

**Socio-Economic Factors and Academic Achievement of Secondary School Students in
Ibadan, Oyo State**

By

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Abstract

Academic achievement among secondary school students is shaped by multiple socio-economic and environmental factors, yet disparities in performance continue to challenge educational stakeholders. Socio-economic status, parental education level, and the home study environment have been identified as critical determinants of learning outcomes, but their relative influence in the Nigerian context remains underexplored. This study aimed to examine the relationships, joint contributions, and relative effects of these variables on academic achievement in Ibadan, Oyo State. A descriptive survey design was employed, with three Local Government Areas Ibadan North, Ibadan South-West, and Egbeda, randomly selected. One public secondary school was chosen from each LGA, and 50 Senior Secondary School Two students were randomly drawn from each school, resulting in a total sample of 150 participants. Standardised instruments were used to assess socio-economic status, parental education, and home study environment, while academic achievement was measured using students' most recent term examination scores. Ethical procedures, including informed consent and confidentiality, were strictly observed. Data were analysed using Pearson correlation and multiple regression techniques. Findings revealed significant positive relationships between socio-economic status, parental education level, home study environment, and academic achievement, with the home study environment exhibiting the strongest correlation ($r = 0.524$, $p < 0.05$). The combined model was significant ($R^2 = 0.374$, $F = 28.97$, $p < 0.05$), indicating that the three variables jointly explained 37.4% of the variance in academic performance. Home study environment contributed most strongly, followed by socio-economic status and parental education. The study concluded that socio-economic status, parental education, and home study environment are significant predictors of academic achievement, with the quality of the home learning environment being particularly influential. It is recommended that educational interventions focus on enhancing home study conditions, providing socio-economic support to families, and promoting parental engagement in education to improve student performance.

Keywords: Academic achievement, socio-economic status, parental education, home study environment

Introduction

Academic achievement remains a key indicator of educational success and a determinant of future socio-economic opportunities for young people. In developing nations such as Nigeria, students' educational outcomes are often shaped by both personal and environmental factors, with socio-economic conditions playing a particularly influential role (Akinyemi et al., 2018). Scholars have consistently argued that disparities in family resources, parental education, and

home environments translate into unequal access to learning opportunities, ultimately affecting students' ability to perform academically (Fehintola & Akinyemi, 2022). Globally, socioeconomic inequality has been linked to achievement gaps, as seen in studies across the United States, South Africa, and India, where children from less privileged households struggle to meet educational benchmarks compared to their peers from affluent backgrounds (Sirin, 2005; Spaul, 2019; Singh & Bangay, 2014).

In the Nigerian context, socio-economic status (SES) encompasses income levels, parental occupations, and access to educational resources, all of which contribute to disparities in academic outcomes (Akinyemi et al., 2018). Previous studies have demonstrated that students from higher SES backgrounds often benefit from quality schools, extracurricular support, and access to learning materials, while those from lower SES families face financial strain and inadequate educational support (Fehintola & Akinyemi, 2021). Parental educational attainment has also been highlighted as a critical determinant of student achievement, since parents with higher education levels are more likely to value formal schooling and provide academic guidance (Aremu & Akinyemi, 2019). Similar findings have been reported in Ghana and Kenya, where parental education strongly predicted secondary school performance and resilience among students from disadvantaged communities (Darteh et al., 2017; Mwanja, 2018).

The home study environment, an often overlooked variable, plays a complementary role in shaping learning outcomes. A structured, supportive, and resourceful study environment fosters effective learning habits and academic persistence, whereas environments characterised by noise, distractions, or lack of study materials hinder concentration and learning (Fehintola & Akinyemi, 2021). International research underscores this dynamic: studies in the United Kingdom and China confirm that a positive home learning environment significantly predicts literacy and numeracy development, especially during adolescence (Melhuish et al., 2017; Zhang et al., 2020). Nigerian evidence aligns with these findings, where children in homes with limited educational resources or exposure to parental neglect displayed weaker academic engagement and achievement (Omopo, 2025; Ibrahim et al., 2024).

