



## Managing School Climate Determinants for Improved Academic Performance of Students in Public Senior Secondary Schools in Rivers State

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### Abstract

Recognizing that a positive school climate is pivotal for effective teaching and learning, which culminates in improved academic performance of students, the study explored managing school climate determinants for improved students' academic performance in public senior secondary schools in River State, Nigeria. The study had five specific objectives, five research questions, with five corresponding null hypotheses. A descriptive survey research design was adopted, and the population was the 6,166 staff (333 principals and 5,833 teachers) of the 333 public senior secondary schools in Rivers State. The sample for the study was 320 respondents comprising 30 principals and 290 teachers, representing 5.2% of the total population of the study and it was determined using the proportionate stratified random sampling techniques. The data for the study was collected using a researcher-designed structured questionnaire titled "Managing School Climate Determinants for Improved Students' Academic Performance Questionnaire (MSCDISAPQ)". The reliability of the instrument was determined using test-retest method on a pilot sample of the study population. Pearson's Product Moment Correlation statistics in SPSS was used to analyse the test-retest data, and a reliability coefficient of .78 was obtained. The research questions were descriptively answered using mean and standard deviation statistics while the hypotheses were inferentially tested using independent samples t-test at a significant level of .05. The findings of the study showed that the determinants of school climate for improved students' academic performance in public senior secondary schools in Rivers State included: the physical environment, school leadership, social interactions, and academic optimism. It was further found that no significant difference existed in the principals' and the teachers' opinions on the extent to which these determinants were managed for improved students' academic performance except for academic optimism. The study concluded that proactive management of school climate determinants can substantially improve student achievement. It was recommended among others that stakeholders of public senior secondary schools should be actively involved in the management of the physical environments of schools through collaborative provision, utilization and management of facilities and ensuring that school environments are safe and conducive to support students' emotional, psychological, and leaning needs.

**Keywords:** School Climate, Student Performance, School Climate Determinants, Physical Environment, Leadership, Social Interactions, Academic Optimism.

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## INTRODUCTION

The academic performance of students in secondary schools is a critical indicator of a nation's educational progress and socio-economic development. In Nigeria, where education is considered a powerful tool for individual and national growth, there has been increasing concern over the fluctuating academic outcomes among secondary school students. While various factors influence students' academic achievements, one of the most significant yet often overlooked is the school climate. School climate refers to the quality and character of school life, encompassing norms, values, social interactions, teaching and learning practices, and organizational structures (National School Climate Council, 2017). A positive school climate has been widely acknowledged as a catalyst for effective teaching and learning processes, fostering an environment where students are more likely to thrive academically.

In the Nigerian context, the importance of school climate is particularly pressing given the prevailing challenges in the education sector. Many public secondary schools face issues such as overcrowded classrooms, inadequate infrastructure, poor learning materials, teacher absenteeism, and weak administrative support (Ajao, 2018). These elements collectively contribute to a poor school climate, which can demotivate students and hinder academic success. Conversely, a conducive school climate characterized by supportive teacher-student relationships, student engagement, safety, and mutual respect has been shown to enhance student motivation, academic self-efficacy, and performance (Ali et al., 2014).

Studies have established a robust relationship between school climate and students' academic performance. For instance, Freiberg cited in Ajisafe and Togunloju (2023) emphasized that students perform better in environments where they feel valued, safe, and respected. A positive school climate fosters emotional and psychological security, which is essential for cognitive development and academic engagement. In Nigeria, the application of these findings becomes even more critical in addressing systemic educational disparities across urban and rural settings. While urban schools may benefit from better facilities and teaching personnel, rural schools often contend with underfunding, poorly trained teachers, and minimal governmental oversight, all of which negatively affect school climate and, by extension, academic outcomes (Uline & Tschannen-Moran, 2018).

Furthermore, the psychosocial aspect of school climate cannot be overemphasized. When students perceive their school environment as supportive, they are more likely to exhibit positive behaviors such as class participation, homework completion, and cooperation with peers and teachers (Thapa et al., 2013). These behaviors are directly linked to academic performance. Nigerian students, like their global counterparts, are influenced by how safe and supported they feel in school settings. A toxic school climate, characterized by bullying, teacher hostility, discrimination, or lack of emotional support, can lead to absenteeism, dropout, and poor academic outcomes (Adeogun & Olisaemeka, 2021).

Given the diverse cultural, social, and economic realities in Nigeria, it is imperative to understand how the different dimensions of school climate affect students' academic performance. These dimensions include physical environment, social relationships, teaching quality, safety, leadership, and academic optimism. Identifying and strengthening these components, policymakers and educators can implement targeted interventions aimed at improving school climate and ultimately boosting academic performance. It is against this background that this study sought to examine school climate as a determinant of students' academic performance in public senior secondary schools in Rivers State.

## **Statement of the Problem**

In recent years, the academic performance of students in public secondary schools in Rivers State has been a source of growing concern for educators, policymakers, and stakeholders in the education sector. Despite the concerted efforts made by principals and teachers to improve student performance in these schools, results often reflect low achievement levels among students, especially in core subjects such as Mathematics, English, and the Sciences. While many studies have focused on factors such as teacher quality, curriculum, and infrastructure, the influence of the school climate is a multidimensional construct encompassing the quality of social interactions, teaching and learning practices, safety, the physical environment, and leadership - remains underexplored in Rivers State.

Despite anecdotal evidence suggesting a link between school climate and academic performance, there is limited empirical research in Nigeria that systematically investigates this relationship, particularly within the public secondary school system. Understanding the extent to which school climate predicts academic performance is essential for designing effective interventions aimed at improving educational outcomes. Therefore, this study sought to examine managing school climate determinants for improved students' academic performance in public senior secondary schools in Rivers State, with a view to informing policy and practice for enhanced educational effectiveness.

## **Aim and Objectives of the Study**

The aim of the study was to explore managing school climate determinant for improved students' academic performance in public senior secondary schools in Rivers State. The specific objectives included to:

- Ascertain the determinants of school climate that need to be managed for improved students' academic performance in public senior secondary schools in Rivers State;
- Examine the extent the physical environment as a determinant of school climate is managed for improved students' academic performance in public senior secondary schools in Rivers State;
- Assess the extent school leadership is utilized as a determinant of school climate for improved students' academic performance in public senior secondary schools in Rivers State;
- Determine the extent social interactions as determinants of school climate are managed for improved students' academic performance in public senior secondary schools in Rivers State;
- Explore the extent academic optimism as a determinant of school climate is managed for improved students' academic performance in public senior secondary schools in Rivers State.

