



Influence of school environment on students' academic achievement in selected public secondary schools in Nigeria

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Abstract

The quality of the school environment remains an important determinant of effective teaching, learning, and students' academic achievement. This study investigated the influence of school environment on students' academic achievement in selected public secondary schools in Nigeria, with particular emphasis on school climate, teacher discipline, and physical facilities. The study adopted a descriptive survey research design. The study population comprised 1,636 teachers from 119 public secondary schools, from which a sample of 250 teachers was selected using simple random sampling. Data were collected using a researcher-developed 15-item structured questionnaire titled "Influence of School Environment Questionnaire (ISEQ)." The instrument was validated by experts in Educational Management and Tests and Measurement and yielded a Cronbach's alpha reliability coefficient of 0.83. Mean and standard deviation were employed to answer the research questions, while Chi-square (χ^2) statistics were used to test the hypotheses at the 0.05 level of significance. The findings showed that school climate was perceived to have a significant influence on students' academic achievement. Teacher discipline was also significantly associated with academic achievement, indicating the importance of punctuality, regular attendance, professional conduct, effective lesson preparation, and adherence to school regulations in promoting students' learning outcomes. Furthermore, the adequacy and quality of school physical facilities significantly influenced students' academic achievement. The study concludes that improving students' academic achievement requires sustained attention to both the physical and psychosocial conditions within public secondary schools. It recommends strengthening school infrastructure, promoting positive school climates, ensuring adequate provision and maintenance of instructional facilities, and enhancing teachers' professional discipline.

Keywords: School environment, academic achievement, school climate, teacher discipline, physical facilities, public secondary schools, Nigeria

Introduction

Education is widely recognized as a fundamental instrument for individual development, social transformation, economic advancement, and national development. The effectiveness of an educational system, however, is determined not merely by access to schooling but also by the extent to which schools provide conditions that enable meaningful teaching and learning. Within secondary education, students' academic achievement remains an important indicator of educational quality because it reflects, to a considerable extent, the interaction between learners, teachers, curriculum, school leadership, resources, and the broader learning environment. Consequently, persistent concerns about unsatisfactory academic achievement among secondary school students have generated increasing interest in the institutional and environmental conditions under which learning occurs.

The school environment represents the totality of physical, social, psychological, organizational, and instructional conditions within which formal education takes place. It encompasses school buildings, classrooms, laboratories, libraries, furniture, instructional resources, sanitation facilities and recreational spaces, as well as less tangible elements such as interpersonal relationships, safety, discipline, teacher behaviour, leadership practices, school culture and the general climate for teaching and learning. School environment is therefore broader than physical infrastructure alone and includes both tangible and

intangible conditions that shape students' educational experiences.

The significance of the school environment derives from the fact that learning does not occur in isolation. Students interact continuously with their physical surroundings, teachers, peers, institutional rules and organizational practices. These interactions can either facilitate or constrain learning. A supportive environment may encourage concentration, participation, regular attendance, positive teacher-student relationships and commitment to academic activities. Conversely, an environment characterized by inadequate infrastructure, overcrowding, insecurity, poor interpersonal relationships, weak discipline or insufficient learning resources may undermine both teaching effectiveness and students' capacity to achieve desired educational outcomes.

Academic achievement refers generally to the extent to which students attain prescribed educational objectives and demonstrate the knowledge and competencies expected at a particular stage of education. It is commonly reflected through examinations, tests, continuous assessment and other measures of educational attainment. Academic achievement is therefore not simply an individual attribute of the learner; it may also reflect the quality of educational opportunities provided by the school.

In Nigeria, the academic performance of secondary school students remains an important concern to parents, teachers, school administrators, educational planners and government.

Secondary education occupies a strategic position between basic and tertiary education and is expected to prepare young people for higher education, employment, responsible citizenship and productive participation in society. When students consistently fail to attain expected learning outcomes, attention must therefore extend beyond individual learners to the institutional conditions under which teaching and learning occur.

