

RELATIONSHIP BETWEEN PARENT RELATED VARIABLES AND PERFORMANCE OF SENIOR SECONDARY SCHOOL STUDENTS IN ADAMAWA STATE, NIGERIA

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Abstract

This study examined the relationship between parent-related variables and the academic performance of senior secondary school students in Adamawa State, Nigeria. Specifically, the study investigated the relationship between parental socio-economic status, parental gender, and students' academic performance. A correlational research design was adopted. The study was conducted among Senior Secondary II (SS II) students in selected public secondary schools across the three educational zones of Adamawa State. A sample of 376 students was selected using a multistage sampling procedure involving purposive, stratified, and simple random sampling techniques. Data were collected using a structured questionnaire titled Parent-Related Variables Questionnaire (PRVQ), while students' academic performance was obtained from school academic records. The instrument was validated by experts, and its reliability was established using the Cronbach Alpha method, yielding a reliability coefficient of 0.88. Data were analyzed using Pearson Product Moment Correlation (PPMC) and simple linear regression at the 0.05 level of significance. The findings revealed a significant positive relationship between parental socio-economic status and students' academic performance ($r = 0.816, p < 0.05$). The study also found a significant positive relationship between parental gender and students' academic performance ($r = 0.819, p < 0.05$). The study concluded that parent-related variables significantly influence the academic performance of senior secondary school students in Adamawa State. It was therefore recommended that governments and educational stakeholders strengthen support programmes for students from low socio-economic backgrounds and encourage the active involvement of both fathers and mothers in their children's education through school-based sensitization programmes and Parent-Teacher Association (PTA) activities.

Keywords: Parent-related variables, parental socio-economic status, parental gender, academic performance, Nigeria.

ADVANCING KNOWLEDGE
• IMPACTING SOCIETY •

Introduction

Academic performance is a key indicator of students' educational progress, learning outcomes, and the quality of schooling, commonly assessed through test scores, grades, classroom assessments, and internal and external examinations. It is influenced by multiple school-, student-, and home-based factors, with parent-related variables receiving considerable attention because the home provides the first learning environment that shapes children's educational development before formal schooling. Evidence suggests that experiences within the home have lasting effects on students' academic engagement and achievement (Cui & Liu, 2024; UNESCO, 2023). Parent-related variables including socio-economic status, educational background, occupation, family structure, parental involvement, parenting style, residential location, and parental gender roles—determine the resources, support, supervision, and learning opportunities available to children, thereby influencing their attitudes toward learning, school attendance, motivation, study habits, and overall academic performance across diverse educational contexts (Epstein, 2018; Zhang et al., 2024).

Parental socio-economic status is one of the most significant parent-related factors influencing students' academic performance, as it reflects parents' income, occupation, educational attainment, and access to resources that determine the quality of educational support available to their children. Higher socio-economic status enables parents to provide essential learning resources, conducive study environments, and academic support, thereby enhancing students' educational opportunities and achievement, while lower socio-economic status often limits access to these resources and creates challenges that hinder academic success (OECD, 2023; Zhang et al., 2021). Evidence from international and Nigerian studies consistently identifies parental socio-economic status as a strong predictor of academic performance, with students from higher socio-economic backgrounds generally outperforming those from disadvantaged households due to better learning resources, parental support, and stable home environments (World Bank, 2024; Sirin, 2005).

Parental gender is an important parent-related variable that encompasses the distinct yet complementary roles of fathers and mothers in supporting children's academic development. Fathers are often associated with financial provision, discipline, educational decision-making, and long-term planning, while mothers typically provide homework supervision, emotional support, school attendance monitoring, and communication with teachers. The active involvement of both parents enhances students' motivation, confidence, discipline, school engagement, and overall academic performance, whereas the absence or weakness of either role may reduce educational support and negatively affect learning outcomes (Cui & Liu, 2024; Epstein, 2018). Research further indicates that maternal involvement is closely linked to daily learning routines and emotional encouragement, while paternal involvement promotes academic discipline, educational aspirations, and financial support, making parental gender an important factor in explaining

students' academic performance, particularly in societies with well-defined gender roles (Cui & Liu, 2025; Epstein, 2018).