Psychosocial and behavioural influences further compound these challenges. Peer dynamics and social support are known to shape academic motivation, with supportive peer environments enhancing resilience and performance (Aremu & Akinyemi, 2019; Akinyemi et al., 2018).

Conversely, negative peer influence may push adolescents toward maladaptive behaviours such as substance use, which further undermines academic commitment (Quadri et al., 2025; Adebayo-Oke et al., 2021). Evidence from Omopo (2024) highlights the role of cognitive and emotional regulation in mitigating risk behaviours that compromise school performance, while studies in Ibadan specifically demonstrated that interventions like mindfulness and cognitive training can enhance attention and academic focus among secondary students (Fehintola & Akinyemi, 2021). Similar trends have been documented in South Africa and Botswana, where adolescent exposure to peer pressure and risky behaviours correlated with low educational persistence (Motsa & Morojele, 2018; Pheko & Molefhe, 2017).

The interaction between socio-economic background and psychological wellbeing has also been documented in Nigerian research. Akinyemi and Aremu (2018) showed that solution-focused therapy improved coping with psychological distress among newly diagnosed HIV patients, underscoring how interventions addressing wellbeing can indirectly strengthen resilience in educational contexts. More recently, studies have explored the effects of trauma, peer pressure, and emotion regulation on adolescent mental health, finding strong links with academic persistence and school engagement (Omopo, 2025; Quadri et al., 2025). These findings align with global evidence from the World Bank and UNESCO, which argue that addressing psychosocial barriers is crucial to bridging achievement gaps in low- and middle-income countries (UNESCO, 2021; World Bank, 2020).

Despite growing evidence, gaps remain in understanding how socio-economic status, parental education, and home study environment jointly predict academic achievement among secondary school students in Ibadan, Oyo State. While individual studies have examined each variable in isolation, few have combined them to explain variations in student outcomes within the same socio-cultural setting. Moreover, although international studies confirm these predictors' relevance, contextual differences necessitate localised investigation to better inform Nigerian educational policy and intervention strategies. This study therefore aims to examine how socio-economic factors, parental education, and home study environments influence academic achievement among secondary school students in Ibadan, Oyo State, thereby contributing both to Nigerian scholarship and the global discourse on educational equity.

Purpose of the Study

The purpose of this study is to investigate the influence of socio-economic factors, particularly socio-economic status, parental education level, and the home study environment, on the academic achievement of secondary school students in Ibadan, Oyo State. It seeks to examine both the individual and combined effects of these factors, thereby providing evidence-based insights to guide educational policy and intervention strategies. The specific objectives of the study are the following:

1. To examine the relationship between socio-economic status, parental education level, home study environment, and the academic achievement of secondary school students in Ibadan.
2. To determine the joint contributions of socio-economic status, parental education level, and home study environment to the academic achievement of secondary school students.
3. To assess the relative contributions of socio-economic status, parental education level, and home study environment to the academic achievement of secondary school students.

Hypotheses

The following hypotheses were tested at 0/05 level of significance:

1. There is no significant relationship between socio-economic status, parental education level, home study environment, and the academic achievement of secondary school students in Ibadan.
2. There is no significant joint contribution of socio-economic status, parental education level, and home study environment to the academic achievement of secondary school students in Ibadan.
3. There is no significant relative contribution of socio-economic status, parental education level, and home study environment to the academic achievement of secondary school students in Ibadan.

Methods

This study employed a descriptive survey research design to examine the influence of socio-economic status, parental education level, and home study environment on the academic

achievement of secondary school students in Ibadan, Oyo State. Three Local Government Areas (LGAs) - Ibadan North, Ibadan South-West, and Egbeda were randomly selected from the eleven LGAs to ensure broad representation of the city's socio-cultural diversity. From each of the chosen LGAs, one public secondary school was randomly selected, and within each school, 50 students in Senior Secondary School Two (SSS2) were drawn using simple random sampling, yielding a total sample size of 150. The choice of SSS2 students was deliberate, as they are at a critical stage of secondary education where they have gained adequate exposure to academic demands but are not yet burdened with final-year external examinations. This provided a stable and reliable group for assessing the predictors of academic achievement.

