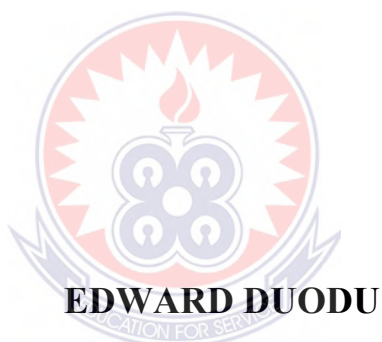


UNIVERSITY OF EDUCATION, WINNEBA

**INFLUENCE OF SCHOOL CLIMATE ON ACADEMIC
PERFORMANCE: A CASE OF SELECTED JUNIOR HIGH
SCHOOLS IN GA WEST MUNICIPAL ASSEMBLY**



MASTER OF PHILOSOPHY

2022

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CASE OF SELECTED JUNIOR HIGH SCHOOLS IN GA WEST
MUNICIPAL ASSEMBLY**



**A Thesis in the Department of Educational Administration and Management,
Faculty of Educational Studies, Submitted to the School of
Graduate Studies in partial fulfilment
of the requirements for the award of the degree of
Master of Philosophy
(Educational Administration and Management)
in the University of Education, Winneba.**

JULY, 2022

DECLARATION

Candidate's Declaration

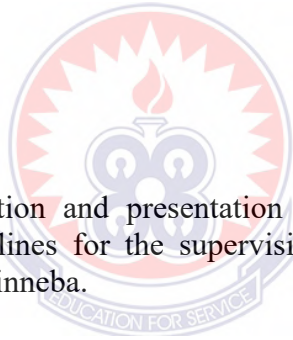
I, Edward Duodu, declare that except quotations and references contained in published works that have all been identified and duly acknowledged is entirely my original work, and it has not been submitted, either in part or in part-whole for another degree elsewhere.

Candidate's Signature:

Date:

Supervisors' Declaration

I declare that the preparation and presentation of this work were supervised in accordance with the guidelines for the supervision of thesis as laid down by the University of Education, Winneba.



Name of Supervisor: Prof. Dominic K. D. Mensah

Signature of Supervisor:

Date:

DEDICATION

To my father and mother, Mr. Emmanuel Duodu and Mrs. Gifty Duodu.



ACKNOWLEDGEMENTS

Several people have contributed in various ways to the accomplishment of this project work, but the first and most appreciation goes to the Almighty God for seeing me through this project successfully.

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I also specially thank all the lecturers in the Department of Educational Administration and Management, University of Education, Winneba. Again, to Ga West Municipal Education office, particularly the Deputy Municipality Director – Statistics and Planning, Mr. Fred Binka, who allowed me to carry out the study in the municipality and for the introductory letters which I took to the schools.

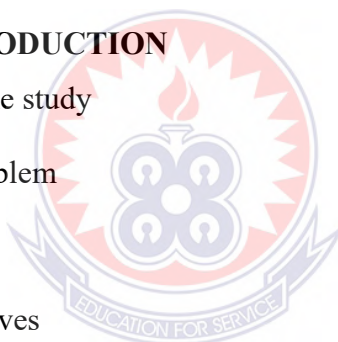
Huge thanks also go to the Headteachers, staff and pupils of Amasaman MA Basic 1, Achiaman MA Basic, Kojo Ashong Methodist Basic, Sacred Heart Anglican Basic and Nsakina Presby Basic Schools for consenting to participate in the project.

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ABBREVIATIONS

JHS: Junior High School

MDG: Millennium Development Goals

GES: Ghana Education Service

MoE: Ministry of Education

BECE: Basic Education Certificate Examinations

TLMs: Teaching Learning Materials

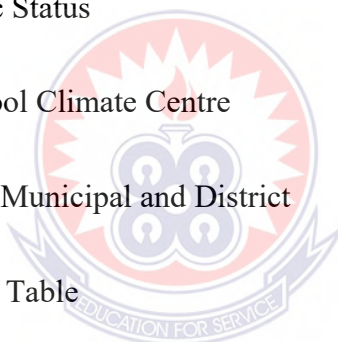
UNESCO: United Nation Education Scientific and Cultural Organisation