One important dimension of the school environment is school climate. School climate describes the character and quality of school life as experienced by students and staff. It encompasses perceptions of safety, fairness, belonging, interpersonal relationships, support, expectations, collaboration and the general emotional atmosphere of the school. Contemporary evidence indicates that positive school and classroom climates are associated with better academic outcomes and stronger student engagement (Demirtas-Zorbaz *et al.*, 2021; Erdem & Kaya, 2024) ^[3, 4].

A positive school climate can contribute to academic achievement through several interconnected mechanisms. Students who feel physically and psychologically safe may participate more confidently in classroom activities and devote greater attention to learning. Respectful teacher–student relationships may encourage students to ask questions, seek assistance and remain engaged when academic tasks become challenging. Similarly, positive relationships among students may promote cooperation rather than conflict. Where learners identify strongly with their school community, attendance, engagement and commitment to schoolwork may improve.

Conversely, a negative school climate can impede learning. Persistent conflict, fear, intimidation, unfair treatment, weak communication and poor relationships between members of the school community can distract students from academic tasks. Teachers working in such environments may also experience diminished morale and reduced commitment. Recent Nigerian policy and monitoring evidence similarly emphasizes school safety and supportive learning conditions as essential elements of educational quality (Federal Republic of Nigeria, 2022; UNICEF, 2024a) ^[6, 10].

A second important dimension is teacher discipline. Teachers occupy a central position in the educational process because they translate curriculum objectives into classroom experiences and provide students with instruction, guidance, assessment and feedback. Professional discipline among teachers may therefore have substantial implications for students' learning. Teacher discipline includes punctuality, regular attendance, proper lesson preparation, effective use of instructional time, completion of assigned responsibilities, adherence to professional ethics and compliance with established school regulations.

Teacher discipline also has a behavioural modelling function. Teachers are authority figures whose conduct can influence students' perceptions of institutional expectations. A teacher who demonstrates punctuality, preparedness, fairness and responsibility communicates the importance of discipline through behaviour rather than instruction alone. In contrast, persistent professional indiscipline can weaken the credibility of school regulations and make it more difficult for administrators to demand corresponding discipline from students.

The third dimension examined in this study is the availability and adequacy of school physical facilities.

Physical facilities constitute the material infrastructure required for educational activities. They include classrooms, desks and chairs, libraries, laboratories, workshops, sanitation facilities, electricity, water supply, recreational spaces and other facilities necessary for effective teaching and learning. Nigerian studies and national assessments continue to identify the adequacy of learning environments, educational amenities and school resources as important contextual conditions for learning (Aman, 2022 ^[1]; UBEC & UNICEF, 2025).

The condition of these facilities can influence both the quantity and quality of learning opportunities available to students. Adequate classrooms can provide an environment conducive to concentration and effective classroom management. Functional laboratories permit students to complement theoretical instruction with practical experiences. Libraries provide opportunities for independent study and access to educational materials beyond classroom instruction. Appropriate furniture may improve students' comfort during lessons, while adequate sanitation and water facilities contribute to health, dignity and regular school participation.

These dimensions of school environment should not necessarily be understood as isolated influences. School climate, teacher discipline and physical facilities may interact in shaping the overall quality of students' educational experiences. A school may possess adequate infrastructure yet experience poor educational outcomes where relationships are hostile or teachers frequently fail to fulfil their responsibilities. Similarly, committed teachers may encounter considerable difficulty achieving optimal outcomes where classrooms, laboratories and instructional facilities are grossly inadequate. Effective schooling therefore requires attention to both the tangible and intangible dimensions of the learning environment.

Statement of the Problem

Students' academic achievement remains a major concern within secondary education because poor learning outcomes have consequences for progression to higher levels of education, employability, human-capital development and national development. Considerable attention is frequently directed towards student-related factors when academic performance declines. However, academic achievement takes place within an institutional environment whose conditions can either facilitate or impede learning.

In some public secondary schools, concerns persist regarding the adequacy of classrooms, laboratories, libraries, furniture and other essential educational facilities. At the same time, differences in school climate, interpersonal relationships, safety, discipline and teachers' professional conduct may produce substantially different learning experiences even among students exposed to similar curricula.