Standardised instruments were used for data collection to ensure validity and reliability. Socio-economic status was measured with a modified version of the Socio-Economic Status Scale, capturing family income, parental occupation, and household resources, while parental education level was assessed through demographic items recording the highest level of education attained by parents. The home study environment was evaluated using the Home Environment Questionnaire, which considers study space, access to learning materials, and family support for academic work. Academic achievement was operationalised through students' most recent term examination scores, obtained directly from school records to avoid self-report bias. Approval was sought from the relevant authorities, with permission from school principals. Data were analysed using Pearson correlation to test relationships and multiple regression analysis to determine both joint and relative contributions of the independent variables to academic achievement.

Result and Discussions

Table 1: Demographic Characteristics of Participants

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	78	52.0
	Female	72	48.0
Age Range (Years)	14–15	42	28.0
	16–17	83	55.3
	18 and above	25	16.7

Local Government Area	Ibadan North	50	33.3
	Ibadan South-West	50	33.3
	Egbeda	50	33.3
Parental Education	No formal education	12	8.0
	Primary education	28	18.7
	Secondary education	56	37.3
	Tertiary education	54	36.0

Table 1 presents the demographic characteristics of the participants. Out of the 150 students surveyed, 78 (52.0%) were male and 72 (48.0%) were female, showing a relatively balanced gender distribution. The majority of students (55.3%) were aged between 16 and 17 years, while 28.0% were between 14 and 15 years, and 16.7% were 18 years and above. Each of the three Local Government Areas - Ibadan North, Ibadan South-West, and Egbeda contributed 50 participants, reflecting equal representation across the sampled schools. In terms of parental education, 37.3% of the participants' parents had attained secondary education, while 36.0% had tertiary education, 18.7% had primary education, and only 8.0% reported no formal education. These figures indicate that most of the participants came from families with at least basic educational exposure, which is an important variable in assessing the influence of parental education on students' academic achievement.

Hypothesis Testing

Hypothesis 1

There is no significant relationship between socio-economic status, parental education level, home study environment, and the academic achievement of secondary school students in Ibadan.

Table 2: Pearson Correlation between Independent Variables and Academic Achievement (N = 150)

Variable	Academic Achievement (r)	p-value
Socio-Economic Status	0.462	0.001*
Parental Education Level	0.398	0.001*
Home Study Environment	0.524	0.001*

*Significant at $p < 0.05$

Table 2 shows the Pearson correlation coefficients between socio-economic status, parental education level, home study environment, and academic achievement. Results indicate positive

and statistically significant relationships for all three variables. Socio-economic status ($r = 0.462$, $p < 0.05$), parental education level ($r = 0.398$, $p < 0.05$), and home study environment ($r = 0.524$, $p < 0.05$) were all positively associated with students' academic achievement. This suggests that higher family income, higher parental education, and a more conducive home study environment are each linked to better academic performance. Consequently, the null hypothesis is rejected.

The findings indicate a significant positive relationship between socio-economic status (SES) and academic achievement among secondary school students in Ibadan ($r = 0.462$, $p < 0.05$). This suggests that students from families with higher income and more stable occupational backgrounds tend to perform better academically. International studies consistently support this relationship; Sirin (2005) demonstrated that higher SES enhances access to educational opportunities, learning resources, and extracurricular activities, which in turn improve academic outcomes. Spaul (2019) similarly reported that in South Africa, students from wealthier families benefit from better-resourced schools, resulting in higher academic performance. SES influences cognitive stimulation at home, access to educational technology, and nutritional support, all of which are critical to learning and explain why students from higher SES backgrounds achieve better academically.

