

**INFLUENCE OF PARENTAL INVOLVEMENTS AND SOCIOECONOMIC STATUS ON
ACADEMIC ACHIEVEMENT OF UNDERGRADUATE BIOLOGY EDUCATION STUDENTS
IN FEDERAL UNIVERSITY IN NORTH WEST NIGERIA**

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Abstract

This study investigated the influence of parental involvement and socioeconomic status on the academic achievement of undergraduate Biology Education students in the Federal University of Education, Zaria, Nigeria. The study adopted an ex post facto survey research design. The population comprised undergraduate Biology Education students, from which a sample of 100 students was selected using simple random sampling. Data were collected using the *Parental Involvement and Socioeconomic Status Questionnaire (PISQ)* and a Biology Education 300-Level CGPA Proforma. The questionnaire yielded a reliability coefficient of 0.82, indicating satisfactory internal consistency. Descriptive statistics (mean and standard deviation) were used to answer the research questions, while simple linear regression was employed to test the hypotheses at the 0.05 level of significance. The findings revealed that undergraduate Biology Education students experienced a high level of parental involvement (Grand Mean = 4.36, SD = 0.61) and a high level of parental socioeconomic status (Grand Mean = 4.03, SD = 0.70). Students recorded a moderate mean academic achievement (Mean = 2.51, SD = 0.58). Regression analysis showed that parental involvement significantly influenced students' academic achievement ($F(1,98) = 50.477$, $p < 0.05$, $\beta = 0.583$, $R^2 = 0.340$), explaining 34.0% of the variance in academic achievement. Similarly, parental socioeconomic status significantly influenced students' academic achievement ($F(1,98) = 51.069$, $p < 0.05$, $\beta = 0.585$, $R^2 = 0.343$), accounting for 34.3% of the variance. The study concluded that both parental involvement and parental socioeconomic status are significant predictors of undergraduate Biology Education students' academic achievement. It was recommended that parents should be encouraged to participate actively in their children's academic activities, while governments and university authorities should strengthen scholarship, bursary, and financial support programmes to reduce socioeconomic barriers and improve students' academic outcomes.

Keywords: Parental involvement, socioeconomic status, academic achievement, Biology Education, Nigeria.

Introduction

Education remains the cornerstone of national development and individual empowerment. It is universally acknowledged as the key to success for every nation and the primary determinant of a prosperous future for its youth. Akanle (2017) emphasized that education is the best legacy a nation can bequeath to her citizens, particularly children and youth, as the quality of education within a society largely determines its level of advancement. It forms the foundation of human capital development, fosters economic progress, and strengthens social cohesion (Organization for Economic Co-operation and Development [OECD], 2018). Furthermore, education equips individuals with essential life skills that enhance decision-making, productivity, and adaptability to global changes. A well-educated populace contributes to innovation, economic growth, and social transformation (UNESCO, 2021). Higher educational attainment correlates positively with improved employment prospects and earning potential (World Economic Forum [WEF], 2020). Education enables individuals to participate actively in civic life, engage in critical thinking, and respond effectively to emerging global challenges.

Science education occupies a unique and essential role in modern curricula, as it cultivates inquiry, creativity, and evidence-based reasoning. It equips learners with the capacity to interpret and apply scientific concepts to solve real-world problems (Osborne & Dillon, 2017). Science education fosters critical thinking, enhances curiosity, and encourages the exploration of natural and technological phenomena. It also enables learners to engage effectively with global challenges such as climate change, environmental sustainability, and public health (National Academies of Sciences, Engineering, & Medicine, 2018). In the 21st century, where economies are increasingly driven by science and innovation, the development of scientific literacy is indispensable for national progress and informed citizenship.