SES: Socio-Economic Status

NSCC: National School Climate Centre

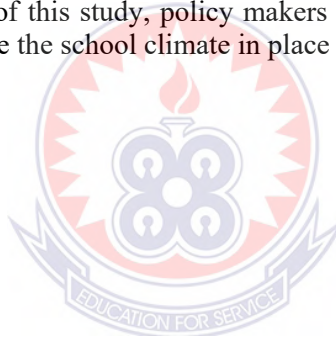
MMD: Metropolitan, Municipal and District

DLT: District League Table



ABSTRACT

The study sought to examine the relationship between school climate and academic performance. The study specifically sought to assess the school climate in the selected Junior High Schools and examine its influence on academic performance. This study was a purely quantitative study where data were obtained from 83 students and 83 teachers as well as 83 results of the previous BECE results from 5 schools in the Ga West Municipality through simple random sampling. The population was students and teachers of five Junior high schools including Amasaman M/A Basic School 1, Kojo Ashong Methodist Basic School, Nsakina M/A Basic School, Holy Innocent Anglican Basic and Achiaman M/A Basic School. The study employed the use of sample means and standard deviations for reporting on the descriptive variables, independent samples t-test; and multiple regression analysis with an acceptable significance level of 5% ($p \leq 0.05$). The study found that teachers have a higher perception of the quality of the school climate in the respective Junior High Schools in the Ga West Municipality whereas students have a moderate perception of the quality of school climate. Again, student engagement has a significant positive effect on the academic performance of the students in the selected Junior High Schools in the Ga West Municipality but does not moderate the relationship between any component of school climate in the selected Junior High Schools and the student academic performance. Based on the findings of this study, a productive school climate should be investigated and established. The elements of a successful school environment should be determined in advance by policymakers, who should then establish a healthy and effective school climate policy to be followed in all schools and across the community. With the help of this study, policy makers as well as school management make efforts to assess and improve the school climate in place at the respective schools.



CHAPTER ONE

INTRODUCTION

1.0 Background to the study

According to a large body of research, children who attend schools with a good school environment are more interested in learning and achieve better academic standards (Wang & Eccles, 2013; Thapa, Cohen, Guffey & Higgins-D'Alessandro, 2013; Mehta, Cornell, Fan & Gregory, 2013). In a school, instruction and learning take place. Some scholars refer to it as a temple of learning, and it serves as the child's second home (Sidhu, 2015). Therefore, it should have a healthy environment that is child-friendly as a social institution. A perspective and emotional response to a school is its atmosphere. Even if it is sometimes unseen, the school community is nonetheless affected. According to Walters (2015), a positive school climate creates an "atmosphere for learning" and is a "good place to be" in general. Even though a growing body of evidence demonstrates the advantages of a supportive school climate on students' progress and despite the national commitment to evaluate and improve school climate, there are substantial problems with its design and measurement. Reviews of school climate measurements have criticised the concept's nebulous character, the absence of a guiding theory, and the necessity for a comprehensive psychometric assessment. In light of the above, this research aims to provide a thorough examination of how the school climate affects JHS students' academic performance in Ga West Municipality of Ghana.

In a learning environment where the instructors fervently believe in the children's capacity to succeed academically, a school is considered to be academically good and

high performing when the teachers set high standards that the students may fairly reach (Noor, 2020). In such a setting, students consistently strive for the same academic objective and recognise those who achieve academic success (Mehta, Cornell, Fan & Gregory, 2013). High-achieving schools, according to Cohen, McCabe, Michelli and Pickeral (2019), have teachers who establish challenging but achievable goals for their students and who think that hard work can help students achieve those goals. These are just a few of the many components of a positive school climate. If a school prioritises its students and works to create an environment that is favourable to teaching and learning, it can be healthy and welcoming for its students. According to Alemnew, Sharma and Das (2017), a positive school climate plays a part in encouraging children to reach their maximum potential. School climate, according to Ismail, Rahman, and Yaacob (2020), is the term used to describe the views and perceptions of educators on the working conditions and culture of a school.

In general, there are two distinct school climate types: open and closed (Hoy, Hoffman, Sabo & Bliss, 1996). An open climate is one where interactions between instructors and school administrators are mutually beneficial and carried out in a welcoming, kind, yet professional way (Wang & Eccles, 2013). In this circumstance, teachers and the management of the school strongly support one another to enable a free exchange of concepts, points of view, and views. Without taking into account potential power dynamics, both parties fulfil their obligations and do their duties (Ghavifekr & Pillai, 2016). Teachers and the principal help one another on a mutual basis.