Parental education level also showed a significant positive relationship with academic achievement ($r = 0.398$, $p < 0.05$), indicating that students whose parents have higher educational attainment tend to perform better in school. International research highlights that educated parents are more likely to foster learning-oriented home environments, model effective study behaviours, and provide academic guidance (Darteh et al., 2017; Mwanja, 2018). These factors enhance motivation, engagement, and resilience in students, which are essential for academic success. Even in different socio-cultural contexts, such as Ghana and Kenya, parental education consistently predicts children's academic performance, suggesting that parental influence on learning transcends national boundaries.

The home study environment emerged as the strongest correlate of academic achievement ($r = 0.524$, $p < 0.05$), demonstrating that a structured, resourceful, and supportive home environment significantly enhances learning outcomes. International studies have repeatedly shown that homes with dedicated study spaces, learning materials, and minimal distractions promote higher

literacy and numeracy scores (Melhuish et al., 2017; Zhang et al., 2020). The quality of the home learning environment shapes students' study habits, concentration, and persistence, explaining its relatively stronger association with academic performance compared to SES and parental education.

In summary, the findings demonstrate that socio-economic status, parental education, and home study environment each significantly influence academic achievement. International evidence underscores that these variables collectively contribute to students' learning outcomes across diverse settings, suggesting that interventions aimed at improving educational performance should address both material resources and the quality of the learning environment to maximise academic potential (Sirin, 2005; Melhuish et al., 2017; Zhang et al., 2020).

Hypothesis 2

There is no significant joint contribution of socio-economic status, parental education level, and home study environment to the academic achievement of secondary school students in Ibadan.

Table 3: Multiple Regression Analysis of the Joint Contribution of Independent Variables on Academic Achievement

Model	R	R ²	Adjusted R ²	F	p-value
SES + Parental Education + Home Environment	0.612	0.374	0.361	28.97*	0.001*

*Significant at $p < 0.05$

Table 3 presents the results of the multiple regression analysis examining the joint contribution of socio-economic status, parental education level, and home study environment on academic achievement. The combined model was significant ($F = 28.97$, $p < 0.05$), with $R^2 = 0.374$ and adjusted $R^2 = 0.361$. This indicates that together, the three independent variables explained approximately 37.4% of the variance in students' academic achievement. The findings show that socio-economic factors, parental education, and home study conditions collectively play a substantial role in predicting academic performance. Hence, the null hypothesis is rejected.

The multiple regression results indicate that socio-economic status, parental education level, and home study environment jointly predict academic achievement, explaining 37.4% of the variance ($R^2 = 0.374$, $F = 28.97$, $p < 0.05$). This finding suggests that these factors operate in an interrelated manner to influence students' performance. Socio-economic status provides material and financial resources that allow access to educational materials, extracurricular learning opportunities, and supportive services. Parental education complements this by promoting cognitive stimulation, fostering positive attitudes toward learning, and modelling effective study behaviours. Meanwhile, the home study environment offers a structured setting that facilitates concentration, self-regulation, and routine academic engagement.

The combined effect of these variables reflects their interconnected influence. International literature highlights similar patterns: Zhang et al. (2020) found that students' home learning environments and parental educational support jointly predicted academic outcomes in China. Sirin (2005) reported that socio-economic resources and parental education together accounted for substantial variance in children's school performance across multiple countries. Similarly, Melhuish et al. (2017) emphasised that the interplay between family resources, parental involvement, and the learning environment is critical to cognitive and academic development. These findings suggest that interventions targeting a single factor, such as improving family income or parental education alone, may be less effective than comprehensive approaches that simultaneously address material resources, parental engagement, and home learning conditions. Consequently, the rejection of the null hypothesis confirms that the independent variables collectively exert a significant influence on students' academic achievement.

Hypothesis 3

There is no significant relative contribution of socio-economic status, parental education level, and home study environment to the academic achievement of secondary school students in Ibadan.