The problem is therefore not simply whether public secondary schools exist or whether students are enrolled, but whether the environment within those schools provides conditions capable of supporting effective teaching and meaningful learning. Against this background, the present study focuses on school climate, teacher discipline and school physical facilities to determine their influence on students' academic achievement in selected public secondary schools in Nigeria.

Purpose of the Study

The main purpose of the study is to investigate the influence of school environment on students' academic achievement in selected public secondary schools in Nigeria. Specifically, the study seeks to:

1. Determine the influence of school climate on students' academic achievement;
2. Examine the influence of teacher discipline on students' academic achievement; and
3. Assess the influence of school physical facilities on students' academic achievement.

Research Questions

1. What influence does school climate have on students' academic achievement in selected public secondary schools?
2. What influence does teacher discipline have on students' academic achievement?
3. What influence do school physical facilities have on students' academic achievement?

Research Hypotheses

H₀₁: School climate has no significant influence on students' academic achievement in selected public secondary schools.

H₀₂: Teacher discipline has no significant influence on students' academic achievement in selected public secondary schools.

H₀₃: School physical facilities have no significant influence on students' academic achievement.

Significance of the Study

The study is expected to provide useful evidence for educational administrators, policymakers, principals, teachers, parents and other stakeholders concerning the role of school environmental conditions in students' academic outcomes. For government and educational authorities, the findings may provide an empirical basis for policies relating to school infrastructure, maintenance, safety and the improvement of teaching and learning conditions.

School administrators may benefit from understanding that effective school management extends beyond physical facilities to the development of a supportive climate and enforcement of professional standards. Teachers may also gain greater awareness of how punctuality, attendance, lesson preparation and professional conduct contribute to students' learning experiences. Furthermore, the study may assist researchers by providing evidence that can support further investigation of the relationships among school climate, teacher behaviour, educational resources and academic achievement in Nigerian secondary education.

Review of Related Literature

The review of related literature is organized under conceptual review, school environment and academic achievement, school climate and academic achievement, teacher discipline and academic achievement, school physical facilities and academic achievement, theoretical framework, empirical review, and summary of the literature and identified gap. The review focuses on the three principal dimensions of school environment investigated in the study: school climate, teacher discipline, and physical facilities.

Conceptual Review

Concept of School Environment

School environment is a multidimensional concept encompassing the physical, social, psychological, organizational, and instructional circumstances in which teaching and learning take place. It extends beyond the geographical location or physical structures of a school to include the relationships, behavioural expectations, institutional practices, material resources, and experiences that characterize everyday school life.

The physical dimension includes classrooms, libraries, laboratories, workshops, furniture, sanitation facilities, electricity, water supply, recreational facilities, instructional equipment, and other infrastructure. The social dimension concerns interactions among teachers, students, school administrators, and other members of the school community. The psychological dimension encompasses perceptions of safety, fairness, acceptance, support, motivation, and emotional security. The organizational dimension relates to school leadership, institutional policies, disciplinary procedures, professional expectations, time management, communication, and administrative effectiveness.

Concept of Academic Achievement

Academic achievement refers to the extent to which students attain prescribed educational goals and demonstrate the knowledge, skills, competencies, and learning outcomes expected from participation in educational activities. It is commonly assessed through examinations, continuous assessment, assignments, projects, standardized tests, and other measures of educational attainment.

Academic achievement is influenced by numerous factors. Some are located within individual students, including motivation, cognitive ability, study habits, self-efficacy, health, and prior knowledge. Others arise from family and socioeconomic circumstances. A third category consists of school-related factors, including teacher quality, school leadership, instructional methods, class size, school climate, discipline, and physical facilities.

School Environment and Students' Academic Achievement

The relationship between school environment and academic achievement is based on the proposition that the conditions under which students learn affect their opportunities, motivation, engagement, and capacity to acquire knowledge. An effective school environment provides the organizational stability, psychological security, instructional resources, and physical conditions necessary for sustained learning.

The mechanisms through which school environment can affect achievement are diverse. The environment influences instructional opportunity, student engagement, teacher effectiveness and time on task. Teacher absenteeism, lateness, disciplinary disruptions, infrastructural breakdowns and overcrowding can reduce the amount of instructional time available to students. These mechanisms suggest that the relationship between school environment and academic achievement is multidimensional rather than attributable to a single environmental characteristic.