Among the branches of science, biology occupies a particularly central position due to its focus on understanding life and living systems. Alberts, Johnson, Lewis, Raff, Roberts, and Walter (2002) describe biology as fundamental to understanding human health, disease prevention, heredity, and ecological balance. It provides a foundation for careers in medicine, biotechnology, environmental science, and agriculture (Campbell, Reece, Urry, Cain, Wasserman, Minorsky, & Jackson, 2022). Joda (2019) observed that from ancient times, biological knowledge has been crucial for food production, disease control, and human survival. Understanding biological principles enables individuals to make informed decisions about health, environment, and sustainable living. Despite its centrality, however, students' performance in biology in Nigeria particularly in the Northwest remain unsatisfactory. Several studies have reported low achievement scores and negative perceptions of the subject among secondary and tertiary students (Adeyemo, Ogunniyi, & Dada, 2023; Eze & Oladele, 2022). Many learners perceive biology as abstract, difficult, or irrelevant to their future careers, resulting in poor engagement and declining academic outcomes. Institutional data

reveal troubling trends: in 2023/2024 session showed only 19% of students across all levels achieved a clear pass. In 2024/2025, trail rates surged to 76% (100 level), 73% (200 level), 98% (300 level), 98% (400 level), and 49% (500 level), (MAU, Yola), indicating widespread academic challenges. These figures suggest that foundational levels are particularly affected, with minimal improvement at higher levels. Federal University of Education, Zaria reported 62%, 55%, 69%, and 20% trail rates for 100 to 400 levels in 2023/2024, which worsened in 2024/2025 to 93%, 57%, 64%, and 55% respectively. These persistent academic struggles highlight the need to address underlying factors such as parental involvement, which research shows significantly influences student performance and attitudes toward biology.

Several factors contribute to this low achievements, these factors span across academic, personal, and socio-economic domains, including parental background, teacher quality, learning resources, student motivation, inadequate instructional resources, low teacher-student interaction, limited learning facilities and school infrastructure (Olatunji, Ibrahim, & Akinbode, 2021). Ignoring socio-economic and familial influences may perpetuate educational disparities, especially in underserved regions. Therefore, exploring parental factors is essential for designing targeted interventions that can enhance academic achievement, foster positive attitudes, and strengthen Nigeria's future scientific workforce. Focusing on parental factors specifically, factors such as socioeconomic status and level of education directly correlate with the resources and support available to students. Parents are the primary persons that engage in the upbringing of the child and his socialization. Usaini and Abubakar (2015) opined that the resources and skills possess by the parents, they use them wisely, efficiently and joyfully for upbringing of their children. The current economic difficulties and poor household structures in Nigeria, have exposed students to various challenges that adversely affect their academic achievements. This challenge is exacerbated by regional disparities in educational resources, socioeconomic challenges, and limited parental support, which have contributed to a decline in biology performance among undergraduates.

Current research and experiences indicate that these academic difficulties create barriers for students aiming to succeed in biology-related fields, ultimately affecting the workforce quality in sectors that require a strong biological sciences foundation (Eze & Oloruntegbe, 2019). Parents play a dynamic role to enhance their children's academic outcomes. They provide financial support, emotional support and motivational as well as facilitate the resources (e.g., books, newspaper, and educational toys and other things) to ensure their children's better academic achievements. According to Esteban (2024), parents are a child's first teachers, and in order to help them reach their full potential, parents must actively work toward advancement alongside offering encouragement and support.

Parental involvement in education of their children is said to be a key function of child total functioning as well as their academic success. In different light, Masabo, Muchopa and Kuoth (2017) conduct a study on

parental involvement in school activities in Kibondo Districts, Tanzania. Challenges and Remedies. In their findings of they found that teachers were in disagreement that parents' involvement, with its challenges did not affect academic performance of students. Parent's timely support and guidance can work wonders (Narad & Abdullah, 2016), although, parental involvement can help the child in overcoming various difficulties in life, especially in the area of academics, however, overall parental engagement on campus is low. For instance, the majority of parents do not come on campus to visit and see students in the classroom, also most also do not volunteer for events, nor do they communicate with the staff with any regularity (consistently throughout the school year) since the leaders of the school have not put a system in place to encourage overall communication (Welch, 2024).

In Nigeria, economic hardship, unemployment, and inadequate household income have created challenges that hinder parents' capacity to support their children's education, especially in science-related fields (Eze & Oloruntegbe, 2019). Socioeconomic status (SES) represents a crucial parental factor influencing academic performance. Students from higher SES backgrounds tend to have greater access to learning materials, digital tools, and conducive environments that foster academic success (Reeves & Rothwell, 2023). Conversely, children from lower-income families face multiple barriers, including food insecurity, lack of instructional resources, and unstable home conditions (Sullivan, Jones, & Davis, 2019). Studies by Abdul-El-Fattah (2015) and Mingzhi, Zhang, and Zhang (2020) show that limited parental income forces some students to take on income-generating activities, which distracts from their studies, leading to poor attendance and low achievement. These inequalities are further aggravated by rising educational costs, inflation, and declining public support for tertiary institutions in Nigeria (Efe & Clever, 2024).