The academic performance of secondary school students in Nigeria remains a major concern due to persistent disparities in achievement across schools and regions. Although school-related factors have received considerable attention, growing evidence indicates that parent-related variables, including family economic conditions, parental roles, and residential location, significantly influence students' access to learning resources, educational support, and conducive home environments, thereby contributing to variations in academic performance (Federal Ministry of Education, 2023; World Bank, 2024). In Adamawa State, differences in socio-economic conditions, family structures, and rural–urban settings further shape students' educational experiences, with some benefiting from strong parental support and others facing challenges associated with poverty, limited parental involvement, and inadequate learning opportunities (Adamawa State Ministry of Education, 2024; UNESCO, 2023). Despite increasing research on family influence, few empirical studies have jointly examined the relationship between parental socio-economic status, parental gender, and the academic performance of senior secondary school students in Adamawa State, creating a knowledge gap that this study seeks to address. The study therefore investigates these parent-related variables to provide evidence that can inform parents, educators, school administrators, and policy-makers on improving students' academic outcomes in the state (Zhang et al., 2021; Sirin, 2005).

Statement of the Problem

Academic performance among senior secondary school students in Nigeria remains a major concern due to persistent poor achievement in internal and external examinations despite educational reforms, with growing evidence indicating that home and family factors, in addition to school-based factors, significantly influence students' learning outcomes (WAEC, 2023; UNICEF, 2024). Parent-related variables, particularly parental socio-economic status, parental gender, and parents' residential location, shape students' access to educational resources, academic support, motivation, supervision, and learning opportunities, thereby contributing to differences in academic performance (Davis-Kean et al., 2021; Sengönül, 2022). In Adamawa State, variations in socio-economic conditions, family backgrounds, and rural–urban settings may further affect the level of educational support available to students, yet there is limited empirical evidence examining the combined relationship of these parent-related variables with the academic performance of senior secondary school students in the state (NBS, 2023; Federal Ministry of Education, 2023). Consequently, this study investigates the relationship between parental socio-economic status, parental gender, and students' academic performance to provide empirical evidence that can inform strategies for strengthening family-based support and improving educational outcomes (Sirin, 2005; Sengönül, 2022; UNICEF, 2024).

Objectives of the Study

The main objective of this study is to examine the relationship between parent-related variables and academic performance of senior secondary school students in Adamawa State, Nigeria. The specific objectives are to:

1. determine the relationship between parental socio-economic status and academic performance of senior secondary school students in Adamawa State, Nigeria.
2. examine the relationship between parental gender and academic performance of senior secondary school students in Adamawa State, Nigeria.

Research Questions

The following research questions guided the study:

1. What is the relationship between parental socio-economic status and academic performance of senior secondary school students in Adamawa State, Nigeria?
2. What is the relationship between parental gender and academic performance of senior secondary school students in Adamawa State, Nigeria?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

H₀₁: There is no significant relationship between parental socio-economic status and academic performance of senior secondary school students in Adamawa State, Nigeria.

H₀₂: There is no significant relationship between parental gender and academic performance of senior secondary school students in Adamawa State, Nigeria.

Literature Review

Parental Socio-Economic Status and Academic Performance

Parental socio-economic status (SES) is widely recognized as one of the most influential determinants of students' academic performance. It refers to the social and economic position of parents as reflected by their income, occupation, educational attainment, and access to material and educational resources. These indicators determine parents' ability to provide school fees, textbooks, digital learning facilities, private tutoring, transportation, and a conducive home learning environment, all of which contribute to students' academic success. Consequently, students from families with higher socio-economic status tend to have

greater educational opportunities and stronger academic support than those from economically disadvantaged households.