School Climate and Students' Academic Achievement

School climate constitutes one of the central dimensions of the school environment examined in the present study. It

represents the general quality and character of school life as perceived and experienced by members of the school community. School climate may encompass safety, interpersonal relationships, fairness, belonging, teacher support, academic expectations, institutional trust, leadership, and shared norms.

Recent international evidence supports the relevance of school climate to educational outcomes. Demirtas-Zorbaz *et al.* (2021) ^[3], in a multilevel meta-analysis, found a statistically significant relationship between school climate and academic achievement. Erdem and Kaya (2024) ^[4] similarly reported significant relationships between school and classroom climate and academic achievement. Zynuddin *et al.* (2023) ^[12] further showed through a systematic review that school climate is closely connected with important non-cognitive student outcomes that support learning.

Safety represents an essential component of school climate. Effective learning requires an environment in which students can concentrate without persistent fear of violence, bullying, harassment, intimidation, or other threats. Psychological and emotional safety are equally relevant because students should be able to ask questions, make mistakes, express ideas, and seek assistance without fear of humiliation.

Relationships between teachers and students constitute another critical component of school climate. Positive teacher–student relationships can increase students’ willingness to participate in classroom activities and seek assistance when experiencing difficulties. Students’ sense of belonging can also strengthen attachment to school and encourage participation in academic and extracurricular activities.

Teacher Discipline and Students’ Academic Achievement

Teacher discipline refers to teachers’ adherence to professional standards, institutional regulations, ethical expectations, and responsibilities associated with teaching. It includes punctuality, regular attendance, preparation for lessons, appropriate classroom management, assessment of students’ work, maintenance of school records, professional integrity, and responsible use of instructional time.

Teacher attendance is fundamental to curriculum implementation. Persistent absenteeism reduces contact hours and can lead to incomplete curriculum coverage. Punctuality is similarly important because frequent lateness may cumulatively result in substantial loss of instructional time. Professional discipline also requires adequate lesson preparation, appropriate assessment and timely feedback.

Teachers occupy positions of authority and are expected to model behaviours that schools seek to cultivate among students. Teachers who demonstrate punctuality, responsibility, fairness, integrity and respect reinforce institutional expectations through their own conduct. Contemporary Nigerian teacher-development initiatives likewise emphasize teacher quality, professional support and effective instructional practice as critical to improved learning (UNICEF, 2024b).

School Physical Facilities and Students’ Academic Achievement

Physical facilities are the material resources and infrastructure that support educational activities. They

include classrooms, libraries, science laboratories, workshops, furniture, information and communication technology resources, sanitation facilities, water supply, electricity, administrative facilities, recreational spaces, and instructional equipment.

Classrooms constitute the principal physical setting for formal instruction. Adequate classroom space, ventilation, lighting, seating and appropriate furniture can facilitate classroom organization and student concentration. Overcrowded classrooms may restrict teachers’ movement and make individualized attention more difficult.

Libraries provide opportunities for independent learning, reading, research and reinforcement of classroom instruction, while laboratories are particularly important for subjects requiring experimentation and practical demonstration. The significance of physical facilities extends beyond their mere presence: adequacy, functionality, accessibility, safety and maintenance are equally important.

Nigerian evidence continues to show the relevance of educational amenities and learning conditions. Aman (2022) ^[1] examined educational amenities and academic performance in selected secondary schools in Rivers State, while the National Assessment of Learning Achievement in Basic Education provides recent large-scale evidence on Nigerian learners and the contexts in which learning occurs (UBEC & UNICEF, 2025).

Theoretical Framework

Bronfenbrenner’s Ecological Systems Theory

The present study can be situated within Bronfenbrenner’s Ecological Systems Theory, which explains human development as occurring through continuous interaction between individuals and the multiple environments in which they participate. For students, the school represents an important microsystem because it is an environment in which they interact directly with teachers, peers, facilities, rules and institutional practices. Applied to this study, school climate represents the relational and psychological environment experienced by learners; teacher discipline represents an important dimension of adult behaviour and institutional functioning; while physical facilities represent the material conditions within which learning takes place.

