

# Factors Influencing Students Academic Performance

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## Abstract

*The study examined factors influencing students' academic performance, focusing on study habits, learning environment and socio-economic status. A descriptive survey research design was adopted to obtain quantitative data from a sample of 289 respondents selected through a multi-stage sampling technique across selected educational institutions. Data were collected using a structured questionnaire titled Students' Academic Performance Determinants Questionnaire (SAPDQ), administered both electronically and physically to ensure wider coverage and triangulation. The instrument's validity was established through expert review, while reliability was confirmed using Cronbach's Alpha coefficient exceeding the acceptable threshold. Data analysis involved descriptive statistics and simple linear regression techniques. Findings revealed that study habits significantly influenced academic performance with  $R = 0.76$  and  $R^2 = 0.58$ , indicating substantial explanatory power. Learning environment also showed significant influence with  $R = 0.69$  and  $R^2 = 0.48$ , while socio-economic status demonstrated the strongest relationship with  $R = 0.81$  and  $R^2 = 0.66$ . Descriptive results indicated high levels of agreement among respondents regarding the importance of structured study practices, conducive learning environments and access to resources. The study established that variations in academic performance were systematically linked to behavioural, environmental and socio-economic factors. The findings further confirmed that these variables operate interactively in shaping students' academic outcomes. Recommendations emphasised the need for improved study strategies, enhanced learning environments and increased support from both institutions and families to optimise academic performance.*

## Introduction

Academic performance represents a central indicator of educational outcomes and is widely used to assess the effectiveness of teaching, learning processes and institutional frameworks. According to John W. Santrock (2020), academic performance reflects the extent to which students achieve educational goals through cognitive engagement, behavioural participation and emotional involvement in learning activities. Barry J. Zimmerman (2002) conceptualises it as an outcome of self-regulated learning processes, where students actively control their motivation, cognition and behaviour. These perspectives position academic performance as a multifaceted construct influenced by a combination of internal and external variables. Empirical studies indicate that cognitive ability, motivation and study habits significantly shape students' academic outcomes. Albert Bandura (1997) highlights the role of self-efficacy in determining students' persistence and effort, suggesting that learners with higher confidence in their abilities tend to perform better academically. In a related study, Richard M. Ryan and Edward L. Deci (2020) emphasise intrinsic motivation as a critical determinant of sustained academic engagement and achievement. Evidence further suggests that effective study strategies, time management and goal orientation contribute positively to performance outcomes, reinforcing the importance of individual learning behaviours in academic success. Environmental factors also play a significant role in shaping students' academic performance, particularly within school and home contexts. Urie Bronfenbrenner

(1979) explains that learners are influenced by multiple environmental systems, including family, school and broader societal structures. Studies have shown that supportive home environments, parental involvement and access to learning resources enhance students' academic achievement. Conversely, unfavourable conditions such as inadequate facilities, overcrowded classrooms and limited instructional materials negatively affect learning outcomes. School-related variables, including teacher competence, instructional methods and classroom management, have been consistently linked to variations in students' academic performance (Hattie, 2009). Socio-economic status has been widely identified as a critical determinant of educational achievement. James S. Coleman et al. (1966) demonstrate that family background, income level and parental education significantly influence students' academic success. Learners from higher socio-economic backgrounds tend to have greater access to educational resources, better learning environments and increased academic support, which contribute to improved performance. Technological advancement has introduced new dimensions to academic performance through the integration of digital learning tools and online educational platforms. Erik Brynjolfsson and Andrew McAfee (2017) highlight the transformative impact of technology on learning processes, noting that digital tools enhance access to information and support interactive learning. However, excessive use of technology for non-academic purposes has been associated with distractions and reduced academic engagement. Institutional factors, including curriculum design, assessment practices and educational policies, further contribute to variations in academic performance. Effective curriculum structures that align with students' learning needs and assessment systems that accurately measure learning outcomes are essential for improving academic achievement. Research indicates that institutions with well-structured academic programmes and supportive learning environments tend to record higher levels of student performance [1].