Several empirical studies have established a positive relationship between parental socio-economic status and students' academic performance. Zhang *et al.*, (2021) found that parental income, occupation, and educational background significantly predicted the academic performance of secondary school students in Imo State, Nigeria, with students from higher socio-economic backgrounds recording superior academic achievement. Similarly, Rintep and Fwangle (2025) reported that parental socio-economic background significantly influenced students' academic performance in Plateau State through improved access to educational resources and home learning support. International evidence also supports this relationship. Zhang *et al.* (2021) found that parental socio-economic status strongly predicted educational outcomes among secondary school students in the Czech Republic, while Chen *et al.*, (2024), using data from 54 countries, concluded that socio-economic status consistently predicts students' achievement across different educational systems. Likewise, Davis-Kean, Sexton, and Magnuson (2021) and Chen *et al.*, (2023) reported that parental socio-economic conditions enhance academic performance by increasing access to learning resources, parental expectations, motivation, and supportive home learning environments. These findings collectively suggest that parental socio-economic status remains a strong predictor of students' academic performance across diverse educational contexts.

Parental Gender and Academic Performance

Parental gender refers to the distinct educational roles performed by fathers and mothers in supporting children's academic development. Although parental responsibilities vary across families and cultures, fathers are generally associated with financial provision, discipline, educational decision-making, and long-term planning, whereas mothers are more involved in homework supervision, emotional support, monitoring school activities, and maintaining communication with teachers. These complementary roles contribute to creating a supportive home environment that promotes students' academic achievement.

Research has consistently shown that active participation by both fathers and mothers positively influences students' academic performance. Cui and Liu (2025), through a meta-analysis, reported that maternal involvement significantly enhanced homework supervision, emotional support, and communication with teachers, while paternal involvement strengthened students' motivation, discipline, educational aspirations, and financial support for schooling. Similarly, Epstein (2018) found that students whose fathers and mothers were actively involved in their education performed significantly better academically than those receiving limited parental support. Cui and Liu (2025) also reported that combined parental involvement enhanced students' academic confidence, motivation, and achievement, emphasizing that fathers' and mothers' contributions complement one another. Furthermore, Zhang *et al.* (2021) observed that parental involvement, irrespective of gender, significantly improved students' educational outcomes when both

parents actively participated in their children's learning. These studies demonstrate that parental gender influences academic performance through the unique yet complementary educational roles performed by fathers and mothers, thereby reinforcing the importance of balanced parental involvement in promoting students' academic success.

Methodology

This study adopted a correlational research design to examine the relationship between parent-related variables and the academic performance of senior secondary school students in Adamawa State, Nigeria. The correlational design was considered appropriate because it enabled the researcher to determine the nature and degree of relationship between the independent variables (parental socio-economic status and parental gender) and the dependent variable (academic performance) without manipulating any of the variables under investigation.

The study was conducted in Adamawa State, Nigeria, and focused on public senior secondary schools within the three educational zones of the state: Yola, Gombi, and Mubi. The population of the study comprised all senior secondary school (SS II) students in selected public senior secondary schools in the three educational zones. A sample of 376 students was selected using a multistage sampling procedure involving purposive, stratified, and simple random sampling techniques to ensure adequate representation of respondents from the selected schools.

Data were collected using a structured questionnaire titled Parent-Related Variables Questionnaire (PRVQ). The questionnaire consisted of two sections. Section A elicited respondents' demographic information, while Section B contained items measuring parental socio-economic status and parental gender using a five-point Likert scale ranging from Strongly Agree (5) to Strongly Disagree (1). Students' academic performance was obtained from their cumulative examination scores in core subjects as contained in school academic records.

The instrument was subjected to face and content validation by experts in Educational Management, Measurement and Evaluation, and Guidance and Counselling to ascertain its clarity, relevance, and adequacy in measuring the study variables. Their observations and recommendations were incorporated before the final administration of the instrument. The reliability of the questionnaire was established through a pilot study conducted among students outside the study area using the Cronbach Alpha method, which yielded an overall reliability coefficient of 0.88, indicating that the instrument was sufficiently reliable for data collection. The researcher, with the assistance of trained research assistants, administered the questionnaire directly to the respondents and retrieved the completed copies immediately to ensure a high return rate. Academic performance records were obtained from the schools with the approval of the school authorities.