## **Research Questions**

The following research questions were raised to guide the study:

- What are the determinants of school climate that need to be managed for improved students' academic performance in public senior secondary schools in Rivers State?
- To what extent is the physical environment as a determinant of school climate managed for improved students' academic performance in public senior secondary schools in Rivers State?
- To what extent is school leadership utilized as a determinant of school climate for improved students' performance in public senior secondary schools in Rivers State?
- To what extent are social interactions as determinants of school climate managed for improved students' academic performance in public senior secondary schools in Rivers State?
- To what extent is academic optimism as a determinant of school climate managed for improved students' academic performance in public senior secondary schools in Rivers State?

## **Hypotheses**

The following null hypotheses were formulated and tested at 5% level of significance to guide the study:

- There is no significant difference in the mean ratings of principals and teachers on the determinants of school climate that need to be managed for improved students' academic performance in public senior secondary schools in Rivers State.
- There is no significant difference in the mean ratings of principals and teachers on the extent the physical environment as a determinant of school climate is managed for improved students' academic performance in public senior secondary schools in Rivers State.
- There is no significant difference in the mean ratings of principals and teachers on the extent school leadership is utilized as a determinant of school climate for improved students' performance in public senior secondary schools in Rivers State.
- There is no significant difference in the mean ratings of principals and teachers on the extent social interactions as determinants of school climate are managed for improved students' academic performance in public senior secondary schools in Rivers State.
- There is no significant difference in the mean ratings of principals and teachers on the extent academic optimism as a determinant of school climate is managed for improved students' academic performance in public senior secondary schools in Rivers State.

## **CONCEPTUAL REVIEW**

### **Students' Academic Performance**

Students are primarily in school for the purpose of academics. Academics in this regards refers to the pursuit of knowledge and intellectual endeavours. It encompasses various aspects and activities, including learning (acquisition of knowledge, skills, and understanding through experience and study), teaching (the provision of instruction and guidance by a more knowledgeable other called the teacher), research, assessment, curriculum (learning experiences), pedagogy, scholarship, among others, which tend towards the full development of students'

potentials in cognitive (head), affective (heart), and psychomotor (bodily) dimensions. The degree to which students are actually fulfilling the purpose for which they are in school therefore describes the concept of academic performance.

Hornby cited in Eze et al. (2015) viewed academic performance as the ability of a student to reach a set academic goal through efforts, skill or courage. Ali (2013) stated that academic performance is the outcome of education that indicates how well a student or class of students is doing academically. Nwankwoala (2021) defined academic performance as the observable and measurable behaviour of students at any particular point in time. He further buttressed that it is a measure of the extent to which a student, teacher or institution has achieved their short or long term educational goals. This measure is commonly determined through examination, continuous assessment or common entrance examinations in public senior secondary schools in Nigeria. Academic performance of public senior secondary school students is thus a computed measure of the students' academic outcomes, and as averred by Eze et al. (2015), it reflects students' academic abilities and efforts.

Students are the products of the school system, and the quality of this product is a reflection of the effectiveness and efficiency of the system. This implies that students' academic performance is a direct reflection of the quality of the school administration. It bears directly on the performance of teachers who are the educators of these students, the school principal who is the instructional leader of the school, and the society and government who are the sponsors of the educational system. As such, improving students' academic performance may only be achieved through appropriate manipulation of the factors that influence students' performance, which in one way or the other are traceable to the stakeholders of the school system. The school climate is one of such factors, and this study focuses on how school climate determinants could be managed for improved student performance in public senior secondary schools in Rivers State.

## **School Climate**

Parts or all of school climate have been variously conceptualized in literature. The most recurring themes include school culture, school environment, ethos, school personality and more (Emu & Nwannunu, 2018; Ojukwu, 2022; Oparaji et al., 2020). School climate refers to the intangibles: physical environment that is conducive to teaching and learning, safe and welcoming; social environment which promotes interaction and communication among students, faculty, staff and the community; emotional environment, which is an affective environment for students, faculty, staff and community that creates self-esteem and a sense of belonging; and academic environment, which is endorsed with learning and self-fulfilment for students, faculty and staff" (Fakunle, 2016, p.48). In other words, school climate comprises the physical and psychological aspects of a school that provide the environment necessary for teaching and learning to take place.

Some other authors described school climate in relation to perceived patterns of school life. For example, Franco (2020) posited that the quality of school in relation to school climate is based on patterns of school life, experiences, norms, goals, values, interpersonal relationships, teaching, learning, leadership practices, and organizational structure. For Purta cited in Emu and Nwannunu (2018), school climate refers to the quality and character of school life or the overall characteristics and atmosphere in the school. It is based on patterns and the safety of the school environment, experiences and principal's leadership practices (Adeyemi cited in Emu & Nwannunu, 2018).

For National School Climate Center (2016), school climate is the quality of school life experienced by students, caregivers, school personnel, and others interacting with the school environment. A positive school climate, then, is one where the school attends to each of the following: (a) fostering safety; (b) promoting a supportive academic, disciplinary, and physical environment; and (c) encouraging and maintaining respectful, trusting, and caring relationships throughout the school community (Enwezor, 2021). Additionally, organizational structures such as socioeconomic status (SES), retention of staff, racial and ethnic diversity of staff and students, and community support may influence climate.

From the knowledge accessed in literature, juxtaposed with the residual knowledge of climate as the average weather condition over a specified period of time, school climate is conceptualized as the prevailing atmosphere, aura, feeling, and perception, experienced by students, staff, and visitors of the school, as a result of the quality of the physical, social, and psychological dimensions and state of the school system, which are often contagious. It is the level of acceptance or repulsion, welcoming or otherwise, warmth or harshness, friendliness or hostility experienced or perceived when one comes in contact with the school, and is often imposed by the quality of the school plant, the quality of the social interactions in the school system, and the quality of academic consciousness of the school. It is the life and character of the school, and as such, seeking opportunities to create or sustain a positive school climate is foundational to continuous improvement efforts in the school system. In this regard, Carpenter cited in Enwezor (2021) had posited that a productive school climate needs good teaching and learning strategies, sufficient instructional materials, richer classroom ecology, pleasant school culture, objective administration, and good school physical structures.