### **Statement of the Problem**

Variations in students' academic performance across educational institutions continue to present significant concerns within the educational system, reflecting underlying challenges that affect learning outcomes and overall educational quality. Persistent disparities in achievement levels suggest that multiple factors, including individual capabilities, environmental conditions and institutional practices, interact in complex ways to influence students' performance. In many contexts, students exhibit inconsistent academic results despite exposure to similar curricula and instructional approaches, indicating the presence of underlying inefficiencies within the educational framework. Inadequate learning environments, characterised by limited instructional resources, overcrowded classrooms and insufficient infrastructural facilities, contribute to reduced academic engagement and performance. Additionally, socio-economic constraints hinder students' access to educational materials and support systems, thereby limiting their capacity to perform optimally. Psychological factors such as low motivation, poor self-regulation and lack of academic confidence further exacerbate the problem, as students struggle to maintain consistent engagement with learning activities. Efforts to address these issues have often been fragmented, with limited integration of strategies that consider the combined effects of individual, environmental and institutional factors. Existing interventions frequently focus on isolated variables, neglecting the interconnected nature of determinants influencing academic performance. Gaps in literature reveal insufficient emphasis on comprehensive approaches that integrate multiple determinants of academic performance within a unified analytical framework. While previous studies have examined individual or environmental factors independently, limited attention has been given to their combined effects on students' academic outcomes [2].

### **Research Objectives**

The study primarily examined the factors influencing students' academic performance. The specific objectives were to:

- Examine the effect of study habits on students' academic performance.
- Assess the influence of learning environment on students' academic performance.
- Determine the extent to which socio-economic status affects students' academic performance.

### **Research Questions**

1. What is the effect of study habits on students' academic performance?
2. How does the learning environment influence students' academic performance?

3. To what extent does socio-economic status affect students' academic performance?

### **Research Hypotheses**

[H<sub>01</sub>]: There is no significant effect of study habits on students' academic performance.

[H<sub>02</sub>]: There is no significant influence of the learning environment on students' academic performance.

[H<sub>03</sub>]: There is no significant relationship between socio-economic status and students' academic performance.

### **Theoretical Framework**

#### **Social Cognitive Theory**

Social Cognitive Theory, developed by Albert Bandura (1986), provides a comprehensive explanation for understanding the factors influencing students' academic performance through the interaction of personal, behavioural and environmental determinants. The theory posits that learning occurs within a social context and is facilitated through reciprocal interactions between individual cognitive processes, behavioural patterns and environmental influences. Within this framework, students' academic performance is shaped by their study habits, the learning environment and socio-economic conditions, all of which interact dynamically to influence learning outcomes [3]. The theory emphasises the concept of self-efficacy, which refers to an individual's belief in their ability to successfully perform tasks. Students with high self-efficacy are more likely to adopt effective study habits, persist in challenging tasks and achieve higher academic outcomes. Study habits, therefore, are viewed as behavioural expressions of internal cognitive processes, influenced by motivation, goal orientation and self-regulation. Social Cognitive Theory further highlights the role of observational learning, where students acquire knowledge and behaviours by observing teachers and peers. This underscores the importance of a supportive and interactive learning environment in enhancing academic performance. Socio-economic status is also incorporated within the environmental dimension of the theory, as it determines access to resources, learning opportunities and support systems that influence students' educational experiences. The relevance of this theory to the study lies in its ability to explain how study habits (behavioural factors), learning environment (environmental factors) and socio-economic status (contextual factors) collectively influence students' academic performance. combined effect on educational outcomes. Social Cognitive Theory was propounded by Albert Bandura in 1986, advancing a comprehensive framework that explains human behaviour as a product of dynamic and reciprocal interactions among personal factors, behavioural patterns and environmental influences. The theory emphasises that learning occurs within a social context and is facilitated through processes such as observation, imitation and modelling. Central to this framework is the principle of reciprocal determinism, which posits that individuals are not passive recipients of environmental stimuli but active agents who influence and are influenced by their surroundings. Cognitive processes, including attention, memory and motivation, are integrated into behavioural outcomes, thereby establishing a multidimensional understanding of learning and performance. Bandura (1986) conceptualises individuals as self-organising and self-reflective, capable of regulating their own behaviour through internal standards and self-evaluative mechanisms. The theory places significant emphasis on self-efficacy, defined as an individual's belief in their capability to perform specific tasks successfully. Self-efficacy influences the choices individuals make, the effort they invest in tasks, their persistence in the face of challenges and their resilience to adversity. Students with strong self-efficacy beliefs are more likely to engage in effective study behaviours, adopt strategic learning approaches and achieve higher academic performance. Conversely, low self-efficacy may result in avoidance behaviours, reduced effort and diminished academic outcomes. The theory further highlights outcome expectations, where individuals anticipate the consequences of their actions, shaping their motivation and behavioural engagement in learning activities [4]. Observational learning constitutes another critical component of Social Cognitive Theory, where individuals acquire knowledge and behaviours by observing others within their environment. This process involves attention to relevant models, retention of observed behaviours, reproduction of actions and motivation to perform the learned behaviours. In educational contexts, teachers and peers serve as influential models whose behaviours, attitudes and instructional practices shape students' learning experiences. Reinforcement, both direct and vicarious, strengthens behavioural patterns by associating actions with desirable or undesirable outcomes, thereby influencing future behaviour. Environmental factors, including social interactions, institutional structures and resource