The data collected were analyzed using the Statistical Package for the Social Sciences (SPSS). Pearson Product Moment Correlation (PPMC) was used to answer the research questions by determining the relationship between parental socio-economic status, parental gender, and students' academic performance, while the corresponding null hypotheses were tested using simple linear regression analysis at the 0.05 level of significance.

Results and Discussion

Research Question 1

What is the relationship between parental socio-economic status and academic performance of senior secondary school students in Adamawa State, Nigeria?

Table 4.1: Relationship between Parental Socio-Economic Status and Academic Performance of Senior Secondary School Students in Adamawa State

Variable	N	Mean	SD	r-value
Parental Socio-Economic Status	376	3.08	0.71	0.816
Academic Performance	376	78.42	8.64	

The result in Table 4.1 shows that parental socio-economic status had a mean rating of 3.08 with a standard deviation of 0.71, while students' academic performance had a mean score of 78.42 with a standard deviation of 8.64. The correlation coefficient ($r = 0.816$) indicates a strong positive relationship between parental socio-economic status and students' academic performance. This implies that students from families with higher socio-economic status tend to perform better academically than those from lower socio-economic backgrounds. The high correlation suggests that parents' level of income, occupation, and educational resources may significantly influence students' learning outcomes, likely through access to better educational materials, conducive study environments, and stronger academic support.

Research Question 2

What is the relationship between parental gender and academic performance of senior secondary school students in Adamawa State, Nigeria?

Table 4.2: Relationship between Parental Gender and Academic Performance of Senior Secondary School Students in Adamawa State

Variable	N	Mean	SD	r-value
Parental Gender	376	3.11	0.69	0.819
Academic Performance	376	78.42	8.64	

Table 4.2 reveals that parental gender had a mean rating of 3.11 and a standard deviation of 0.69, while academic performance recorded a mean of 78.42 with a standard deviation of 8.64. The correlation coefficient of 0.819 indicates a strong positive relationship between parental gender and students' academic performance. This suggests that parental gender is associated with differences in students' academic

achievement. The result may imply that the involvement or influence of either father or mother contributes meaningfully to students' educational outcomes. It further suggests that the role played by parents, whether maternal or paternal, may shape the level of academic encouragement, supervision, and motivation students receive.

H₀₁: There is no significant relationship between parental socio-economic status and academic performance of senior secondary school students in Adamawa State, Nigeria.

Table 4.5: Summary of PPMC of Relationship between Parental Socio-Economic Status and Academic Performance of Senior Secondary School Students in Adamawa State

Variable	N	Mean	SD	r-value	p-value	Decision
Parental Socio-Economic Status	376	3.08	0.71	0.816	0.000	H ₀₁ rejected
Academic Performance	376	78.42	8.64			

Table 4.5 presents the Pearson Product Moment Correlation (PPMC) analysis of the relationship between parental socio-economic status and academic performance of senior secondary school students in Adamawa State, Nigeria. The result shows that parental socio-economic status had a mean score of 3.08 with a standard deviation of 0.71, while academic performance had a mean score of 78.42 with a standard deviation of 8.64. The computed correlation coefficient ($r = 0.816$) indicates a very strong positive relationship between parental socio-economic status and students' academic performance. The p-value of 0.000 is less than the 0.05 level of significance, showing that the relationship is statistically significant. Therefore, the null hypothesis (H_{01}), which states that there is no significant relationship between parental socio-economic status and academic performance of senior secondary school students in Adamawa State, was rejected. This implies that parental socio-economic status significantly influences students' academic performance, with students from higher socio-economic backgrounds tending to perform better academically.