## **Types of School Climate**

School climate, which describes the quality and character of school life as experienced by students, staff, and visitors, encompasses norms, values, interpersonal relationships, teaching and learning practices, and organizational structures (Cohen et al., 2009). Understandably, every stakeholder wants a positive school climate. In educational settings, the type of organizational climate significantly influences teacher performance, affecting motivation, job satisfaction, collaboration, and instructional effectiveness. Literature identifies six major types of organizational climate that influence teachers' performance, and they are examined below:

- *Open Climate:* An open climate is characterized by trust, respect, and open communication among teachers, students, and administrators. It encourages collaboration, autonomy, and professional growth, which positively affects teacher and student performance. Open climate impacts teachers' performance by enhancing motivation, job satisfaction, and teacher innovation in teaching methods. Understandably, teachers and students in an open climate feel supported and are more likely to engage in instructional improvement.
- *Controlled Climate:* In a controlled climate, school leadership emphasizes rules, procedures, and discipline. While this may create order, it can stifle creativity and autonomy (Halpin & Croft cited in Aminu & El-jajah, 2019). A controlled climate can improve performance through structure, but may reduce teacher motivation and initiative if overly rigid. Teachers may comply with expectations but feel limited in pedagogical freedom (Toyin & Okorodudu, 2019).

- *Collegial Climate:* A collegial climate is one where teachers share mutual respect and engage in professional collaboration. Decision-making is often participatory, and there is a strong sense of community. Such a climate encourages knowledge sharing and continuous professional development, leading to improved teacher effectiveness which results in improved student performance. In a collegial climate, it is easy for teachers to frequently engage in peer mentoring and joint lesson planning. Students may also be able to easily engage in peer studies and collaborations.
- *Intimate Climate:* This type of climate is characterized by warm, personal relationships among teachers and between teachers and students, often found in small or close-knit schools. Toyin and Okorodudu (2019) opined that intimate climate improves morale and emotional well-being, fostering a supportive work environment. Teachers feel emotionally supported and are more committed to student success in an intimate climate.
- *Paternalistic Climate:* A paternalistic climate is one where the school leader provides guidance and makes most decisions while showing concern for staff welfare. Teachers may feel cared for but lack decision-making power. Hoy et al. (2011) asserted that a paternalistic climate can create a stable environment but may hinder teacher initiative and innovation. Teachers may perform well within expectations but lack motivation for self-directed improvement.
- *Closed Climate:* A closed climate is marked by distrust, lack of collaboration, and bureaucratic rigidity. It often results in low morale and poor communication. Closed climate reduces teacher performance due to stress, frustration, and low job satisfaction. Teachers in a closed climate may become disengaged, resistant to change, and less effective in the classroom (Toyin & Okorodudu, 2019).

A positive school climate promotes safety, respect, engagement, and high expectations, thereby fostering academic success and emotional well-being. Four broad aspects of school climate are identified with respect to creating a positive school environment for teaching and learning. These include: physical climate (Aminu & El-Jajah, 2019; Ajisafe & Togunloju, 2023; Iordye & Jato, 2023), social climate (Charles-Ogan & Zalmon, 2020), emotional climate (Aminu & El-jajah, 2019; Toyin & Okorodudu, 2019) and academic climate (Thapa et al., 2013). Each of these climate types is examined underleaf:

- *Physical Climate:* This encompasses the school's infrastructure, cleanliness, lighting, ventilation, and overall safety. It is the quality of life of the physical environment of the school. A clean, well-maintained, and safe physical environment significantly affects both learning and teaching (Uline & Tschannen-Moran, 2008). Overcrowded classrooms and poor facilities can detract from student performance and morale. The physical environment of a school is the first point of contact between students and the school. It is the part of the school that everybody sees and passes instant judgement over the school even without yet having an experience with the school. The physical environment and the aura it exudes make the first impression and a lasting impression on the minds of students and everyone who comes in contact with the school. A school that is appropriately sited, with state of the art facilities, and is secure and safe creates a climate that informs teachers' effectiveness and makes teaching and learning comfortable and effective.
- *Social Climate:* The social dimension focuses on relationships within the school, particularly among students, teachers, and administrators. Positive social climates are

marked by mutual respect, inclusivity, and collaboration (Wang & Degol, 2016). Bullying, discrimination, and social exclusion, on the other hand, are indicators of a poor social climate. The social climate of the school determines the quality of interpersonal relationships and social interactions within the school system. It defines the relational aspect of the human elements of the school system, vis-à-vis students, teachers, administrators, parents, visitors, and the community. Social interaction in the context of the study relates to the status of the different strata of relationships that occur within the school community, such as teacher-students, student-student, parent-school, teacher-teacher, among other such natural relationships that ensue by reason of interactions between the human elements of the school system. It is noteworthy that these interactions are only able to result in desirable students' learning outcomes when they are cordial, warm and friendly, rather than harsh, cold and hostile.

- *Academic Climate*: This refers to the learning environment, including expectations for academic performance, instructional quality, and support for learning. A strong academic climate is characterized by high expectations, teacher efficacy, and student motivation (Thapa et al., 2013). Schools that prioritize academic achievement often provide structured curricula, ongoing assessments, and targeted support for struggling students.
- *Emotional Climate*: Emotional climate includes the feelings of safety, belonging, and emotional support experienced by members of the school community. When students feel emotionally safe, they are more likely to participate, take academic risks, and engage in school activities (Bear et al., 2015). Teachers also benefit from emotionally supportive environments, which enhance job satisfaction and reduce burnout.

## **Determinants of School Climate**

The climate of a school is shaped by several factors. These determinants operate at several levels, some of which include school level, individual level, community or societal level, among others. Literature highlighted these determinants under discrete factors such as leadership and school policies (Ololube, 2016), teacher-student relationships (Hamre & Pianta 2016), peer relationships (Iheanyichukwu et al., 2022; Wentzel, 2010), parental and community involvement (Epstein, 2011), and cultural and economic contexts (Bradshaw, 2011). Within the purview of this present study, these determinants are categorized under physical environment factors, leadership factors, social interactions, and academic optimism. The study thus sought to determine how managing them influences students' academic performance in public senior secondary schools in Rivers State.

## **Management of School Physical Environment as a Determinant of School Climate for Improved Students' Academic Performance**

The physical environment of the school plays a significant role in shaping the climate of the school and as well, influencing students' academic performance. This was captured in the ecological systems theory of Bronfenbrenner as cited in Crawford (2020) that the environment in which learning takes place significantly affects the development of the learner. When the physical environment is well managed through provision of requisite facilities, planning and coordination of the facilities, and adequate maintenance with effective utilization of the facilities

in the school system, it will most likely contribute to a safe and supportive climate that brings about improvement in teaching and learning.

The physical environment of the school includes the land on which the school is located, the fields and recreational facilities, classrooms for learning, sanitation facilities, lighting, school farms, educational support facilities like libraries, laboratories, among others. It is the physical expression of the curriculum intentions of the school. Uline and Tschannen-Moran (2018) had found that a positive school climate shaped by an enabling physical environment leads to improved cognitive functioning and academic achievement of students. In contrast, dilapidated buildings, overcrowded classrooms, poor sanitation and lack of learning resources create a negative climate that hinders the effectiveness of teaching and learning and brings about poor academic performance of students (Ololube, 2016).

