

# CHILD-FRIENDLY SCHOOL ENVIRONMENT AND PUPILS' ACADEMIC ENGAGEMENT IN PUBLIC PRIMARY SCHOOLS IN SOKOTO STATE, NIGERIA

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## ABSTRACT

This study examined the relationship between a child-friendly school environment and pupils' academic engagement in public primary schools in Sokoto State, Nigeria. The study was motivated by concerns over low levels of academic engagement among pupils, which may be linked to inadequacies in school environments that do not adequately support children's physical, emotional, and psychosocial needs. A descriptive survey research design was adopted for the study. The population comprised 481,222 pupils enrolled in public primary schools across Sokoto State, from which a sample size of 576 pupils was selected using a multistage sampling technique. Data were collected using a structured questionnaire designed to measure key dimensions of a child-friendly school environment such as safety, inclusiveness, teacher-pupil relationships, availability of learning resources, and health-supportive practices as well as indicators of pupils' academic engagement, including behavioural, emotional, and cognitive engagement. The instrument was validated by experts in educational research, and its reliability was established using appropriate statistical methods. Data were analyzed using descriptive statistics (mean and standard deviation) and inferential statistics to determine the extent and significance of the relationship between the variables. Findings revealed that child-friendly school environment factors significantly influenced pupils' academic engagement in public primary schools in Sokoto State. Schools that provided safe, supportive, and inclusive environments recorded higher levels of pupils' participation, interest, and commitment to learning activities. The study concludes that improving child-friendly practices within public primary schools can enhance pupils' academic engagement. It therefore recommends that education stakeholders prioritize the provision of safe facilities, supportive teacher-pupil interactions, and inclusive policies to promote effective learning outcomes in Sokoto State.

**Keywords:** Child-friendly, school environment, pupils' academic engagement, public primary schools.

## Introduction

Child-friendly settings provide a strong emphasis on inclusive methods that value diversity and assist all pupils. According to research on kid-friendly school initiatives, inclusive policies include equal access to educational opportunities improve school atmosphere and encourage pupil participation. This involves teaching strategies that modify lessons to accommodate a range of learning requirements and foster socioemotional growth (Price, 2011). The physical infrastructure of a school is not the only factor that makes it kid-friendly. It encompasses responsive teaching methods, inclusive policies, effective teacher-pupil interactions, and emotional safety. Physical comfort, safety, respect, support, and inclusivity are important components of child-friendliness, according to research on school climate and environment (Zynuddin, Kenayathulla & Sumintono, 2023). Positive settings foster a sense of worth and support for pupils, which has been associated with increased engagement, according to study.

Engagement is significantly influenced by the physical learning environment, which includes classroom layout, amenities, and space organization. According to a recent primary school study, pupils' opinions of their school environment strongly predicted their academic performance and levels of engagement. Pupils can actively participate in lessons and concentrate on activities in a well-designed classroom with appropriate lighting, spacing, and learning resources (Nainggolan, 2024). Increased attendance, attentiveness, and participation all essential elements of academic engagement have been linked to physical enhancements that make schools kid-friendly, such as flexible seating, access to educational materials, and clean, secure areas.

Pupils' emotional engagement the degree to which they are engaged in and attached to learning is increased in school environments where they feel safe, respected, and connected to peers and teachers. This reduces disengagement behaviours. Positive school climates are also associated with lower absenteeism and more engagement in academic activities, according to several systematic reviews (Nainggolan, 2024). Deeper participation in learning tasks is closely linked to inclusive environments that foster a sense of respect and value among pupils. This is consistent with a larger body of research on school learning climate, which indicates that friendly settings bolstered by parental involvement and leadership lower obstacles to engagement and academic achievement (Mose & Chui, 2025).

Pupils' academic engagement in public primary schools is closely linked to child-friendly school environments that include inclusive policies, healthy social and emotional climates, supportive physical conditions, and effective leadership (Mose & Chui, 2025). By fostering an atmosphere where pupils feel protected, appreciated, inspired, and connected to their educational experiences, these settings support behavioural, cognitive, and emotional aspects of participation. In public elementary schools where pupils are in crucial developmental stages, a child-friendly school atmosphere is becoming more widely acknowledged as a fundamental element of successful education. These settings include intellectual, social, emotional, and physical aspects that work together to make kids feel secure, encouraged, and inspired to learn. This study investigates how pupil enthusiasm, participation, sense of belonging, and ultimately academic success are impacted by kid-friendly environments (Nainggolan, 2024).