School Effectiveness Perspective

The study can also be understood through the school effectiveness perspective. School effectiveness research is based on the proposition that schools differ in their capacity to facilitate students’ learning and that these differences can be associated with identifiable institutional characteristics. Characteristics commonly associated with effective schools include purposeful leadership, orderly environments, appropriate academic expectations, effective use of instructional time, adequate resources, monitoring of student progress and positive relationships.

Conceptual Framework of the Study

The conceptual framework proposes that school environment, operationalized through school climate, teacher discipline and physical facilities, influences teaching and learning processes such as instructional time, student engagement, safety and belonging, teacher effectiveness and access to learning resources, which in turn are associated with students’ academic achievement.

Empirical Review

International empirical evidence increasingly supports the relevance of school climate to achievement. Demirtas-Zorbaz *et al.* (2021) ^[3] synthesized evidence across multiple studies and found a statistically significant association between school climate and academic achievement. Erdem and Kaya (2024) ^[4] similarly reported that school and classroom climate are significantly related to academic achievement. Berkowitz *et al.* (2017) ^[2] also synthesized evidence linking school climate, socioeconomic background, inequality and academic outcomes.

Within Nigeria, the relationship between school resources and learning remains a major policy concern. Aman (2022) ^[1] reported evidence on educational amenities and students' academic performance in selected secondary schools in Port Harcourt. UNICEF's recent safe-school monitoring and teacher-development reports also emphasize the importance of safe learning conditions, teacher support and effective instructional environments (UNICEF, 2024a, 2024b). The NALABE 2022 report provides nationally relevant evidence on learning achievement and the contexts within which Nigerian learners are educated (UBEC & UNICEF, 2025).

Summary of Literature and Identified Gap

The literature establishes that school environment is multidimensional and that academic achievement may be influenced by both physical and non-physical characteristics of the educational setting. A positive school climate can provide safety, belonging, supportive interpersonal relationships and conditions conducive to student engagement. Teacher discipline can protect instructional time, promote effective lesson delivery, strengthen professional accountability and provide appropriate behavioural models. Adequate physical facilities can provide the material resources necessary for effective classroom instruction, practical learning, independent study and students' general welfare.

However, these environmental dimensions are frequently considered separately. The present study addresses this gap by examining school climate, teacher discipline and physical facilities simultaneously as dimensions of school environment and assessing their influence on students' academic achievement in selected public secondary schools in Nigeria.

Methodology

Research Design

The study adopted a descriptive survey research design. The design was considered appropriate because the study sought to obtain teachers' perceptions of the influence of existing school environmental conditions on students' academic achievement without manipulating any of the variables. Specifically, the study examined school climate, teacher discipline and school physical facilities.

Area of the Study

The study was conducted in selected public secondary schools in Nigeria. Public secondary schools were selected because they constitute an important component of the Nigerian educational system and provide an appropriate institutional setting for examining differences in school climate, teacher professional discipline and the availability and adequacy of physical facilities.

Population of the Study

The population comprised 1,636 teachers drawn from 119 public secondary schools within the study population. Teachers constituted the respondents because their professional roles provide them with direct and sustained experience of school environmental conditions, including school climate, staff discipline, availability of facilities, classroom conditions and students' learning experiences.

Sample and Sampling Technique

A sample of 250 teachers was used for the study, representing approximately 15.3% of the study population. A simple random sampling technique was employed in selecting respondents. This technique was considered appropriate because it provided eligible teachers within the sampling frame an opportunity for selection.

Instrument for Data Collection

Data were collected using a researcher-developed structured questionnaire titled "Influence of School Environment Questionnaire (ISEQ)." The instrument contained 15 items organized around three dimensions: school climate (Items 1–5), teacher discipline (Items 6–10), and school physical facilities (Items 11–15).

Measurement of the Variables

The principal independent variable was school environment, operationalized through school climate, teacher discipline and school physical facilities. The outcome variable was students' academic achievement, assessed through teachers' responses to questionnaire statements concerning the perceived influence of the three environmental dimensions on students' academic outcomes. The questionnaire used a four-point Likert-type response format: Strongly Agree = 4, Agree = 3, Disagree = 2 and Strongly Disagree = 1. A criterion mean of 2.50 was adopted for interpretation.