Effective management of the physical environment also involves ensuring the safety and security of lives and property in the school system. Teaching and learning cannot be effective when teachers and or students do not feel safe by reason of external or internal threats to their safety. In recent times, public schools in Nigeria have been victims of attacks by the activities of cultists within the school system, stealing and assaults, bullying, and other forms of deviant behaviours from students, and abduction of students and teachers by terrorist sects coupled with other security threats from external forces. These could be properly managed by various strategies, some of which include the installation of electronic security gadgets, fencing and gating of schools, engagement of security personnel, institution of safety committee in the school, engagement of the services of local security agencies, and community involvement in school administration. Thus, a physical environment that creates a conducive climate that supports students' performance is one that is managed in such a way that requisite facilities are made available, are appropriately utilized, and are maintained, whilst ensuring that there is safety and security in the school. Students, teachers, and visitors feel happy, comfortable, and safe in such an environment.

### **Utilization of School Leadership as a Determinant of School Climate for Improved Students' Academic Performance**

Leadership in organizations is identified in literature to be the most critical factor that determines how the organization performs, whether poorly or excellently (Kaleem et al., 2021; Orupabo, 2021). This is because leadership creates the climate for the functioning of the human resources in the organization. In the school system, the quality of leadership is also a critical determinant of school climate, which significantly influences students' academic performance. Importantly, while several leadership styles are adopted by different principals and school administrators, when it comes to creating a supportive climate for effective teaching and learning, the most recurring themes in literature have been transformational, participatory, and instructional leadership practices (Adikwu, 2021; Bada et al., 2020; Madukwe et al., 2024). These foster positive school environments, enhance teacher motivation, and ultimately drive improved learning outcomes.

The leadership style adopted by school principals determines the degree of collaboration, trust, discipline, and motivation within the school, thereby impacting students' performance. School climate includes aspects such as safety, teaching and learning practices, interpersonal relationships, and institutional environment (Cohen et al., 2009). As instructional and administrative heads of secondary schools, principals have the capacity to directly influence

these variables through their leadership approach. Principals who employ democratic and transformational leadership styles tend to promote a more positive school climate (Oyetunji, 2006; Adeyemi, 2010). These leaders encourage teacher participation, student engagement, and foster professional learning communities.

Instructional leadership, which emphasizes curriculum development, teacher supervision, and monitoring student progress, was identified by Hallinger (2011) as one of the most effective approaches in enhancing school climate and student outcomes. Principals who focus on instructional leadership positively influence teacher commitment and student achievement, especially in core subjects such as Mathematics and English (Okorji & Anyanwu, 2017).

Explicitly, the roles of effective leadership in creating the right climate for students' performance were captured in literature to include:

- Establishing a clear vision and expectations for academic excellence;
- Creating a safe and supportive environment through enforcing fair discipline policies, addressing bullying, and ensuring student safety;
- Empowering teachers and staff to foster a culture of collaboration and innovation through professional development, shared decision-making, and recognition of good work;
- Promoting Positive Relationships by modelling respectful, caring relationships;
- Encouraging parental and community involvement;
- Data-driven decision making to identify areas for improvement and track progress;
- Recognizing and celebrating success to foster a sense of accomplishment and motivation among students and teachers.

Understandably, when the school leadership is strong and visionary, it would foster a positive school climate through promoting safety, respect, collaboration, and high expectations. This climate, in turn, would create the conditions necessary for students to thrive academically and personally.

### **Managing Social Interactions as Determinants of School Climate for Improved Students' Academic Performance**

The school is a social system means that there are network of relationships, interactions, norms, and values. Basically every activity that happens in the school is about interactions. The stakeholders of the school system - students, teaching and non-teaching staff, administrators, and parents are in a relationship that is sustained by interactions and communication. The quality of this interaction therefore creates a social climate that can significantly influence students' academic performance. As such, managing social interactions among stakeholders is a critical determinant of school climate for students' academic performance in secondary schools in Rivers State.

Social interactions within the school community create a network of relationships that contribute to the school's overall atmosphere. When these interactions are respectful, inclusive, and supportive, they foster a positive school climate that is conducive to learning. Studies have shown that positive teacher-student relationships improve students' academic performance, reduce behavioural issues, and promote psychological well-being (Iheanyichukwu et al., 2022; Wentzel, 2010).

Moreover, peer-to-peer interactions are significant. Social dynamics among students can influence learning motivation, collaboration, and school engagement (Iheanyichukwu et al., 2022). When managed properly through peer mentoring programs, conflict resolution strategies, and cooperative learning techniques, these interactions can enhance academic achievement (Okebukola, 2018).

School administrators play a pivotal role in setting the tone for social interactions within the school environment. Leadership style, disciplinary policies, and communication channels all influence the social culture of the school (Chime, 2024; Kaleem et al., 2021; Orupabo, 2021). Transformational leadership, for instance, has been shown to promote trust and collaboration among staff and students, leading to an improved school climate (Leithwood & Jantzi cited in Orupabo, 2021).

Beyond the school walls, social interaction with parents and the broader community also influences school climate. In Nigeria, many schools face challenges in engaging parents due to economic pressures and cultural factors. However, parental involvement in students' education is linked to better academic performance and school satisfaction (Angwaomaodoko, 2023; Epstein, 2011; Kulloma & Kolo, 2023).

Strategies such as regular parent-teacher meetings, community outreach programs, and school-based support services can improve the social ties between families and schools. This fosters a shared responsibility for students' education, creating a climate of trust and cooperation.

Effective management of social interactions is a powerful lever for improving school climate and, by extension, student performance in Nigerian secondary schools. While infrastructural and curriculum reforms are necessary, they must be complemented by deliberate efforts to cultivate positive relationships among all stakeholders.

### **Managing Academic Optimism as a Determinant of School Climate for Improved Students' Academic Performance**

For sustainable improvement in the performance of students in public senior secondary schools in Rivers State to be achieved, it is imperative to cultivate and deliberately manage academic optimism among the critical stakeholders of the school system, including school administrators, teachers, students, and parents. This is because academic optimism powerfully determines school climate that directly influences the performance of students. Academic optimism, a construct introduced by Hoy et al. (2006), encompasses three key components: teacher self-efficacy, academic emphasis, and trust in students and parents. Together, these elements create a school culture that promotes learning, resilience, and academic excellence. In the Nigerian secondary school context, where challenges such as inadequate funding, overcrowded classrooms, and low teacher morale persist, the strategic management of academic optimism could serve as a transformative tool for improving school climate and students' performance.