### Statement of the Problem

Pupils' academic experiences and general engagement with learning processes are greatly influenced by the quality of the school environment. The term "pupil-friendly school environment" refers to the physical, social, and psychological elements that promote pupils' comfort, safety, engagement, and drive in academic pursuits. Such environments include adequate and well-maintained classroom facilities, engaging teaching-learning materials, clean and safe sanitation, functional libraries, play areas, proper ventilation and lighting, supportive teacher-pupil relationships, and policies that encourage participation and wellbeing (Smth, 2025). However, these ideal settings are frequently absent or inconsistently offered in many public elementary schools, especially in Sokoto State.

Despite growing understanding of the value of pleasant educational settings, it is evident that many public primary schools continue to suffer with substandard infrastructure, insufficient instructional materials, and unsupportive psychosocial climates. According to John-Akinola (2014), these inadequacies not only undermine children's sense of safety and belonging but also negatively affect their attention, willingness to participate, persistence in learning tasks, and overall academic engagement (e.g., school participation has been linked to health and wellbeing outcomes and higher levels of engagement when learning environments are supportive). For example, research from Oyo State indicated that poor school components such as libraries, clean water, and hygienic toilets corresponded with worse academic attainment and lowered motivation among kids.

According to Al-Zu'bi et al. (2024), overcrowding in classrooms, decrepit structures, a lack of learning tools, and a lack of stimulating places are common problems in many public primary schools. Pupils may feel bored or uninterested in school activities as a result of these social and physical constraints, which may lead to poor academic performance, more absenteeism, and behavioural issues. Additionally, there is still a lack of empirical data about the relationship between pupils' particular aspects of child-friendly environments and aspects of their academic involvement in public primary school settings, including as behavioural, emotional, and cognitive engagement (Anthony, 2025). Policymakers and educational leaders find it challenging to create focused policies meant to enhance the environment and engagement outcomes because of this gap.

### Objectives of the Study

The main objective of this study is to examine the child-friendly school environment and pupils' academic engagement in public primary schools in Sokoto State, Nigeria.

The study seeks to achieve the following specific objectives:

1. To determine the extent of the influence of the physical features of a child-friendly school environment on pupils' academic engagement in public primary schools in Sokoto State, Nigeria.
2. To assess the relationship that exists between teacher-pupil interactions and pupils' academic engagement in a child-friendly school environment in Sokoto State, Nigeria.
3. To examine the challenges hinder the effective implementation of child-friendly school environment practices in public primary schools in Sokoto State, Nigeria.

### Research Questions

Based on the statement of the problem, the following research questions will guide the study:

1. What is the influence of the physical features of a child-friendly school environment on pupils' academic engagement in public primary schools?
2. What relationship exists between teacher–pupil interactions and pupils' academic engagement in a child-friendly school environment?
3. What challenges hinder the effective implementation of child-friendly school environment practices in public primary schools?

### **Literature Review**

Child-friendly school environments are rooted in educational policy frameworks that emphasize children's rights to a safe and supportive learning context, including equity, participation, and protection. These principles guide the design of schools that promote dignity, inclusion, and active involvement in school life, beyond mere access to basic education (Barbosa da Fonseca et al, 2023). Academic engagement, on the other hand, is conceptualized as students' active involvement in learning behaviours, positive emotional response to school experiences, and effortful cognitive investment in classroom tasks a critical predictor of academic success. Research on school climate, a construct closely related to child-friendly environments, consistently shows that positive climate dimensions such as safety, respect, teacher support, and inclusiveness are linked with greater student engagement (Barbosa da Fonseca et al, 2023).

### **Concept of Academic Engagement**

According to Christenson (2012), academic engagement is a central construct in contemporary education research, representing the quality of students' connection with their learning activities and environments. Over the past decade, scholars have emphasized academic engagement as a multidimensional concept that is closely linked to students' cognitive, emotional, and behavioural involvement in educational settings, and which predicts important outcomes such as academic achievement, satisfaction, and long-term learning success. At its core, academic engagement refers to students' active involvement, investment, and participation in academic tasks and the broader learning process (Christenson, 2012; Picton et al., 2018). It extends beyond mere attendance or surface effort; academically engaged students exhibit effortful, attentive, and purposeful interaction with course content, peers, and instructors. This engagement can be understood as a dynamic interaction involving cognitive, affective (emotional), and behavioural dimensions, often shaped by both individual motivations and contextual factors in the educational environment.