Ultimately, parental factors such as involvement and socioeconomic status form the foundation upon which students' academic achievements are built. Understanding these relationships provides valuable insights for educators, policymakers, and researchers seeking to improve biology education outcomes in Nigerian universities. Enhancing parental support and addressing socioeconomic barriers can foster improved motivation, engagement, and achievement among students, particularly in science disciplines that are essential for national development and technological progress.

Statement of the Problem

Biology is one of the core science disciplines that provides the foundation for careers in medicine, agriculture, biotechnology, environmental management, and science education. Despite its importance, the academic achievement of undergraduate Biology Education students in Nigerian universities has remained a major concern. Persistent poor academic performance threatens the production of competent biology teachers and professionals needed for national scientific and technological development.

Evidence from universities in Northern Nigeria reveals a disturbing pattern of poor academic performance among Biology Education students. At Modibbo Adama University (MAU), Yola, institutional records for the 2023/2024 academic session indicated that only 19% of Biology Education students across all levels obtained a clear pass. The situation deteriorated further during the 2024/2025 academic session, with trail rates of 76% (100 Level), 73% (200 Level), 98% (300 Level), 98% (400 Level), and 49% (500 Level). Similarly, at the Federal University of Education, Zaria, trail rates in the 2023/2024 academic session were 62%, 55%, 69%, and 20% for 100, 200, 300, and 400 Levels, respectively. In the 2024/2025 academic session, these figures worsened to 93%, 57%, 64%, and 55%, respectively. These statistics indicate a persistent decline in students' academic achievement despite the strategic importance of Biology Education to national development.

Several studies have attributed students' poor academic achievement to school-related factors such as inadequate instructional resources, ineffective teaching methods, poor learning facilities, and low student motivation. However, family-related factors, particularly parental involvement and socioeconomic status, have increasingly been recognized as important determinants of students' academic success. Parents who provide financial support, monitor academic progress, encourage learning, and create conducive home environments are more likely to enhance their children's educational outcomes. Conversely, limited parental involvement and poor socioeconomic conditions may restrict access to learning resources, increase financial and psychological stress, and ultimately reduce students' academic achievement.

Although previous studies have investigated parental involvement and socioeconomic status in relation to students' academic performance, most focused on primary and secondary school students, while relatively few have examined undergraduate Biology Education students in Nigerian universities. Furthermore, findings from existing studies remain inconclusive, with some reporting strong positive relationships and others finding weak or insignificant effects. This inconsistency, together with the alarming academic statistics reported by MAU, Yola and the Federal University of Education, Zaria, creates a clear need for empirical investigation.

It is against this background that this study sought to determine the influence of parental involvement and socioeconomic status on the academic achievement of undergraduate Biology Education students in the Federal University of Education, Zaria. The findings of the study are expected to provide evidence that will assist university administrators, lecturers, parents, and policymakers in developing strategies aimed at strengthening parental support, addressing socioeconomic barriers, and improving the academic achievement of Biology Education students.

Objectives of the Study

The main objective of the study is to investigate the influence of parental involvements and socioeconomic status on academic achievement of undergraduate Biology education students in Federal Universities in North West Nigeria. Specifically, the study determined:

1. The influence of parental involvement on Biology students' academic achievement in Northwest Nigeria.
2. The influence of parental socioeconomic status on Biology students' academic achievement in Northwest Nigeria.
3. The mean academic achievement of undergraduate Biology education students in North West Biology?

Research Questions

The following research questions guided the study:

1. What is the level of parental involvement of undergraduate biology education students in Northwest Nigeria?
2. What is the level of parental socioeconomic status of undergraduate Biology education students in Northwest Nigeria?
3. What is the mean academic achievement of undergraduate Biology education students in Northwest Biology?

Hypotheses

Two hypotheses were formulated and tested at 0.05 level of significance:

- H₀₁: There is no significant influence of parental involvement on Biology students' academic achievement in Northwest Nigeria.
- H₀₂: There is no significant influence of parental socioeconomic status on Biology students' academic achievement in Northwest Nigeria.