Academic optimism is a collective property of schools that integrates beliefs in student ability, emphasis on academic achievement, and trust in educational stakeholders. It goes beyond mere positive thinking; it represents a school's deep-seated belief that it can make a difference in student learning. When teachers believe in their instructional capabilities, maintain high academic expectations, and trust students and their families, a positive school climate is fostered.

To optimally manage academic optimism as a tool for improving school climate and student outcomes, some important strategies are highlighted in literature, including:

- Teachers' professional development: Teachers' self-efficacy, trust in students' ability to learn, and parents' trust in teachers' ability to improve student performance are important component of academic optimism (Ates & Unal, 2021; Wagner, 2018). As such, professional training for teachers becomes sacrosanct to equip them with skills that that boost their instructional confidence. Regular, relevant, and practice-oriented training can help build teacher self-efficacy. Tschannen-Moran & Hoy cited in Amulu and Dien (2022) had pointed out that empowered teachers are more likely to believe in students' capacity to learn, even in less-than-ideal circumstances.
- Fostering trust between the stakeholders of the school: Trust increases collaboration and creates a safe environment for academic risk-taking. Hence, effective principals are expected to build trust among teachers, students, and parents through transparent communication, shared decision-making, and consistent support.
- Emphasis on academics: Academically optimistic schools clearly communicate high expectations for all students. Recognizing and rewarding academic excellence, creating supportive learning environments, and minimizing distractions are essential to maintaining a focus on achievement (Oluwadayo et al., 2023; Yue, 2022).
- Leadership commitment: School leaders, including principals and teachers set the tone for academic optimism through their actions and behaviours, serving as powerful role models. Their attitudes, expectations, and management practices set the tone for the entire school. Distributed leadership, where teachers share leadership roles, can also promote ownership and optimism throughout the school.

Summarily, school leaders can reshape the school climate in ways that foster student success by intentionally promoting teacher efficacy, academic emphasis, and stakeholder trust. In an era where the Nigerian education system must deliver on the promise of inclusive and quality education for all, academic optimism can offer a practical, evidence-based approach to achieving this goal.

## METHODOLOGY

The study adopted the descriptive survey design. The design sought to identify and describe the determinants of school climate in public senior secondary schools in Rivers State and to determine the extent the school climate determinants were managed for improved students' academic performance in the schools. The population of the study comprised the 6,166 principals and teachers of the 333 public senior secondary schools in Rivers State. This was made up of 333 principals and 5,833 teachers. The population data was obtained from the statistics unit, Planning, Research, and Statistics Department of Rivers State Senior Secondary Schools Board, 2024 database. The sample for the study was 320 respondents comprising 30 principals and 290 teachers of the public senior secondary schools in Rivers State. This sample represents 5.2% of the total population of the study and it was determined using the proportionate stratified random sampling techniques.

The instrument for data collection was a structured questionnaire developed by the researcher and titled "Managing School Climate Determinants for Improved Academic Performance of Students in Public Senior Secondary Schools Questionnaire (MSCDIAPSQ)". The reliability coefficient of the instruments was determined using test-retest method and

Pearson's Product Moment Correlation statistics and was found to be .78. The research questions were answered using mean and standard deviation statistics on a modified 4 point Likert scale rating, while the null hypotheses were tested at .05 level of significance using independent samples t-test. The outcomes of the data analysis are as presented in the proceeding tables.

## RESULTS AND FINDINGS

### Answers to Research Questions and Testing of Hypotheses

**Research Question 1:** What are the determinants of school climate that need to be managed for improved students' academic performance in public senior secondary schools in Rivers State?

Table 1: Mean ratings of principals and teachers on the determinants of school climate that need to be managed for improved students' academic performance

s/n	Item variables	Principals (N = 30)		Teachers (N = 290)		Mean set (N = 320)		Decision
		$\bar{X}_1$	$SD_1$	$\bar{X}_2$	$SD_2$		$SD$	
1	The physical environment	3.84	.365	3.29	.455	3.56	.497	Agree
2	School leadership	3.04	.626	3.09	.660	3.07	.643	Agree
3	Social interactions	3.84	.305	3.51	.501	3.67	.469	Agree
4	Academic optimism	3.11	.683	3.21	.615	3.16	.628	Agree
5	Quality of teachers	3.90	.298	3.92	.278	3.91	.288	Agree
	Grand Mean	<b>3.55</b>	<b>.263</b>	<b>3.50</b>	<b>.288</b>	<b>3.47</b>	<b>.505</b>	<b>Agree</b>

Criterion mean = 2.50

**H<sub>01</sub>:** There is no significant difference in the mean ratings of principals and teachers on the determinants of school climate that need to be managed for improved students' academic performance in public senior secondary schools in Rivers State.

Table 2: Independent samples t-test of significant difference in the mean ratings of principals and teachers on the determinants of school climate that need to be managed for improved students' academic performance

Respondent's Portfolio	N	Mean	SD	t	Df	Sig.	Implication
Principals	30	3.54	.263	5.07	318	.357	H <sub>01</sub> Upheld
Teachers	290	3.50	.288				
Total	320						

Significance level of .05

Table 1 shows the mean ratings of principals and teachers on the determinants of school climate that need to be managed for improved students' academic performance in public senior secondary schools in Rivers State. The table reveals that all the highlighted items had mean ratings that were higher than the criterion mean of 2.50 implying that majority of the respondents strongly agreed that they are determinants of school climate that should be managed for improved students' academic performance, with grand mean set of 3.47±.505. Table 2, which was the independent samples t-test of existence of significant difference in the mean ratings of principals and teachers on the determinants of school climate that need to be managed for

improved students' academic performance, showed that the principals (30) had mean and standard deviation score of  $3.54 \pm .263$  while teachers (290) had mean and standard deviation score of  $3.50 \pm .288$ . The table further revealed that  $t(318) = 5.07$ ,  $p = .357 > .05$ . With  $p$  greater than the significance level of .05,  $H_{01}$  is upheld and the alternate hypothesis declined.

**Research Question 2:** To what extent is the physical environment as a determinant of school climate managed for improved students' academic performance in public senior secondary schools in Rivers State?