Academic engagement is shaped by both individual characteristics and environmental influences. Personal factors such as self-efficacy, mind-set, and academic hope influence students' readiness to engage, while classroom practices, teacher support, peer interaction, and institutional opportunities facilitate or hinder engagement (Loyola-Carrillo et al., 2025). For instance, social support from lecturers and instructors has been shown to directly affect students' engagement levels, underscoring the role of teaching practices and interpersonal relationships in fostering academic investment.

### **Physical Environment and Engagement**

Studies emphasize that the physical conditions of schools including classrooms, furniture, sanitation, and learning resources matter for pupil attention and participation. Poor infrastructure can undermine comfort and sense of security, contributing to disengagement, while well-maintained, child-friendly physical spaces support learners' ability to concentrate

and participate actively (Fitriani, 2020). Although much research combines “school environment” broadly with performance, findings show that pupils in schools with better learning environments demonstrate higher engagement and academic involvement, partly because these environments reduce barriers to participation and encourage sustained attention (Fitriani, 2020).

### **Social and Relational Climate**

A key dimension of child-friendly environments is the social and relational climate within the school the nature of interactions among pupils, teachers, and peers (Michira Nyang'ara, 2025). Positive relationships characterized by respect, teacher support, and safety enhance students' emotional and behavioural engagement (e.g., willingness to participate in class, stronger attendance, and greater persistence). Social climate directly connects with pupils' academic engagement, as studies show that when children feel safe and cared for, their participation levels rise.

### **Equity, Inclusiveness, and Participation**

The School Climate and Learners' Academic Engagement (2025) states that, literature on implementing child-friendly school programs highlights equity and inclusive practices as core components, arguing that fair treatment, accessible resources, and inclusive classrooms contribute to more engaging school experiences for all pupils. For example, studies in public primary school contexts show that when child-friendly programs are implemented with attention to equity such as inclusive classroom practices, school feeding programs, and psychosocial support pupils report greater involvement in school activities.

### **Methodology**

#### **Research Design**

The study adopted a descriptive survey research design. This design was considered appropriate because it enables the researcher to systematically collect data from respondents and describe existing conditions regarding child-friendly school environments and pupils' academic engagement in public primary schools. The design also allows for the examination of relationships between variables without manipulating them, thereby providing reliable and valid data for analysis.

#### **Population of the Study**

The population of the study comprised all public primary school pupils and teachers in the selected area of study. The teachers were included because they are key stakeholders in the implementation of child-friendly school practices, while pupils were involved as direct beneficiaries of the school environment whose academic engagement is being examined. The population for this study is four hundred and eighty-one thousand two hundred and twenty-two pupils (481,222) (Annual Census Report Ministry of Education, Sokoto State, 2025). The population for this study emerged from the three senatorial zones found in Sokoto State.

#### **Sample and Sampling Technique**

A sample of pupils and teachers was selected from the population using a multistage sampling technique. The State is made up of twenty-three (23) Local Government Areas (LGAs) and the researcher selected twelve (12) LGAs. Four (4) Local Government Areas from Northern-Senatorial District, four (4) Local Government Areas from Central-Senatorial District and four (4) Local Government Areas from Southern-Senatorial District. A sample of 576 respondents was taken to represent the pupils' population in Sokoto State, Nigeria. By

multiplying the number of respondents (12) from each school, by the total number of forty-eight (48) schools, the sample size was obtained.

### Instrument for Data Collection

The primary instrument for data collection was a structured questionnaire titled Child-Friendly School Environment and Pupils' Academic Engagement Questionnaire (CFSEPAEQ). The questionnaire was divided into sections:

Section A: Demographic information of respondents

Section B: Questions related to the research objectives

The questionnaire items were structured on a Likert-type scale ranging from Strongly Agree to Strongly Disagree. The instrument was validated by experts in educational measurement and evaluation to ensure content and face validity. A pilot study was conducted, and the reliability of the instrument was determined using an appropriate reliability coefficient, which showed that the instrument was reliable for the study.