Validity of the Instrument

The questionnaire was subjected to expert validation by specialists in Educational Management and Tests and Measurement. The validation process considered clarity and relevance of individual items, correspondence between the items and research objectives, adequacy of coverage of the three constructs, and suitability of the response format.

Reliability of the Instrument

The reliability of the instrument was established through a trial test involving 25 teachers from secondary schools outside the sampled population. Data obtained from the trial administration were analysed using Cronbach's alpha, yielding a reliability coefficient of 0.83. This indicated satisfactory internal consistency.

Procedure for Data Collection

The questionnaire was administered to the sampled teachers in the selected public secondary schools. Respondents were informed of the academic purpose of the study and provided with appropriate instructions for completing the questionnaire. Participation was voluntary and responses were treated confidentially.

Method of Data Analysis

Data were analysed using descriptive and inferential statistics. Mean and standard deviation were used to answer

the research questions. A criterion mean of 2.50 was used for decision-making. The three hypotheses were tested using the Chi-square (χ^2) test at the 0.05 level of significance.

Ethical Considerations

Ethical principles applicable to educational survey research were observed. Participation was voluntary, information supplied was used for research purposes, and responses were reported in aggregate form without personally identifying respondents.

Methodological Note

The methodology retains the core parameters of the dataset: population = 1,636 teachers, sample = 250 teachers, 119 schools, a 15-item ISEQ, a four-point response structure, a 2.50 criterion mean, Cronbach's $\alpha = 0.83$, descriptive analysis using mean and standard deviation, and hypothesis testing using Chi-square at $\alpha = .05$. Because the instrument

captures teachers' perceptions rather than linking environmental measures directly to individual students' examination scores, the findings are interpreted as evidence of perceived relationships rather than direct causal estimates.

Results and Discussion

Results

This section presents the results according to the three research questions and corresponding hypotheses. Mean and standard deviation were used to answer the research questions, with 2.50 as the criterion mean, while the hypotheses were evaluated using Chi-square (χ^2) statistics at the 0.05 level of significance.

Research Question One: What influence does school climate have on students' academic achievement?

Table 1: Mean Ratings and Standard Deviations on the Influence of School Climate on Students' Academic Achievement (N = 250)

Item	School climate indicator	SA	A	D	SD	Mean	Std. Dev.	Decision
1	Students who feel safe, cared for and supported have better academic achievement	120	68	43	19	3.16	0.97	Accepted
2	Students' sense of security within the school environment influences their academic achievement	131	93	15	11	3.38	0.79	Accepted
3	Positive interpersonal relationships and optimal learning opportunities increase students' achievement	101	89	39	21	3.08	0.95	Accepted
4	A culturally supportive school climate can significantly shape students' academic achievement	112	100	24	14	3.24	0.85	Accepted
5	Students in schools with a better climate have higher achievement and better socio-emotional outcomes	78	131	24	17	3.08	0.82	Accepted
	Cluster Mean/SD					3.19	0.88	Accepted

The results show that all five items recorded mean scores above the criterion mean of 2.50. The mean scores ranged from 3.08 to 3.38. The highest-rated item concerned students' sense of security within the school environment (M = 3.38, SD = 0.79), followed by the influence of a culturally supportive school climate (M = 3.24, SD = 0.85).

The overall cluster mean of 3.19 (SD = 0.88) indicates that respondents perceived school climate as influencing students' academic achievement.

Research Question Two: What influence does teacher discipline have on students' academic achievement?