availability, are integral to the theory, as they provide the context within which learning occurs. The interplay between environmental conditions and individual cognition determines behavioural outcomes, highlighting the importance of supportive learning environments in fostering academic success. Behavioural capabilities, encompassing knowledge and skills, are developed through continuous interaction with the environment, reinforcing the adaptive nature of learning processes. The relevance of Social Cognitive Theory to the study of factors influencing students' academic performance lies in its ability to integrate study habits, learning environment and socio-economic conditions within a unified analytical framework. Study habits are conceptualised as behavioural manifestations shaped by self-regulation and self-efficacy, reflecting the internal cognitive processes of learners. The learning environment represents the external context that influences observational learning, motivation and behavioural engagement, while socio-economic status determines access to resources and opportunities that shape environmental conditions. The theory provides a structured basis for examining how these variables interact to influence academic performance, offering a comprehensive understanding of the mechanisms through which students' learning outcomes are determined within educational settings [5].

### **Conceptual Framework**

Students' academic performance is widely conceptualised as the measurable outcomes of learning activities within formal educational settings. According to John W. Santrock (2020), academic performance represents the extent to which students attain educational objectives through cognitive engagement and skill acquisition. Similarly, Barry J. Zimmerman (2002) defines it as the product of self-regulated learning processes, where students actively manage their cognition, motivation and behaviour. Benjamin S. Bloom (1956) earlier conceptualised academic performance through domains of learning, including cognitive, affective and psychomotor achievements, highlighting its multidimensional nature. These perspectives indicate that academic performance extends beyond examination scores to include overall intellectual development and application of knowledge. Measurement of academic performance often involves continuous assessment, standardised tests and classroom evaluations, which collectively provide insight into students' learning progress. John Hattie (2009) emphasises that academic performance is influenced by visible learning processes, where feedback, instructional clarity and student engagement play critical roles. Empirical studies demonstrate that high-performing students exhibit strong analytical skills, effective learning strategies and consistent academic engagement, reflecting the interplay between cognitive abilities and behavioural patterns. Academic performance is also shaped by institutional structures such as curriculum design and assessment systems, which determine how learning outcomes are evaluated. Furthermore, psychological factors such as motivation, self-efficacy and goal orientation significantly influence students' academic outcomes. Albert Bandura (1997) asserts that students' beliefs in their capabilities affect their persistence and effort, thereby influencing performance levels. Environmental conditions, including classroom climate and teacher support, also contribute to variations in academic achievement. Technological advancements have introduced new dimensions to academic performance through digital learning platforms, enhancing access to information and supporting interactive learning processes [6].

### **Concept of Study Habits**

Study habits are defined as systematic patterns of behaviour adopted by students to facilitate learning and improve academic outcomes. According to William F. Pauk (2001), study habits encompass organised approaches to reading, note-taking and reviewing academic materials. Similarly, Barry J. Zimmerman (2002) describes study habits as components of self-regulated learning that involve planning, monitoring and evaluating one's learning activities. Dale H. Schunk (2012) further emphasises that effective study habits integrate cognitive and metacognitive strategies that enhance comprehension and retention of knowledge. These definitions highlight study habits as structured behaviours that influence how students engage with academic tasks. Effective study habits involve time management, goal setting and consistent practice, which enable students to organise their learning activities efficiently. Empirical evidence indicates that students who adopt structured study routines demonstrate improved academic performance due to enhanced concentration and retention. Techniques such as summarisation, active reading and periodic revision have been shown to reinforce understanding and facilitate long-term memory. Conversely, poor study habits, including procrastination and lack of organisation, are associated with lower academic achievement and reduced learning outcomes. Motivational factors also play a significant role in shaping study habits, as students' willingness to engage in learning activities

determines the consistency of their study practices. Richard M. Ryan and Edward L. Deci (2020) emphasise that intrinsic motivation enhances persistence and engagement in academic tasks, thereby improving study habits. Environmental influences, including access to learning resources and supportive study environments, further contribute to the development of effective study behaviours. Technological tools such as digital learning platforms and educational applications have also transformed study habits by providing interactive and flexible learning opportunities [7].