Literature Review

Academic achievement is influenced by several school, personal, and family-related factors, among which parental involvement and socioeconomic status have received considerable attention. Parental involvement refers to the participation of parents in their children's educational activities through academic monitoring, encouragement, provision of learning materials, communication with teachers, and emotional support. Studies have consistently shown that students whose parents actively participate in their education tend to demonstrate higher academic achievement, stronger motivation, and better learning outcomes than those with limited parental support (Boonk et al., 2018; Dawson et al., 2020). Similarly, Hill and Tyson (2022)

reported that parental encouragement and regular communication regarding academic activities positively influence students' performance.

Parental socioeconomic status, which includes parents' educational attainment, occupation, and income level, is another important determinant of students' academic success. Families with higher socioeconomic status are generally better positioned to provide quality educational resources, conducive learning environments, and financial support that enhance students' learning opportunities. Conversely, students from low socioeconomic backgrounds often experience inadequate access to instructional materials, financial difficulties, and limited academic support, which negatively affect their academic performance (Reeves & Rothwell, 2023; Chen et al., 2022). McCoy, Smith, and Johnson (2023) further observed that socioeconomic disparities continue to widen educational inequalities, particularly in developing countries.

In the Nigerian context, studies have equally established that parental involvement and socioeconomic status significantly influence students' academic achievement. Usaini and Abubakar (2015) found that parents' occupation and income significantly affected students' academic performance by determining the level of educational support available at home. Similarly, Eze and Oloruntegbe (2019) reported that economic hardship and limited parental support contributed to poor academic outcomes among science students. Despite these findings, most Nigerian studies have concentrated on primary and secondary school students, with limited attention given to undergraduate Biology Education students in universities. This gap justifies the present study, which examines the influence of parental involvement and socioeconomic status on the academic achievement of undergraduate Biology Education students in the Federal University of Education, Zaria.

Methodology

This study adopted the ex post facto survey research design. An ex post facto (after-the-fact) design, also referred to as a causal-comparative design, is a non-experimental quantitative approach in which the researcher investigates existing associations or differences among variables without manipulating the independent variable (Creswell & Creswell, 2018). According to Kerlinger and Lee (2000), the ex post facto design is particularly useful for educational research where variables of interest, such as parental background and student performance, cannot be ethically or practically manipulated. The population for the study comprised all undergraduate Biology Education students in the Department of Biology Education, Faculty of Education, Federal University of Education, Zaria. A total of 100 undergraduate Biology Education students were selected from the Department of Biology Education, Faculty of Science Education, Federal University of Education, Zaria. The sample was drawn using simple random sampling, which

ensured that every students had an equal chance of being included in the study. This approach minimized selection bias and enhanced the representativeness of the sample.

Data for the study were collected using two instruments. The first was a structured questionnaire titled “Parental involvements and Socioeconomic status Questionnaire (PISQ)”, measured on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The second instrument used was the Biology Education 300-Level CGPA Proforma, which provided students’ cumulative grade point averages as an objective measure of academic achievement. The reliability coefficient obtained for the instrument was 0.82, indicating a high degree of internal consistency

Results and Discussion

The data collected were analyzed using both descriptive and inferential statistics. Descriptive statistics, specifically mean and standard deviation, were used to summarize respondents’ demographic information and describe the distribution of parental characteristics.

Inferential statistics, simple linear regression was employed to determine the influence of parental characteristics on biology students’ academic achievement.

Result of Research Questions

Research Question 1

What is the level of parental involvement of undergraduate biology education students in North West Nigeria?

Table 1: Mean and Standard Deviation of Level of Parental Involvement of Undergraduate Biology Education Students in North West Nigeria

S/N	Item	Mean	SD	Remark
1	My parents provide ample financial support for my university education.	4.33	0.60	A
2	My parents regularly monitor my academic progress.	4.50	0.56	A
3	My parents' encouragement motivate me to excel in my studies	4.29	0.64	A
4	My parents provide input when I make significant academic decision.	4.52	0.59	A
5	My parents encourage me to participate in school extracurricular activities.	4.47	0.59	A
6	My parents discuss my future career aspirations with me.	4.36	0.72	A
7	My parents provide necessary school materials promptly.	4.63	0.56	A
8	My parents communicate regularly with my Lecturers.	3.71	0.66	A
9	My parents help me create a timely study schedule.	3.99	0.70	A
10	My parents encourage me to focus on my academic goals.	4.75	0.44	A
Grand Mean		4.36	0.61	A

The

results in Table 1 show that the mean scores for parental involvement ranged from 3.71 to 4.75, with corresponding standard deviations between 0.44 and 0.72. The grand mean of 4.36 (SD = 0.61) indicates that undergraduate biology education students in North west Nigeria generally experience a high level of parental involvement. This suggests that parents frequently support their children's academic activities, monitor progress, and encourage focus on academic goals.