Table 2: Mean Ratings and Standard Deviations on the Influence of Teacher Discipline on Students' Academic Achievement (N = 250)

Item	Teacher-discipline indicator	SA	A	D	SD	Mean	Std. Dev.	Decision
6	Lack of discipline affects students' academic achievement and progress	93	99	31	27	3.03	0.97	Accepted
7	Indiscipline among teachers adversely affects students' academic achievement	103	76	53	18	3.06	0.96	Accepted
8	Serious forms of professional misconduct constitute threats to students' achievement	114	68	47	21	3.10	0.99	Accepted
9	Lack of punctuality and absence from classes influence students' academic achievement	152	64	21	13	3.42	0.85	Accepted
10	Effective discipline in school contributes to good academic achievement	119	84	30	17	3.22	0.91	Accepted
	Cluster Mean/SD					3.17	0.94	Accepted

All five items recorded mean values greater than the criterion mean of 2.50. The strongest response concerned punctuality and absence from classes (M = 3.42, SD = 0.85). The cluster mean of 3.17 (SD = 0.94) indicates that respondents generally perceived teacher discipline as an

important factor associated with students' academic achievement.

Research Question Three: What influence do school physical facilities have on students' academic achievement?

Table 3: Mean Ratings and Standard Deviations on the Influence of School Physical Facilities on Students' Academic Achievement (N = 250)

Item	Physical-facility indicator	SA	A	D	SD	Mean	Std. Dev.	Decision
11	Adequate infrastructure facilitates learning and academic achievement	100	92	38	20	3.08	0.94	Accepted
12	Inadequate facilities and overcrowded classrooms adversely affect achievement	86	111	32	21	3.05	0.90	Accepted
13	Provision of school facilities facilitates teaching and	122	57	43	28	3.09	1.05	Accepted

	learning and improves achievement							
14	Physical facilities are important contributors to students' academic achievement	84	104	39	23	3.00	0.93	Accepted
15	Unattractive school buildings and overcrowded classrooms adversely affect achievement	90	98	44	18	3.04	0.91	Accepted
	Cluster Mean/SD					3.05	0.95	Accepted

All five physical-facility items had mean scores above 2.50. Their means ranged from 3.00 to 3.09, with an overall cluster mean of 3.05 (SD = 0.95). The results therefore indicate that respondents perceived the availability and adequacy of physical facilities as relevant to students' academic achievement.

Test of Hypotheses

Hypothesis One

H₀₁: School climate has no significant influence on students' academic achievement. The reported Chi-square value was $\chi^2 = 139.99$. Based on the study's significance criterion, the null hypothesis was rejected at the 0.05 level, indicating a statistically significant reported relationship between school climate and students' academic achievement.

Hypothesis Two

H₀₂: Teacher discipline has no significant influence on students' academic achievement. The reported Chi-square value was $\chi^2 = 156.28$. The null hypothesis was rejected at the 0.05 level, indicating a statistically significant reported relationship between teacher discipline and students' academic achievement.

Hypothesis Three

H₀₃: School physical facilities have no significant influence on students' academic achievement. The reported Chi-square statistic was $\chi^2 = 133.06$. The null hypothesis was rejected at the 0.05 level, indicating a statistically significant reported relationship between school physical facilities and students' academic achievement.

Summary of Findings

1. School climate was positively perceived as influencing students' academic achievement, with a cluster mean of 3.19 (SD = 0.88), and the corresponding hypothesis was reported as statistically significant ($\chi^2 = 139.99$).
2. Teacher discipline recorded a cluster mean of 3.17 (SD = 0.94), with a statistically significant result reported for the corresponding hypothesis ($\chi^2 = 156.28$).
3. School physical facilities recorded a cluster mean of 3.05 (SD = 0.95), and the corresponding hypothesis was also reported as statistically significant ($\chi^2 = 133.06$).

Discussion of Findings

School Climate and Students' Academic Achievement

The first major finding indicates that school climate is perceived as having an important influence on students' academic achievement. The cluster mean of 3.19 was above the criterion mean of 2.50. Particularly noteworthy is the high mean score associated with students' sense of security (M = 3.38). Students who perceive their schools as safe and supportive may be better positioned to concentrate on academic activities, participate in classroom instruction, interact with teachers and peers, and develop a stronger sense of belonging. This pattern is consistent with international meta-analytic evidence linking positive school

climate with academic achievement (Demirtas-Zorbaz *et al.*, 2021; Erdem & Kaya, 2024) ^[3, 4].