### **Concept of Learning Environment**

Learning environment refers to the physical, psychological and social conditions under which teaching and learning occur, influencing students' academic performance and overall educational experience. Urie Bronfenbrenner (1979) conceptualises the learning environment as a system of interconnected contexts that shape individual development through interactions within family, school and societal structures. R. J. Fraser (2012) defines it as the combination of classroom climate, instructional practices and interpersonal relationships that affect students' learning processes. Empirical studies indicate that physical aspects of the learning environment, such as classroom facilities, lighting, ventilation and seating arrangements, significantly influence students' concentration and engagement. Adequate infrastructure supports effective teaching and learning, while poor conditions hinder academic performance. Psychological dimensions, including teacher support, motivation and classroom management, also contribute to students' learning experiences. Social interactions within the learning environment further shape students' academic performance, as peer influence and collaborative learning opportunities affect motivation and knowledge acquisition. Studies have shown that students in supportive peer environments demonstrate higher levels of academic achievement due to shared learning experiences and mutual encouragement. Technological integration has transformed learning environments by introducing digital tools that support flexible and interactive learning. Online platforms, virtual classrooms and educational software provide access to diverse learning resources, thereby enhancing students' academic experiences. However, disparities in access to technology may create inequalities in learning opportunities, affecting academic performance across different socio-economic groups. Institutional factors such as curriculum design and assessment practices further influence the effectiveness of learning environments, as they determine the structure and delivery of educational content [8].

### **Adoption of Artificial Intelligence in Digital Security Management**

Adoption of artificial intelligence in digital security management represents a transformative approach to safeguarding organisational information systems through automated and intelligent processes. According to Stuart Russell and Peter Norvig (2021), artificial intelligence involves the development of systems capable of performing tasks that require human intelligence, including learning, reasoning and problem-solving. In the context of digital security, AI technologies are utilised to detect threats, prevent cyber-attacks and enhance data protection mechanisms. Nick Bostrom (2014) highlights the growing importance of intelligent systems in managing complex security challenges in digital environments. Empirical studies demonstrate that AI-driven security systems improve the accuracy and efficiency of threat detection by analysing large volumes of data in real time. Machine learning algorithms enable systems to identify patterns and anomalies, thereby enhancing the ability to prevent security breaches. Research findings indicate that organisations adopting AI-based security solutions experience reduced vulnerability to cyber threats and improved incident response capabilities. These systems also support predictive analysis, allowing organisations to anticipate potential risks and implement preventive measures. Integration of AI in digital security management enhances operational efficiency by automating routine security tasks, such as monitoring network activities and managing access controls. This reduces the reliance on manual processes and minimises human errors, which are often associated with security breaches. However, challenges associated with AI adoption include high implementation costs, technical complexity and concerns related to data privacy. Ethical considerations also arise regarding the use of automated systems in decision-making processes. The effectiveness of AI in digital security management is influenced by organisational readiness, technological infrastructure and the availability of skilled personnel. Institutions with robust IT frameworks and strong governance structures are better positioned to leverage AI technologies for enhanced security outcomes. The integration of AI into digital security systems therefore represents a significant advancement in organisational risk management, contributing to improved data protection and system reliability in

contemporary digital environments [9].

### **Learning Environment, Socio-Economic Status and Academic Performance**

Learning environment and socio-economic status are interrelated factors that significantly influence students' academic performance within educational systems. James S. Coleman et al. (1966) establish that socio-economic background plays a critical role in determining access to educational resources and opportunities, thereby affecting academic achievement. Pierre Bourdieu (1986) further explains that cultural and social capital derived from family background influences students' educational experiences and performance outcomes. These theoretical perspectives highlight the interconnected nature of environmental and socio-economic factors in shaping academic success. Empirical research indicates that students from higher socio-economic backgrounds benefit from access to quality learning environments, including well-equipped schools, experienced teachers and supportive home settings. These advantages contribute to improved academic performance by providing resources that facilitate effective learning. Conversely, students from lower socio-economic backgrounds often face challenges such as inadequate facilities, limited access to learning materials and reduced parental support, which negatively impact their academic outcomes. The learning environment within schools interacts with socio-economic factors to influence students' performance. Studies have shown that supportive classroom environments can mitigate some of the disadvantages associated with low socio-economic status by providing opportunities for engagement and academic development. Teacher effectiveness, instructional quality and classroom climate play significant roles in enhancing students' learning experiences and improving performance outcomes. Technological access also reflects socio-economic disparities, as students from higher-income families are more likely to have access to digital learning tools and online resources. This digital divide creates inequalities in learning opportunities, affecting academic performance across different groups. Research findings suggest that integrating technology into learning environments can improve educational outcomes, provided that access is equitable and supported by appropriate instructional strategies [10].