Research Question 2

What is the level of parental socioeconomic status of undergraduate Biology education students in North west Nigeria?

Table 2: Mean and Standard Deviation of Level of Parental Socio – Economic Status of Undergraduate Biology Education Students in North West Nigeria

S/N	Item	Mean	SD	Remark
11	My parents have high level of formal education	3.88	0.71	A
12	My parents' can afford to provide me with necessary learning resources.	3.95	0.72	A
13	My parents are engaged in stable and well defined occupation.	4.13	0.69	A
14	My parents' economic ability influences my choice of school.	4.13	0.69	A
15	My parent earn an income that is sufficient to meet our family's needs.	3.95	0.70	A
16	My parents' economic ability influences my choice of school.	3.92	0.65	A
17	My parents can afford to support my education without difficulty.	3.91	0.68	A
18	I face fewer challenges in school due to my family's financial stability.	4.13	0.69	A
19	My parents handle unexpected expenses in my education.	4.12	0.71	A
20	I am confident in my academic pursuits because of my parents' socioeconomic standing.	4.22	0.70	A
Grand Mean		4.03	0.70	A

Table 2 shows mean scores between 3.88 and 4.22, with standard deviations ranging from 0.65 to 0.72. The grand mean of 4.03 (SD = 0.70) signifies a high level of socioeconomic status among parents of undergraduate biology education students. This finding suggests that families generally enjoy moderate to stable financial conditions that facilitate access to quality education and learning resources.

Research Question 3

What is the mean academic performance scores of undergraduate Biology education students in North West Nigeria?

Table 3: Mean Academic Performance Scores of Undergraduate Biology Education Students in North West Biology

Variable	N	Mean	Std. Deviation
Students' academic achievement	100	2.5055	.58436

As presented in Table 3, the mean academic performance score of students was 2.51 with a standard deviation of 0.58. This indicates that students demonstrated a moderate level of academic achievement in their biology education program, suggesting room for further improvement through enhanced study support and parental engagement.

Result of Hypotheses

H₀₁: There is no significant influence of parental involvement on Biology students' academic achievement in North West Nigeria.

Table 4a: ANOVA of Influence of Parental Involvement on Biology Students Academic Achievement

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.493	1	11.493	50.477	.000 ^b
	Residual	22.314	98	.228		
	Total	33.807	99			

a. Dependent Variable: Students' academic achievement

b. Predictors: (Constant), Parental Involvement

Table 4a presents the results of an ANOVA test examining the influence of parental involvement on Biology students' academic achievement in North West Nigeria. The F-value is $F(1, 98) = 50.477$, $p < 0.05$, indicating that the effect of parental involvement on academic achievement is statistically significant. This

means the null hypothesis (HO1) is rejected, and parental involvement does have a meaningful impact on student achievement.

Table 4b: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.583 ^a	.340	.333	.47717

a. Predictors: (Constant), Parental Involvement

Table 4b summarizes the regression model for parental involvement's effect on achievement. With $R = 0.583$ and $R^2 = 0.340$, parental involvement explains 34% of the variance in Biology students' achievement. The adjusted R^2 of 0.333 and a standard error of 0.47717 indicate a good model fit.

Table 4c: Coefficients of Beta

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.334	.683		-3.418	.001
	Parental Involvement	1.111	.156	.583	7.105	.000

a. Dependent Variable: Students' academic achievement

Table 4c provides regression coefficients for the same relationship. The standardized beta for parental involvement is 0.583, $t = 7.105$, $p < 0.05$, signifying a moderate positive effect—greater parental involvement corresponds to higher student achievement. The constant is significant and negative, suggesting the intercept represents achievement when parental involvement is zero.

H₀₂: There is no significant influence of parental socioeconomic status on Biology students' academic achievement in North West Nigeria.