Teacher Discipline and Students' Academic Achievement

The second finding shows that respondents perceived teacher discipline as influential to students' academic achievement. The cluster mean of 3.17 exceeded the criterion mean. The highest individual mean concerned punctuality and absence from classes (M = 3.42, SD = 0.85). Instructional time represents a finite resource, and persistent lateness or absence from scheduled lessons reduces the amount of time available for curriculum implementation. Teacher discipline extends beyond attendance and punctuality to lesson preparation, classroom management, assessment, maintenance of records, compliance with regulations and professional ethics.

School Physical Facilities and Students' Academic Achievement

The third finding indicates that respondents perceived school physical facilities as influential to students' academic achievement. All five items exceeded the 2.50 criterion, producing a cluster mean of 3.05 (SD = 0.95). Appropriate classrooms, furniture, libraries, laboratories, instructional materials, sanitation facilities and other infrastructure provide the physical foundation upon which educational activities take place. Nigerian evidence on educational amenities and national learning assessments reinforces the importance of the learning environment and school resources (Aman, 2022 ^[1]; UBEC & UNICEF, 2025).

Overall Discussion

Taken collectively, the findings indicate that the school environment is multidimensional. The cluster means were 3.19 for school climate, 3.17 for teacher discipline and 3.05 for physical facilities. These values should be interpreted as separate construct summaries rather than as a formal ranking of causal importance because the study was not designed to estimate comparative effect sizes. The findings support an integrated school-improvement strategy combining psychosocial, professional and material dimensions. Because the study used a teacher-perception questionnaire rather than directly linking independently measured environmental indicators with individual students' examination scores, the results should be interpreted as evidence that teachers perceived these school environmental factors as related to academic achievement, not as definitive causal estimates.

Conclusion and Recommendations

Conclusion

The study investigated the influence of school environment on students' academic achievement in selected public secondary schools in Nigeria, focusing specifically on school climate, teacher discipline and school physical facilities. Based on the responses of the 250 teachers, all

three dimensions recorded cluster means above the 2.50 criterion: school climate ($M = 3.19$, $SD = 0.88$), teacher discipline ($M = 3.17$, $SD = 0.94$), and physical facilities ($M = 3.05$, $SD = 0.95$). The corresponding hypothesis tests were also reported as statistically significant.

The study therefore concludes that teachers perceive the quality of the school environment as an important factor associated with students' academic achievement. A safe and supportive school climate, positive interpersonal relationships, students' sense of security and belonging, professionally disciplined teachers, and functional educational infrastructure are important components of an environment conducive to teaching and learning.

However, because the study measured teachers' perceptions rather than directly linking objectively measured school environmental characteristics with individual students' examination scores, its findings should be interpreted as evidence of perceived associations rather than definitive causal effects.

Recommendations

1. School administrators should deliberately promote a positive and supportive school climate by strengthening practices that promote students' physical and psychological safety, fairness, mutual respect, inclusion, positive teacher–student relationships and a strong sense of belonging.
2. Educational authorities should strengthen mechanisms for promoting teachers' professional discipline, including regular attendance, punctuality, adequate lesson preparation, effective utilization of instructional periods, timely assessment of students' work and compliance with professional and ethical standards.
3. Government and relevant educational authorities should prioritize the provision, rehabilitation and maintenance of essential school facilities, particularly adequate classrooms, functional science laboratories, libraries, appropriate furniture, sanitation facilities, water, electricity and instructional materials.
4. Overcrowding in classrooms should be progressively reduced by aligning student enrolment with available classroom capacity and providing additional classrooms and teaching resources where required.
5. School improvement programmes should integrate physical and psychosocial interventions rather than treating them separately. Infrastructure investment should be accompanied by measures to improve school climate, professional accountability, instructional practices and effective utilization of available facilities.
6. Regular monitoring and evaluation of school environmental conditions should be institutionalized. Education ministries, school boards and administrators should periodically assess school climate, teacher attendance and punctuality, infrastructure functionality, classroom conditions and availability of learning resources.
7. Further research should employ objective measures of students' academic achievement and, where feasible, longitudinal or multilevel designs to provide stronger evidence regarding relationships between school environmental factors and academic outcomes.

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