating both educational reforms and broader social interventions to ensure that all students, regardless of background, have the opportunity to succeed academically.

## CONCLUSION

This study shows an important correlation between students' academic performance in a few senior high schools in the northern part of Ghana and parents' socioeconomic level (SES). The results show that children educational results are directly influenced by parental wealth, education, and employment. Higher SES background students routinely score better academically because of improved access to educational resources, encouraging learning settings, and active parental participation (Farooq et al., 2011). On the other hand, children from lower SES backgrounds suffer substantial challenges that affect their academic performance including poor educational assistance, financial limitations, and inadequate access to study resources (Msangi, 2017).

Although initiatives such as Free Senior High School (FSHS) have enhanced educational opportunities, socioeconomic inequalities still influence student advancement. Studies point to issues like congestion, poor infrastructure, and unequal resource distribution even if FSHS has raised enrolment (Boateng et al., 2021). These results highlight the importance of targeted programs to close the performance difference and guarantee that every student, from all backgrounds, has equal chances for academic achievement.

Targeted interventions at several levels are required to remove the socioeconomic barriers influencing children's academic progress. These suggestions center on legislation, school-based projects, and community-driven methods meant to lessen the harmful consequences of socioeconomic differences.

## Recommendations

Based on the findings of this study, it is evident that parental socio-economic status significantly affects the academic performance of senior high school students in the Northern Region of Ghana. Therefore, targeted interventions are crucial to mitigate the adverse effects of low SES on educational outcomes. First, it is recommended that the Ghanaian government, through the Ministry of Education, strengthen existing support programs by introducing scholarship and bursary schemes specifically aimed at students from low-income households. These programs should not only cover tuition but also support ancillary costs such as textbooks, uniforms, transportation, and extracurricular learning opportunities, which are often overlooked but essential for full academic participation.

Secondly, community-based parental education initiatives should be expanded. Schools, in collaboration with NGOs and local authorities, can organize workshops to educate parents particularly those with low formal education on how to support their children's learning at home. This approach would enhance parental involvement, a key component emphasized in the Family Investment Model, thereby fostering a more supportive home learning environment even among economically disadvantaged families.

Third, the government and development partners should promote conditional cash transfer (CCT) programs. Ghana's own LEAP (Livelihood Empowerment Against Poverty) program provide financial incentives to low-income families and should be contingent on school attendance and academic progress, thereby directly linking socio-economic support to educational engagement and achievement.

Moreover, there is a need for the establishment of learning resource centers within disadvantaged communities. These centers would offer access to internet services, libraries, tutoring programs, and after-school academic support for students who may lack conducive study environments at home. This would help bridge the resource gap between students from high and low SES backgrounds.

Finally, long-term socio-economic development initiatives must be integrated into education policy planning. Addressing systemic poverty, improving rural employment opportunities, and expanding adult literacy programs will indirectly enhance the educational outcomes of future generations. Policymakers must recognize that promoting educational equity goes hand-in-hand with broader socio-economic reforms.

In summary, creating an equitable educational system requires a multifaceted approach that targets both immediate educational support and long-term socio-economic transformation. Only through comprehensive and sustained interventions can the gap in academic achievement between high and low SES students be effectively closed.

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