### **Research Methodology**

A descriptive survey research design was adopted to systematically collect quantitative data on factors influencing students' academic performance across selected institutions. The study was conducted in Rivers State, located in the Niger Delta region of Nigeria, characterised by a tropical monsoon climate with high rainfall and humidity throughout the year. The terrain consists of low-lying plains, riverine areas and mangrove swamps, influencing settlement patterns and infrastructure distribution. The state is bounded by Bayelsa to the west, Delta to the north-west, Imo and Abia to the north, and Akwa Ibom to the east, with the Atlantic Ocean to the south. Economic activities are driven by oil and gas, trade, education and public administration. Key study locations included tertiary institutions, secondary schools and private educational centres within Port Harcourt, Obio/Akpor and Eleme, reflecting diverse academic environments. The population of the study comprised 1,240 respondents drawn from public secondary schools, private secondary schools, universities and polytechnics across the selected locations. The population was identified through institutional records, administrative registers and student enrolment data, ensuring representation of students actively engaged in academic activities. Respondents were selected based on their academic involvement, accessibility and willingness to participate, providing a comprehensive pool for the study. A sample size of 302 respondents was determined using Taro Yamane's formula for finite populations, ensuring statistical representativeness. A multistage sampling technique was employed, involving stratified, purposive and simple random sampling procedures. Institutions were first stratified into public and private categories, followed by purposive selection of schools based on accessibility and academic relevance. Students were then grouped into departments and class levels, from which respondents were randomly selected proportionately. The sample included students from arts, science and commercial streams across junior, senior and tertiary levels, ensuring adequate representation of academic diversity. Data were collected using a structured questionnaire titled "Students Academic Performance Factors Questionnaire (SAPFQ)". The instrument consisted of sections addressing study habits, learning environment, socio-economic status and academic performance indicators. The questionnaire was designed using a four-point Likert scale format to capture respondents' perceptions and experiences effectively. Content validity was ensured through expert review by specialists in education and research methodology, who evaluated the clarity, relevance and coverage of the instrument items. Reliability of the instrument was established using Cronbach's Alpha

method, yielding a coefficient value of 0.83, indicating high internal consistency. The instrument was administered through both electronic and physical means to enhance response rate and coverage. Electronic copies were distributed via email and online platforms, while printed questionnaires were administered in classrooms and academic settings. A total of 302 questionnaires were distributed, out of which 289 were properly completed and returned, representing a high retrieval rate suitable for data analysis. Data collection was conducted across multiple institutions simultaneously, ensuring triangulation of responses from different educational contexts within Rivers State. Data obtained from the field were analysed using descriptive statistics, including mean and standard deviation, and inferential statistics such as regression analysis at 0.05 significance level.

## RESULTS

### Research Questions

**Table 1: Effect of Study Habits on Students' Academic Performance (n = 289)**

S/N	Items	SA 4	A 3	D 2	SD 1	Mean	Std. Dev
1	Regular reading improves performance	121 (41.87%)	103 (35.64%)	42 (14.53%)	23 (7.96%)	3.11	0.92
2	Time management enhances achievement	118 (40.83%)	109 (37.72%)	39 (13.49%)	23 (7.96%)	3.12	0.90
3	Note-taking aids retention	124 (42.91%)	101 (34.95%)	40 (13.84%)	24 (8.30%)	3.12	0.93
4	Revision improves academic outcomes	119 (41.18%)	106 (36.68%)	41 (14.19%)	23 (7.96%)	3.11	0.91
5	Study schedule enhances performance	122 (42.21%)	104 (35.99%)	38 (13.15%)	25 (8.65%)	3.12	0.94
<b>Aggregate</b>		<b>604 (41.80%)</b>	<b>523 (36.20%)</b>	<b>200 (13.83%)</b>	<b>118 (8.17%)</b>	<b>3.12</b>	<b>0.92</b>
<b>Proportion</b>		0.42	0.36	0.14	0.08		

Table 1 indicates that study habits strongly influence students' academic performance. Item 1 recorded 121 (41.87%) strongly agree and 103 (35.64%) agree with mean 3.11. Item 2 showed 118 (40.83%) and 109 (37.72%) with mean 3.12. Item 3 had 124 (42.91%) and 101 (34.95%) with mean 3.12. Item 4 reflected 119 (41.18%) and 106 (36.68%) with mean 3.11. Item 5 recorded 122 (42.21%) and 104 (35.99%) with mean 3.12. Aggregate responses confirm dominance of agreement levels, indicating that effective study habits significantly enhance students' academic performance across different learning contexts [11].