Table 5a: ANOVA of Influence of Parental Socio – Economic Status on Biology Students Academic Achievement

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.582	1	11.582	51.069	.000 ^b
	Residual	22.225	98	.227		
	Total	33.807	99			

a. Dependent Variable: Students' academic achievement

b. Predictors: (Constant), Parental Socioeconomic Status

Table 5a shows that parental socioeconomic status significantly influences students' academic achievement, $F(1, 98) = 51.07, p < 0.05$. This suggests that students' performance in biology varies significantly with their parents' socioeconomic standing.

Table 5b: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.585 ^a	.343	.336	.47622

a. Predictors: (Constant), Parental Socioeconomic Status

The model summary in Table 5b shows $R = 0.585$ and $R^2 = 0.343$, implying that 34.3% of the variance in students' academic achievement is explained by parental socioeconomic status. This represents a moderate to strong relationship between family socioeconomic background and student performance.

Table 5c: Coefficients of Beta

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.935	.623		-3.105	.002
	Parental Socioeconomic Status	1.066	.149	.585	7.146	.000

a. Dependent Variable: Students' academic achievement

Table 5c demonstrates that parental socioeconomic status significantly predicts academic performance ($\beta = 0.585, t = 7.15, p < 0.05$). The positive beta suggests that higher socioeconomic status leads to better student outcomes. Therefore, the null hypothesis is rejected.

Findings of the Study

1. The finding of the study revealed that parental involvement significantly influenced undergraduate Biology Education students' academic achievement in North West Nigeria, $F(1, 98) = 50.477, p < 0.05$.
2. The finding of the study also revealed that parental socioeconomic status significantly influenced undergraduate Biology Education students' academic achievement in North West Nigeria, $F(1, 98) = 51.07, p < 0.05$.

Discussion of Findings

The finding of the study revealed that parental involvement significantly influenced undergraduate Biology Education students' academic achievement in North-West Nigeria. This implies that students whose parents actively monitored their academic progress, provided encouragement, and supported their educational activities achieved better academic outcomes than those with less parental support. The finding agrees with Masabo, Muchopa and Kuoth (2017), who found that parental involvement had a significant effect on students' academic performance. It is also in tandem with Narad and Abdullah (2016), who reported that timely parental support and guidance positively enhanced students' academic achievement. Similarly, the finding corroborates Engel, Rutkowski and Scherer (2021), who established that parents' educational aspirations significantly influenced children's academic achievement. The agreement among these studies may be attributed to the important role parents play in motivating students, providing learning support, and creating conducive environments for academic success.

The study also found that parental socioeconomic status significantly influenced undergraduate Biology Education students' academic achievement in North-West Nigeria. This suggests that students from families with better educational, occupational, and financial backgrounds had greater opportunities to access educational resources and perform better academically. The finding agrees with Davis-Kean (2018), Abdul-El-Fattah (2015), Reeves and Rothwell (2023), and Zhonglu and Zeqi (2018), who all reported that parental socioeconomic status significantly affects students' academic achievement. The finding is further consistent with Mingzhi, Zhang and Zhang (2020), McCoy, Smith and Johnson (2023), Hoxworth, Thompson and Martinez (2023), as well as Chen, Li, Huang and Wang (2022), who found that students from higher socioeconomic backgrounds generally enjoy better educational opportunities, higher motivation, and improved academic performance. The consistency of these findings may be due to the fact that parents with higher socioeconomic status are better able to provide educational resources, financial support, and conducive learning environments that enhance students' academic achievement.

Conclusion

Based on the findings of the study, it was concluded that parental involvement and parental socioeconomic status are significant predictors of undergraduate Biology Education students' academic achievement in the Federal University of Education, Zaria. Students whose parents actively participate in their academic activities and those from higher socioeconomic backgrounds tend to perform better academically than their counterparts. The study therefore concludes that strengthening parental support and addressing

socioeconomic barriers are essential strategies for improving the academic achievement of undergraduate Biology Education students.

Recommendations

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

1. Parents should be encouraged to participate more actively in their children's academic activities by regularly monitoring their academic progress, providing guidance, and offering the necessary moral and financial support to improve undergraduate Biology Education students' academic achievement.
2. Government, university management, and other relevant stakeholders should strengthen financial support programmes, such as scholarships, bursaries, and educational grants, to minimize the negative effects of low parental socioeconomic status and enhance students' academic achievement.



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