Table 3: Mean ratings of principals and teachers on the extent the physical environment as a determinant of school climate is managed for improved students' academic performance

s/n	Item variables	Principals (N = 30)		Teachers (N = 290)		Mean set (N = 320)		Decision
		$\bar{X}_1$	SD <sub>1</sub>	$\bar{X}_2$	SD <sub>2</sub>		SD	
6	There is adequate provision of infrastructure such as classrooms, furniture, laboratories and libraries which creates a positive climate for improving students' academic performance.	1.59	.556	1.41	.534	1.49	.552	LE
7	Safety and security are assured in the school and this creates a safe climate for improved students' academic performance.	1.60	.553	1.48	.541	1.54	.550	LE
8	The school is kept clean and aesthetically appealing, creating a healthy climate for improved instructional outcomes.	1.61	.527	1.41	.534	1.51	.561	LE
9	There is proper lighting, ventilation and noise control in every class, creating a supportive climate for students' academic performance.	2.26	.607	2.28	.610	2.27	.608	LE
10	There is water and power supply in the school, enabling a supportive climate for effective learning and students' performance.	2.26	.607	2.28	.610	2.27	.608	LE
Grand mean		1.86	.413	1.81	.402	1.82	.576	LE

**H<sub>02</sub>:** There is no significant difference in the mean ratings of principals and teachers on the extent the physical environment as a determinant of school climate is managed for improved students' academic performance in public senior secondary schools in Rivers State.

Table 4: Independent samples t-test of significant difference in the mean ratings of principals and teachers on the extent the physical environment as a determinant of school climate is managed for improved students' academic performance

Respondent's Portfolio	N	Mean	SD	t-cal	Df.	Sig.	Implication
Principals	30	1.86	.413	2.24	318	.325	H <sub>02</sub> Upheld
Teachers	290	1.81	.402				
Total	320						

Significance level of .05

Table 3 and Table 4 respectively show the mean ratings of principals and teachers on the extent physical environment as a determinant of school climate is managed for improved academic performance of public senior secondary school students, and the independent samples t-test of significant difference in their mean ratings. Table 3 reveals a grand mean set of 1.82 with standard deviation of .586, which being less than the criterion mean of 2.50 implies that majority of the respondents were of the opinion that the physical environment was managed to a low extent for improved student academic performance. Table 4 shows that principals (30) had mean and standard deviation score of  $1.86 \pm .413$  while teachers (290) had mean and standard deviation score of  $1.81 \pm .402$ . Further findings reveals that  $t(318) = 2.24$ ,  $p = .325 > .05$ . With the p value being greater than the significance value, H02 was upheld and the alternate hypothesis declined. As such, there is no significant difference in the mean ratings of principals and teachers on the extent the physical environment as a determinant of school climate was managed for improved students' performance in public senior secondary schools in Rivers State.

**Research Question 3:** To what extent is school leadership utilized as a determinant of school climate for improved students' performance in public senior secondary schools in Rivers State?

Table 5: Mean ratings of principals and teachers on the extent school leadership as a determinant of school climate is utilized for improved students' academic performance

s/n	Item variables	Principals (N = 30)		Teachers (N = 290)		Mean set (N = 320)		Dec
		$\bar{X}_1$	SD <sub>1</sub>	$\bar{X}_2$	SD <sub>2</sub>		SD	
11	The principal articulates a clear vision and gives direction for effective school performance.	3.53	.541	3.55	.541	3.54	.430	HE
12	The principal adopts participatory leadership style to create a positive climate that supports students' performance.	2.50	.529	2.49	.529	2.50	.528	HE
13	The school leadership makes student-centred decision and this creates a climate for improved student performance.	2.79	.444	2.79	.445	2.71	.444	HE
14	The school leadership encourages teacher collaboration thereby creating a positive climate for improved student performance.	2.50	.554	2.51	.556	2.50	.554	HE
15	The school leadership is transformational and inspires students and teachers to reach for their optimum potentials and this enhances student performance.	3.05	.638	3.03	.611	3.04	.624	HE
Grand mean		<b>2.87</b>	<b>.543</b>	<b>2.87</b>	<b>.536</b>	<b>2.86</b>	<b>.537</b>	HE

Criterion mean = 2.50.

**H0<sub>3</sub>:** There is no significant difference in the mean ratings of principals and teachers on the extent school leadership is utilized as a determinant of school climate for improved students' performance in public senior secondary schools in Rivers State.

Table 6: Independent samples t-test of significant difference in the mean ratings of principals and teachers on the extent school leadership as a determinant of school climate is utilized for improved students' academic performance

Status	N	Mean	SD.	t	Df	Sig.	Implication
Principals	30	2.872	.542	.010	318	.992	H0 <sub>3</sub> Upheld
Teachers	290	2.871	.636				
<b>Total</b>	<b>320</b>						

Significance level of .05

Table 5 shows that the grand mean rating of principals and teachers on the extent school leadership is utilized as a determinant of school climate for improved students' academic performance in public senior secondary schools in Rivers State was  $2.86 \pm .537$ . Since this score is higher than the criterion mean of 2.50, it implies that majority of the principals and teachers were of the opinion that school leadership was utilized to a high extent as a determinant of school climate for improved student performance. Table 6 further revealed that there was no significant difference in the mean ratings of principals ( $M = 2.872$ ,  $SD = .543$ ) and teachers ( $M = 2.871$ ,  $SD = .636$ ) on the extent of utilization of school leadership as a determinant of school climate for improved students' academic performance [ $t(318) = .010$ ,  $p = .992 > .05$ ]. Since the p value is greater than the significance level, H0<sub>3</sub> was upheld.

**Research Question 4:** To what extent are social interactions as determinants of school climate managed for improved students' academic performance in public senior secondary schools in Rivers State?

Table 7: Mean ratings of principals and teachers on the extent social interactions as determinants of school climate are managed for improved students' academic performance

s/n	Item variables	Principals (N = 30)		Teachers (N = 290)		Mean set (N = 320)		Decision
		$\bar{X}_1$	$SD_1$	$\bar{X}_2$	$SD_2$		$SD$	
16	Positive student-teacher relationships are promoted in the school, creating a friendly and supportive climate for students' academic performance.	3.01	.607	3.06	.637	3.04	.621	HE
17	Peer-to-peer collaboration and respect are fostered in the school, thereby creating a climate that supports students' academic performance.	2.50	.529	2.49	.529	2.50	.528	HE
18	The school leadership encourages inclusivity and participation of all stakeholders.	1.92	.718	1.89	.730	1.91	.723	LE
19	There is a safe and supportive physical environment which creates a social climate that improves students' performance.	3.04	.633	3.03	.611	3.04	.621	HE
20	The school management leverages on community and parental involvement in school activities for improved students' academic performance.	2.52	.528	2.49	.529	2.51	.528	HE
	Grand mean	<b>2.60</b>	<b>.603</b>	<b>2.60</b>	<b>.607</b>	<b>2.60</b>	<b>.604</b>	<b>HE</b>

**H0<sub>4</sub>:** There is no significant difference in the mean ratings of principals and teachers on the extent social interactions as determinants of school climate are managed for improved students' academic performance in public senior secondary schools in Rivers State.