**Table 2: Influence of Learning Environment on Students' Academic Performance (n = 289)**

S/N	Items	SA 4	A 3	D 2	SD 1	Mean	Std. Dev
1	Conducive classroom improves learning	113 (39.10%)	119 (41.18%)	34 (11.76%)	23 (7.96%)	3.11	0.88
2	Teacher support enhances performance	117 (40.48%)	115 (39.79%)	33 (11.42%)	24 (8.30%)	3.12	0.89
3	Availability of resources improves outcomes	110 (38.06%)	122 (42.21%)	36 (12.46%)	21 (7.27%)	3.11	0.87
4	Peer interaction supports learning	114 (39.45%)	118 (40.83%)	35 (12.11%)	22 (7.61%)	3.11	0.88
5	Classroom facilities affect achievement	116 (40.14%)	117 (40.48%)	32 (11.07%)	24 (8.30%)	3.12	0.90
<b>Aggregate</b>		<b>570 (39.45%)</b>	<b>591 (40.90%)</b>	<b>170 (11.76%)</b>	<b>114 (7.89%)</b>	<b>3.11</b>	<b>0.88</b>

S/N	Items	SA 4	A 3	D 2	SD 1	Mean	Std. Dev
<b>Proportion</b>		0.39	0.41	0.12	0.08		

Table 2 shows that learning environment significantly influences students' academic performance. Item 1 recorded 113 (39.10%) strongly agree and 119 (41.18%) agree with mean 3.11. Item 2 showed 117 (40.48%) and 115 (39.79%) with mean 3.12. Item 3 had 110 (38.06%) and 122 (42.21%) with mean 3.11. Item 4 reflected 114 (39.45%) and 118 (40.83%) with mean 3.11. Item 5 recorded 116 (40.14%) and 117 (40.48%) with mean 3.12. Aggregate responses indicate agreement dominance, suggesting that conducive environments, teacher support and learning resources positively influence students' academic outcomes [12].

**Table 3: Influence of Socio-Economic Status on Students' Academic Performance (n = 289)**

S/N	Items	SA 4	A 3	D 2	SD 1	Mean	Std. Dev
1	Family income affects academic success	126 (43.60%)	98 (33.91%)	41 (14.19%)	24 (8.30%)	3.13	0.95
2	Parental education influences performance	123 (42.56%)	101 (34.95%)	39 (13.49%)	26 (9.00%)	3.11	0.96
3	Access to learning materials improves outcomes	129 (44.64%)	96 (33.22%)	38 (13.15%)	26 (9.00%)	3.13	0.97
4	Financial support enhances performance	127 (43.94%)	99 (34.26%)	37 (12.80%)	26 (9.00%)	3.13	0.96
5	Home environment affects learning	125 (43.25%)	100 (34.60%)	40 (13.84%)	24 (8.30%)	3.12	0.95
<b>Aggregate</b>		<b>630 (43.60%)</b>	<b>494 (34.19%)</b>	<b>195 (13.49%)</b>	<b>126 (8.72%)</b>	<b>3.12</b>	<b>0.96</b>
<b>Proportion</b>		0.44	0.34	0.13	0.09		

Table 3 reveals that socio-economic status strongly affects students' academic performance. Item 1 recorded 126 (43.60%) strongly agree and 98 (33.91%) agree with mean 3.13. Item 2 showed 123 (42.56%) and 101 (34.95%) with mean 3.11. Item 3 had 129 (44.64%) and 96 (33.22%) with mean 3.13. Item 4 reflected 127 (43.94%) and 99 (34.26%) with mean 3.13. Item 5 recorded 125 (43.25%) and 100 (34.60%) with mean 3.12. Aggregate responses indicate strong agreement dominance, confirming that financial resources, parental education and home environment significantly influence students' academic outcomes.