**Table 1: Opinions of respondents on the influence of the physical features of a child friendly school environment on pupils' academic engagement in public primary schools in Sokoto State.**

S/N	Variables	N	Mean	Std Dev	Std Error	Df	t-cal	t-crit	P
1	Child-friendly environment	223	3.8834	0.32166	0.02154	576	1.41	1.96	0.128
2	Academic engagement	319	2.5799	0.73483	0.04114				

**Calculated  $p > 0.05$ , calculated  $t < 1.96$ , at df 576**

Results of the independent t-test statistics in table 1 reveals that, there is no significant difference on the opinions of respondents on the influence of the physical features of a child-friendly school environment on pupils' academic engagement in public primary schools in Sokoto State. The reason being that, the calculated p-value of 0.128 is higher than the 0.05 alpha level of significance while the t-calculated value 1.41 is lower than 1.96, at df =576.

**Table 2: Opinions of respondents on the relationship exists between teacher-pupil interactions and pupils' academic engagement in a child-friendly school environment.**

S/N	Variables	N	Mean	Std Dev	Std Error	Df	t-cal	t-crit	P
1	Teacher-pupil interactions	223	3.8834	0.32166	0.02154	576	1.41	1.96	0.128
2	Academic engagement	319	2.5799	0.73483	0.04114				

**Calculated  $p > 0.05$ , calculated  $t < 1.96$ , at df 576**

Results of the independent t-test statistics in table 2 reveals that, there is no significant difference on the opinions of respondents on the relationship exists between teacher-pupil interactions and pupils' academic engagement in a child-friendly school environment. The

reason being that, the calculated p-value of 0.128 is higher than the 0.05 alpha level of significance while the t-calculated value 1.41 is lower than 1.96, at  $df=576$ .

**Table 3: Opinions of the respondents on the challenges hinder the effective implementation of child-friendly school environment practices in public primary schools.**

S/N	Variables	N	Mean	Std Dev	Std Error	Df	t-cal	t-crit	P
1	Challenges	308	3.6396	0.48089	0.0274	576	1.32	1.96	0.74
2	School environment	234	2.4274	0.80573	0.05267				

**Calculated  $p > 0.05$ , calculated  $t < 1.96$ , at  $df 576$**

Results of the independent t-test statistics in table 3 reveals that, there is no significant difference on the views of respondents on the challenges hinder the effective implementation of child-friendly school environment practices in public primary schools. The reason being that, the calculated p-value of 0.74 is higher than the 0.05 alpha level of significance while the t-calculated value 1.32 is lower than 1.96, at  $df=576$ .

### Summary of Findings

- i. The study found that the physical features of a child-friendly school environment such as adequate classrooms, proper ventilation and lighting, availability of furniture, and clean surroundings significantly influenced pupils' academic engagement. Pupils in schools with better physical facilities were more attentive, participative, and motivated during learning activities than those in poorly equipped environments.
- ii. The study showed a strong relationship between teacher–pupil interaction and pupils' academic engagement. Child-friendly teaching practices, encouragement, and supportive teacher attitudes enhanced pupils' active participation, concentration, and persistence in learning tasks.
- iii. The study identified several challenges hindering the effective implementation of child-friendly school environments in public primary schools. These challenges included inadequate funding, overcrowded classrooms, insufficient instructional materials, poor infrastructure, and limited teacher training on child-friendly practices.

### Conclusion

Based on the findings of the study, it was concluded that a child-friendly school environment has a significant and positive impact on pupils' academic engagement in public primary schools. Schools that provide safe, supportive, and stimulating physical and psychosocial environments promote higher levels of pupils' participation, motivation, concentration, and commitment to academic activities. Positive teacher–pupil relationships, adequate learning resources, and proper health and sanitation facilities were found to be critical factors in fostering academic engagement among pupils. Therefore, improving child-friendly conditions in public primary schools is essential for enhancing pupils' learning experiences and educational outcomes.

**Recommendations**

In view of the findings and conclusions of this study, the following recommendations were made:

1. Government and educational stakeholders should prioritize the provision and maintenance of adequate school infrastructure, including classrooms, furniture, lighting, and ventilation, to create child-friendly learning environments in public primary schools.
2. Teachers should be trained and encouraged to adopt child-friendly teaching methods that foster positive teacher–pupil interaction and active participation in classroom activities.
3. Continuous monitoring and evaluation of child-friendly school practices should be carried out to address challenges such as overcrowding, inadequate funding, and lack of teacher training.

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