Table 8: Independent samples t-test of significant difference in the mean ratings of principals and teachers on the extent social interactions as determinants of school climate are managed for improved students' academic performance

Status	N	Mean	SD	t	Df	Sig.	Implication
Principals	30	2.60	.315	.223	318	.824	H <sub>04</sub> Upheld
Teachers	290	2.59	.337				
<b>Total</b>	<b>320</b>						

Significance level of .05

Table 7 shows that the grand mean rating of principals and teachers on the extent social interactions were managed as determinants of school climate for improved students' academic performance in public senior secondary schools in Rivers State was  $2.60 \pm .604$ . Since this score is higher than the criterion mean of 2.50, it implies that majority of the respondents were of the opinion that social interactions as determinants of school climate were managed to a high extent for improved students' academic performance. Table 8 further revealed that there was no significant difference in the mean ratings of principals ( $M = 2.60$ ,  $SD = .315$ ) and teachers ( $M = 2.59$ ,  $SD = .337$ ) on the extent social interactions as determinants of school climate were managed for improved students' academic performance in public senior secondary schools in Rivers State [ $t(318) = .223$ ,  $p = .824 > .05$ ]. Since the p value is greater than the significance level of .05, H<sub>04</sub> was upheld and the alternate hypothesis declined.

**Research Question 5:** To what extent is academic optimism as a determinant of school climate managed for improved students' academic performance in public senior secondary schools in Rivers State?

Table 9: Mean ratings of principals and teachers on the extent academic optimism as a determinant of school climate is managed for improved students' academic performance

s/n	Item variables	Principals (N = 30)		Teachers (N = 290)		Mean set (N = 320)		Decision
		$\bar{X}_1$	SD <sub>1</sub>	$\bar{X}_2$	SD <sub>2</sub>	$\frac{\bar{X}_1 + \bar{X}_2}{2}$	SD	
21	The school administration enhances teacher self-efficacy to raise committed and confident teachers who improve student performance.	3.60	.498	3.26	.808	3.29	.792	High Extent
22	There is strong emphasis on academic excellence across the school, and this creates an academic climate for improved students' performance.	3.37	.556	2.94	.763	2.98	.756	High Extent
23	Trust is built between students, teachers, and parents and this increases the academic consciousness of the school for improved	3.57	.568	3.09	.887	3.13	.814	High Extent

	students' performance.							
24	The leadership practices of the school are aligned with the goals of academic optimism for improved student performance.	3.63	.556	2.84	.864	2.91	.870	High Extent
25	There is a supportive environment for student growth in the school and this improves their performance.	3.67	.479	3.25	.844	3.29	.827	High Extent
<b>Grand mean</b>		<b>3.57</b>	<b>.534</b>	<b>3.08</b>	<b>.833</b>	<b>3.12</b>	<b>.824</b>	<b>High Extent</b>

Criterion mean = 2.50

Table 10: Independent samples t-test of significant difference in the mean ratings of principals and teachers on the extent academic optimism as a determinant of school climate is managed for improved students' academic performance

<b>Respondent's Portfolio</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>t</b>	<b>Df</b>	<b>Sig.</b>	<b>Implication</b>
Principals	30	3.57	.223	6.063	318	.000	H <sub>02</sub> Rejected
Teachers	290	3.08	.437				
Total	320						

Significant level = .05

Table 9 shows that the grand mean ratings of principals and teachers on the extent academic optimism was managed as a determinant of school climate for improved students' academic performance in public senior secondary schools in Rivers State was  $3.12 \pm .824$ . Since this score is higher than the criterion mean of 2.50, it implies that majority of the respondents were of the opinion that academic optimism was managed to a high extent as a determinant of school climate for improved students' academic performance. Going further, Table 10 revealed that the principals (30) had a mean score of 3.57 with standard deviation score of .223, while the teachers (290) had a mean score of 3.08 with a standard deviation score of .437. These mean ratings were significantly different even as  $t(318) = 6.06$ ,  $p = .000 < .05$ . Since the p value is less than the significance level of .05, H<sub>05</sub> was rejected and the alternate hypothesis accepted. Therefore, there was significant difference in the mean ratings of principals and teachers on the extent academic optimism was managed as a determinant of school climate for improved academic performance of students in public senior secondary schools in Rivers State.

## DISCUSSION OF FINDINGS

The discussion of findings is carried out under five distinct subheadings relating to the five research objectives of the study vis-à-vis: determinants of school climate for students' improved academic performance; extent physical environment is managed as a determinant of school climate for students' improved academic performance; extent school leadership is utilized as a determinant of school climate for students' improved academic performance; extent social interactions are managed as determinants of school climate for students' improved academic performance; and extent academic optimism is managed as a determinant of school climate for students' improved academic performance

## **Determinants of School Climate for Students' Improved Academic Performance**

The first research objective of the study with its research question sought to ascertain the determinants of school climate that need to be managed for improved students' academic performance in public senior secondary schools in Rivers State. Five items were assessed as shown in Table 1. All the items had mean ratings greater than the criterion mean of 2.50 implying that majority of the respondents agreed that they were all determinants of school climate that need to be managed for improved academic performance of students. These include the physical environment ( $3.56 \pm .497$ ), school leadership ( $3.07 \pm .643$ ), social interactions ( $3.67 \pm .469$ ), academic optimism ( $3.16 \pm .628$ ), and the quality of teachers in the school system ( $3.91 \pm .288$ ). The testing of the corresponding hypothesis further revealed that there was no significant difference in the opinions of the principals and teachers in this regard. In other words, majority of the principals and teachers were in consensus on the need to manage these identified determinants of school climate for improved academic performance of students in public senior secondary schools in Rivers State.

These findings resonate with literature on school climate and students' academic performance. For example, Uline and Tschannen-Moran (2018) had found that an enabling physical environment resulted to a positive school climate for improved cognitive functioning and academic achievement of students. Uthman and Kassim (2016) hinted on the efficacy of the leadership styles of principals and teachers at creating school environments that are conducive for school goal attainment. Iheanyichukwu et al. (2022) eulogized the role of social interactions within school communities at creating appropriate climates for the success of school improvement initiatives. Academic optimism was a veritable predictor of school effectiveness. As such, school physical environment, leadership, social interactions, and academic optimism are critical school climate determinants that need to be effectively managed for improved academic performance of students in public senior secondary schools in Rivers State.