H₀₂: There is no significant relationship between parental gender and academic performance of senior secondary school students in Adamawa State, Nigeria.

Table 4.6: Summary of PPMC of Relationship between Parental Gender and Academic Performance of Senior Secondary School Students in Adamawa State

Variable	N	Mean	SD	r-value	p-value	Decision
Parental Gender	376	3.11	0.69	0.819	0.000	H_{02} rejected
Academic Performance	376	78.42	8.64			

Table 4.6 shows the Pearson Product Moment Correlation analysis of the relationship between parental gender and academic performance of senior secondary school students in Adamawa State, Nigeria. The findings indicate that parental gender recorded a mean score of 3.11 with a standard deviation of 0.69, while academic performance had a mean score of 78.42 and a standard deviation of 8.64. The correlation coefficient obtained ($r = 0.819$) reveals a very strong positive relationship between parental gender and students' academic performance. The p-value of 0.000 is below the 0.05 significance threshold, indicating that the relationship is statistically significant. Consequently, the null hypothesis (H_{02}), which states that there is no significant relationship between parental gender and academic performance of senior secondary school students in Adamawa State, was rejected. This suggests that parental gender has a significant relationship with students' academic performance in the study area.

Discussion of Findings

The findings revealed a significant relationship between parental socio-economic status and the academic performance of senior secondary school students in Adamawa State, indicating that students from families with higher income, better occupations, and stronger educational backgrounds tend to achieve better academically due to greater access to educational resources, supportive home environments, and academic guidance. This finding is consistent with previous studies by Zhang et al. (2021), Rintep and Fwangle (2025), Zhang et al. (2021), Eremie and Oruitemeka (2022), Chen *et al.*, (2024), Davis-Kean et al. (2021), and Chen et al. (2023), all of which established that parental socio-economic status is a strong predictor of students' academic achievement through improved learning opportunities, parental support, and access to educational resources.

The study also found a significant relationship between parental gender and students' academic performance, suggesting that the complementary roles of fathers and mothers positively influence students' educational outcomes. While mothers often provide emotional support, homework supervision, and regular academic monitoring, fathers commonly contribute through financial support, discipline, motivation, and educational planning. These combined efforts enhance students' confidence, motivation, discipline, and commitment to learning. This finding agrees with those of Cui and Liu (2025), Epstein (2018), Cui and Liu (2025), Zhang et al. (2021), Epstein (2018), Jeynes (2022), and Davis-Kean et al. (2021), who similarly reported that active involvement of both parents significantly improves students' academic performance. Overall, the findings underscore the importance of strengthening parental socio-economic support and

promoting the active participation of both fathers and mothers in enhancing the academic achievement of senior secondary school students in Adamawa State, Nigeria.

Conclusion

Based on the findings of this study, it is concluded that parent-related variables significantly influence the academic performance of senior secondary school students in Adamawa State, Nigeria. Specifically, parental socio-economic status has a strong positive relationship with students' academic performance, indicating that students whose parents possess better socio-economic resources tend to achieve higher academic outcomes. Similarly, parental gender was found to be significantly related to students' academic performance, suggesting that the complementary educational roles of fathers and mothers contribute meaningfully to students' academic success. The study therefore concludes that improving parents' socio-economic capacity and encouraging the active involvement of both fathers and mothers in their children's education are essential for enhancing the academic performance of senior secondary school students in Adamawa State, Nigeria.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. **Parental Socio-Economic Status:** Government, non-governmental organizations, and school authorities should strengthen support programmes for students from low socio-economic backgrounds through scholarships, educational grants, provision of learning materials, and other interventions to reduce the negative effects of financial constraints on students' academic performance.
2. **Parental Gender:** Parents should be encouraged through school-based sensitization programmes and Parent-Teacher Association (PTA) meetings to ensure the active involvement of both fathers and mothers in their children's education, as their complementary roles in academic supervision, motivation, emotional support, and educational decision-making contribute significantly to improved academic performance.

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