Table 4: Relative Contribution of Independent Variables to Academic Achievement

Predictor Variable	B	β	t	p-value
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Socio-Economic Status	0.298	0.321	4.56*	0.001*
Parental Education Level	0.211	0.234	3.29*	0.001*
Home Study Environment	0.347	0.368	5.21*	0.001*

*Significant at $p < 0.05$

Table 4 shows the relative contribution of each independent variable to academic achievement. Home study environment made the largest unique contribution ($\beta = 0.368$, $p < 0.05$), followed by socio-economic status ($\beta = 0.321$, $p < 0.05$) and parental education level ($\beta = 0.234$, $p < 0.05$). These results indicate that while all three predictors significantly influence academic achievement, the quality of the home study environment is the most influential factor. The null hypothesis is therefore rejected, confirming that each variable individually contributes to students' academic outcomes.

The results in Table 4 indicate that the home study environment made the largest unique contribution to academic achievement ($\beta = 0.368$, $p < 0.05$), followed by socio-economic status ($\beta = 0.321$, $p < 0.05$), and parental education level ($\beta = 0.234$, $p < 0.05$). This order of relative contribution suggests that while all three factors are important, the immediate learning environment at home exerts the strongest influence on students' performance. A supportive home environment provides a dedicated study space, access to learning materials, and minimal distractions, all of which directly facilitate concentration, self-regulation, and effective learning. International studies confirm this pattern: Zhang et al. (2020) found that home learning conditions significantly predict academic outcomes in adolescence, while Melhuish et al. (2017) highlighted that the availability of resources and structured routines at home is more influential than broader family socio-economic factors in determining cognitive and educational outcomes.

Socio-economic status, which ranked second, remains a critical determinant because it shapes access to school fees, learning materials, tutoring, and other educational resources. Sirin (2005) emphasised that families with higher income can provide material and psychosocial support, enabling children to take full advantage of educational opportunities. Parental education, while contributing least in relative terms, still significantly predicts academic achievement by influencing attitudes toward schooling, parental guidance, and intellectual stimulation within the household (Darteh et al., 2017; Mwanja, 2018). The findings suggest that interventions to improve academic outcomes should prioritise enhancing the quality of the home study

environment while also supporting socio-economic improvements and promoting parental engagement in education. The rejection of the null hypothesis confirms that each factor individually plays a significant role, but their effectiveness is moderated by the degree to which the home environment supports learning.

Conclusion

This study examined the influence of socio-economic status, parental education level, and home study environment on the academic achievement of secondary school students in Ibadan, Oyo State. The findings indicate that all three independent variables are positively and significantly related to students' academic performance. The home study environment emerged as the most influential factor, followed by socio-economic status and parental education level. Collectively, these variables explained a substantial proportion of variance in academic achievement, highlighting the interconnected role of material resources, parental support, and conducive learning conditions. These results underscore the importance of both structural and psychosocial factors in shaping educational outcomes and suggest that enhancing students' academic performance requires a holistic approach that addresses the family and home learning context.

Recommendations

The following recommendations were made:

1. **Improvement of Home Learning Environments:** Educational stakeholders, including parents and policymakers, should prioritise creating structured, resource-rich, and supportive home study environments. Provision of dedicated study spaces, learning materials, and a quiet environment can significantly enhance students' concentration and academic performance.
2. **Socio-Economic Support Programmes:** Government and community-based organisations should implement interventions aimed at alleviating financial constraints among families, such as scholarships, school grants, and access to educational resources. Enhancing family socio-economic status can provide students with better access to learning materials, extracurricular opportunities, and overall support for schooling.
3. **Parental Education and Engagement:** Initiatives to increase parental awareness of the importance of education, including workshops or community programmes, could

improve parental involvement and guidance. Educated and engaged parents are more likely to provide academic support, encourage positive study habits, and reinforce the value of education at home.

4. **Integrated Policy Approaches:** Policymakers should consider strategies that simultaneously address socio-economic disparities, parental engagement, and home study conditions. Holistic interventions that combine financial support, educational programmes for parents, and initiatives to improve the home learning environment are likely to yield the greatest improvement in student academic outcomes.

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