### **Extent Physical Environment is Managed as a Determinant of School Climate for Improved Students' Academic Performance**

Managing the physical environment as a determinant of school climate for students' improved academic performance as conceptualized in this study involved providing, utilizing and effectively maintaining requisite physical facilities in the school system, and creating a safe environment that is supportive of students' staff's, and visitors' physical, emotional and psychological wellbeing. This aspect of management could be achieved through: adequate provision of infrastructure such as classrooms, furniture, laboratories and libraries; assurance of safety and security in the school environment; keeping the school clean and aesthetically appealing; proper lighting, ventilation and noise control in every class; and provision of water and power supply in the school (Table 3). However, the outcome of the examination of these items as shown in Table 3 reveals that there the physical environment is managed to a low extent in that respect, and as such does not create a conducive climate for students' improved academic performance. Table 4 goes further to reveal that majority of principals and teachers were in consensus that the state of physical facilities in public senior secondary schools in Rivers State does not create a positive school climate for students' improved academic performance,

These findings of the study are highly supported by literature and are imperative for improvement in the management of the physical environment of public senior secondary schools

in Rivers State. In line with the findings of the study, several studies have found that physical facilities which create conducive climate for academic activities, such as classrooms, laboratories, libraries, instructional materials, technology and digital facilities, security gadgets and installations, and recreational facilities are in poor condition in public schools in Nigeria in general and in Rivers State is not an exemption (Anifowose & Lawal, 2013; Enefu & Okaforcha, 2020; Etor et al., 2020; Olalekan, 2023; Olokoba et al., 2015; Osuji & Ordu, 2022). The situation results in harsh school climate that undermines improvement in students' academic performance.

### **Extent School Leadership is Utilized as a Determinant of School Climate for Improved Students' Academic Performance**

The study in this regard found that leadership as a determinant of school climate was utilized to a high extent for improved students' academic performance in public senior secondary schools in Rivers State. It was further found that no significant difference existed in the opinions of principals and teachers in this regard. As revealed in Table 5, school leadership veritably creates a positive, conducive, and supportive school climate for improved academic performance of students through leadership practices such as: articulation of clear vision and providing direction for school improvement; encouraging participation of stakeholders in school decision-making processes; student-centred decision-making; encouraging teacher collaboration; and the adoption of transformational leadership practices which inspire the school community towards reaching their optimum potentials.

These findings of the study are in line with those of Adikwu (2021), Bada et al. (2020), and Madukwe et al. (2024), which identified transformational, participatory, and instructional leadership practices as practices of principals which fostered positive school environments, enhanced teacher motivation, and ultimately drove improved learning outcomes at various levels of education. Similarly, Adeyemi (2010) had found that democratic and transformational leadership styles tended to promote a more positive school climate by reason of the fact that principals employing these leadership styles encouraged teacher participation, student engagement, and professional learning communities.

### **Extent Social Interactions are Managed as Determinants of School Climate for Improved Students' Academic Performance**

The study in this regard found that social interactions are managed to a high extent for improved students' academic performance in public senior secondary schools in Rivers State, and there was no significant difference in the mean ratings of principals and teachers on this position. As revealed by Table 7, the management of social interactions is carried out through: promoting positive student-teacher relationships, fostering peer-to-peer collaborations and respect; encouraging inclusivity and participation of all stakeholders in school activities and administrative process; ensuring safe and supportive physical environment; and leveraging on community and parental involvement in school activities.

These findings agree with studies which have found that positive teacher-student relationships, peer-to-peer collaborations, school-community interactions, and a prevailing positive social climate in schools improve students' academic performance, reduce behavioural issues, and promote psychological well-being (Iheanyichukwu et al., 2022). Iheanyichukwu et al. (2022) had also found that social dynamics among students can influence learning motivation,

collaboration, and school engagement. The study's findings also concur with that of Okebukola (2018) that when social interactions are managed properly through peer mentoring programs, conflict resolution strategies, and cooperative learning techniques, these interactions can enhance academic achievement.

### **Extent Academic Optimism is Managed as a Determinant of School Climate for Improved Students' Academic Performance**

The fifth and last research question of the study with its research question sought to explore the extent academic optimism as a determinant of school climate is managed for improved students' academic performance in public senior secondary schools in Rivers State. The study in this regard found that academic optimism was managed to a high extent, and this was through: administrators enhancing teacher self-efficacy to raise teachers who are committed and self-confident; strong emphasis on academic excellence across the school; building trust between students, teachers, and parents for improved academic performance of students; aligning school leadership practices with goals of academic optimism; and fostering a supportive environment for student growth in the school system (Table 9).

The findings on the efficacy of academic optimism at creating desired academic climate for student performance and on the ways of managing academic climate are in line with findings of studies on academic optimism (Amulu & Dien, 2022; Ates & Unal, 2021; Oluwadayo et al., 2023). However, the findings further revealed that the principals and teachers significantly differed in their responses on the extent academic optimism was managed as a determinant of school climate for improved students' academic performance. While principals felt they were doing enough, teachers seemed to think differently. This highlights the need for better relationship between principals and teachers in setting academic optimism goals in schools in pursuing these goals to ensure that the school system has an academic climate that supports effective instructional delivery and improved academic performance of students.

## **CONCLUSION**

School climate is a veritable predictor of students' academic performance in public senior secondary schools in Rivers State. The various types of school climate that support students academic performance are determined by factors which include the physical environment, school leadership, status of social interactions in the school system, and academic optimism. As such, effective management of these determinants guarantees a positive, warm, friendly, conducive and supportive climate for improved academic performance of public senior secondary school students in Rivers State.

## **Recommendations**

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

- Principals and teachers of public senior secondary schools should periodically liaise in identifying and diagnosing school climate determinants to better strategize on how they may be effectively managed for improved success of their schools.
- Stakeholders of public senior secondary schools should be actively involved in the management of the physical environments of schools through collaborative provision,

utilization and management of facilities and ensuring that school environments are safe and conducive to support students' emotional, psychological, and leaning needs.

- Administrators and teachers of public senior secondary schools should normalize assessing their leadership practices to ensure that they are aligned with school improvement goals, so that they may be able to create supportive school climates that improve students' academic performance.
- School administrators should be magnanimous in providing opportunities for cordial relationships and interactions between the human elements of the school system (teacher-student relationships, student-student relationships, parent-school relationships, teacher-teacher relationships, etc.). This will make transfer of knowledge and exchange of information and resources easy for improved academic performance of students.
- Administrators, teachers, and parents in public senior secondary schools should be academically optimistic by expressing faith and confidence in the ability of their students, their parents and on the school administration to transform the lives of the students for good. This will help in creating an academically optimistic climate in the schools for students' academic performance.

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