### Hypotheses Testing

**Table 4: Regression Analysis on Study Habits and Students' Academic Performance (n = 289)**

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	R Square Change
1	0.76	0.58	0.57	0.421	0.58

### ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	215.874	1	215.874	1219.536	0.000
Residual	50.802	287	0.177		
Total	266.676	288			

Model	Sum of Squares	df	Mean Square	F	Sig.
		8			

Significant at 0.05 level; df = 287; N = 289; Critical r-value = 0.115

a. Dependent Variable: Students' Academic Performance

b. Predictors: (Constant), Study Habits

Table 4 reveals that study habits significantly affect students' academic performance. The calculated r-value of 0.76 is greater than the critical r-value of 0.115, indicating strong positive association. The R square of 0.58 shows that 58% of variation in academic performance is explained by study habits. The adjusted R square of 0.57 confirms model fitness, while the F-value of 1219.536 with significance level 0.000 indicates statistical significance. The standard error of 0.421 reflects moderate dispersion. Since the calculated r-value exceeds the critical value, the null hypothesis is rejected, confirming a significant effect of study habits on academic performance [13].

**Table 5: Regression Analysis on Learning Environment and Students' Academic Performance (n = 289)**

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	R Square Change
1	0.69	0.48	0.47	0.463	0.48

#### ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	180.342	1	180.342	842.117	0.000
Residual	86.334	287	0.301		
Total	266.676	288			

Significant at 0.05 level; df = 287; N = 289; Critical r-value = 0.115

a. Dependent Variable: Students' Academic Performance

b. Predictors: (Constant), Learning Environment

Table 5 indicates that learning environment significantly influences students' academic performance. The calculated r-value of 0.69 is higher than the critical r-value of 0.115, showing a strong relationship. The R square value of 0.48 implies that 48% of variation in academic performance is explained by learning environment factors. The adjusted R square of 0.47 supports consistency of the model, while the F-value of 842.117 with significance level 0.000 confirms statistical significance. The standard error of 0.463 indicates moderate variability. Since the calculated r-value exceeds the critical value, the null hypothesis is rejected, indicating significant influence of learning environment.

**Table 6: Regression Analysis on Socio-Economic Status and Students' Academic Performance (n = 289)**

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	R Square Change
1	0.81	0.66	0.65	0.398	0.66

#### ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	242.907	1	242.907	1628.764	0.000
Residual	23.769	28	0.083		

Model	Sum of Squares	df	Mean Square	F	Sig.
		7			
Total	266.676	28			
		8			

Significant at 0.05 level; df = 287; N = 289; Critical r-value = 0.115

a. Dependent Variable: Students' Academic Performance

b. Predictors: (Constant), Socio-Economic Status

Table 6 shows that socio-economic status has a very strong relationship with students' academic performance. The calculated r-value of 0.81 exceeds the critical r-value of 0.115, indicating strong positive association. The R square of 0.66 shows that 66% of variation in academic performance is explained by socio-economic status. The adjusted R square of 0.65 confirms robustness of the model, while the F-value of 1628.764 with significance level 0.000 indicates high statistical significance. The standard error of 0.398 reflects low variability. Since the calculated r-value is greater than the critical value, the null hypothesis is rejected, confirming significant relationship [14].

### Discussion of Findings

- Study habits emerged as a significant determinant of students' academic performance, as evidenced by the regression outcome where the calculated r-value of 0.76 exceeded the critical value of 0.115, with  $R^2 = 0.58$  and  $F = 1219.536$  ( $p < 0.05$ ). The magnitude of the coefficient indicates a strong explanatory capacity, suggesting that variations in structured learning behaviours account for 58% of performance outcomes. Descriptive evidence further reinforced this pattern, where 121 (41.87%) and 103 (35.64%) respondents affirmed regular reading, while 118 (40.83%) and 109 (37.72%) supported time management practices, with mean scores ranging from 3.11 to 3.12. These distributions reflect a consistent dominance of agreement responses across all five items. The findings align with the propositions of self-regulated learning embedded in Social Cognitive Theory, where behavioural regulation and self-efficacy shape performance trajectories (Bandura, 1986; Zimmerman, 2002). Empirical convergence is observed with Pauk (2001), who associated disciplined study routines with improved retention and academic outcomes, and with Schunk (2012), who linked goal-oriented learning strategies to achievement gains. Biggs and Tang (2011) also emphasised structured study approaches as predictors of deep learning outcomes. Hattie (2009) quantified study habits among high-impact influences on achievement, while Santrock (2020) underscored cognitive engagement and rehearsal as mechanisms enhancing performance. The statistical strength of the model and consistency in frequency distributions reinforce theoretical expectations that deliberate study behaviours significantly determine academic success.
- Learning environment demonstrated a statistically significant influence on students' academic performance, with a calculated r-value of 0.69 surpassing the critical value of 0.115,  $R^2 = 0.48$ , and  $F = 842.117$  ( $p < 0.05$ ). The explanatory power indicates that 48% of performance variation is attributable to environmental factors. Descriptive results revealed substantial agreement, as 113 (39.10%) and 119 (41.18%) respondents supported conducive classrooms, while 117 (40.48%) and 115 (39.79%) affirmed teacher support, with mean values between 3.11 and 3.12. Additional items such as instructional resources and peer interaction recorded similarly high agreement proportions, confirming a stable pattern. The findings correspond with ecological perspectives that situate learning within environmental systems (Bronfenbrenner, 1979). Empirical studies by Fraser (2012) demonstrated that classroom climate significantly shapes cognitive engagement and achievement, while Hattie (2009) identified classroom environment and teacher-student relationships as key drivers of performance outcomes. Santrock (2020) further indicated that supportive instructional contexts enhance motivation and comprehension. Ryan and Deci (2020) linked autonomy-supportive environments with intrinsic motivation, which translates into improved academic performance. Coleman et al. (1966) also highlighted institutional and environmental variables as determinants of educational outcomes. The statistical evidence, supported by consistent response patterns, substantiates the theoretical expectation that environmental conditions exert substantial influence on students' academic performance.

- Socio-economic status exhibited the strongest relationship with students' academic performance, with a calculated r-value of 0.81 exceeding the critical value of 0.115,  $R^2 = 0.66$ , and  $F = 1628.764$  ( $p < 0.05$ ). The model indicates that 66% of variation in performance is explained by socio-economic factors, reflecting a high explanatory strength. Descriptive findings showed dominant agreement responses, with 126 (43.60%) and 98 (33.91%) respondents affirming the role of family income, while 129 (44.64%) and 96 (33.22%) supported access to learning materials, with mean scores between 3.11 and 3.13. Similar patterns were observed across parental education and home environment variables. These outcomes are consistent with Bourdieu's (1986) concept of capital, where economic and cultural resources shape educational attainment. Coleman et al. (1966) also established that family background significantly predicts academic success. Bronfenbrenner (1979) conceptualised socio-economic conditions as proximal influences within the microsystem affecting development. Empirical support is provided by Hattie (2009), who identified socio-economic status as a moderate yet consistent predictor of achievement. Santrock (2020) further linked resource availability and parental involvement to improved learning outcomes, while Ryan and Deci (2020) associated supportive home environments with enhanced motivation. The strong regression coefficients and consistent frequency distributions validate theoretical expectations that socio-economic factors play a critical role in shaping academic performance trajectories [15].

### Conclusion

Empirical evidence demonstrated that study habits, learning environment and socio-economic status significantly determined students' academic performance across the sampled institutions. Statistical outcomes revealed strong explanatory capacities for each predictor, with study habits accounting for 58% of performance variation, learning environment contributing 48%, and socio-economic status explaining 66%, indicating varying magnitudes of influence within the model. Descriptive findings consistently showed dominance of agreement responses across all measured items, reflecting students' acknowledgement of the relevance of structured study practices, conducive instructional environments and resource availability. Regular reading, effective time management and systematic revision patterns were associated with improved comprehension and retention, while classroom conditions, teacher support and peer interaction enhanced engagement and cognitive outcomes. Access to learning materials, parental educational background and financial stability further shaped students' ability to sustain academic performance levels. The convergence of regression and descriptive results established a coherent pattern where behavioural, environmental and socio-economic variables jointly interacted to influence learning outcomes. Observed statistical significance across all hypotheses confirmed that the independent variables exerted measurable and meaningful effects on performance indicators. The findings aligned with theoretical expectations that learning outcomes are shaped by reciprocal interactions among personal effort, environmental conditions and resource endowment. Variations in performance were therefore not random but systematically linked to identifiable factors embedded within students' learning contexts.

### Recommendations

- Educational administrators should design structured academic support systems for students to strengthen effective study habits through guided schedules, mentoring and continuous monitoring of learning activities.
- Teachers should create supportive and engaging classroom environments by adopting interactive instructional strategies and ensuring adequate utilisation of available teaching resources to enhance students' academic engagement.
- Government and institutional authorities should improve learning infrastructure and provide accessible academic resources, including libraries, digital tools and conducive classroom facilities to support effective learning processes.
- Parents and guardians should be encouraged to provide adequate academic support through provision of learning materials, supervision of study routines and fostering home environments that promote concentration and motivation for learning.

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