On the other side, a closed school climate is often represented by limited and regulated connections where communication and interaction are closely observed, leading to very little freedom (Waruwu, 2015). In this kind of educational setting, power dynamics are quite prominent, and administrators often direct teachers' behaviour, choices, and

actions (Ilyas & Abdullah, 2016). The principal or the administration of the school does not interact with the instructors. Frequently, the management controls various decision-making processes, which cause frequent misconceptions (Noor, 2020). Such a practice absolutely runs counter to the idea of an open school environment and does not offer the proper setting for instruction and learning that is essential for building a positive, healthy school environment.

From these two diametrically opposed definitions, it follows that a successful and pleasant school atmosphere depends on an open environment. Since the turn of the 20th century, educators and researchers (Greenway, 2017; Thapa et al., 2013; Konold, Cornell, Jia & Malone, 2018) have used various definitions of the term "school climate" to refer to factors like safety, school ecology, a caring and healthy learning environment, school culture, classroom arrangements, and other factors. These definitions often change in response to societal, educational, and pedagogical developments. The elements influencing student involvement and academic success have also been linked to school atmosphere.

The evaluation of a student's proficiency in a range of academic subjects is known as student performance or academic performance. Teachers and education officials often utilise classroom performance, graduation rates, and standardised test scores to gauge students' performance. The student's rating is based on how well he did in a variety of classes throughout high school and college (Muijs & Reynolds, 2017). According to some scholars (Konold et al., 2018), academic success refers to how well teachers or an institution have accomplished their short- and long-term goals. Thus, in this research, student performance across all courses provided in Ghanaian junior high schools is used to gauge academic attainment. Tolerance, teamwork, and symbiotic connections are among the values that are jointly upheld by students, teachers, and

school administration in healthy partnerships and relationships where student participation takes place (Noor, 2020). This results in favourable actions and behaviours as well as strong motivation in both instructors and pupils.

Students' learning engagement, which is a cardinal part of school climate can be defined as the input of cognitive, emotional and behavioural effort that students require to complete their learning tasks (Kamal & Radhakrishnan, 2019; Mubarak et al., 2021b). The cognitive aspect focuses on students' interest and positive attention to acquiring new knowledge and skills through learning. In other words, it emphasises on the interaction between learning motivation and cognitive engagement (Bowden et al., 2021). By comparison, emotional engagement concerns students' emotions and feelings in the learning environment (Wajtrakul, 2016). Behavioural engagement refers to the behaviour evident in students' efforts for learning, such as participating in assigned tasks and seeking help from the instructor for learning activities (Siddiquei & Khalid, 2018). As the cognitive, emotional, and behavioural engagement focus on students' academic aspects, these concepts are sometimes integrated as students' academic-related engagement (Wang & Hofkens, 2020). Student engagement is an important variable that can moderate the relationships between students' academic performance and its influencing factors (Gerber et al., 2013; Kanta & Srivalli, 2019; Ebarido & Wibowo, 2021). The role of students' social engagement contributes to students' academic performance when educational institutions promote social connectedness (Di Malta et al., 2022).

According to empirical findings from a quantitative study by Greenway (2017), there is a statistically significant unfavourable relationship between school climate and student performance in middle schools in the Central Savannah River Area of Georgia. Konold et al. (2018) also tested the renowned school climate theory, which maintains

that higher levels of structure and student support are associated with higher levels of student engagement and higher academic performance as demonstrated by graduation rates of schools and their performance on state-mandated tests. The author claimed that student participation acted as an intermediary factor and was closely tied to academic success.

Since the social cognitive theory offers a theoretical justification with relation to students and staff, it has been theoretically linked to climate accomplishment (Bandura, 1997). Students might exert power over generating this environment in the classroom via accumulation and collective effectiveness that result in this (Gummadam, Pittman & Ioffe, 2016). This describes the influence academic staff members have on students' academic progress and how their viewpoints may inspire the latter. A positive school atmosphere has also been carefully and extensively implemented using the self-determination idea (Deci & Ryan, 1985). The theory supports the idea that both students and academic staff must be able to satisfy their fundamental psychological requirements of relatedness, competence, and autonomy. When all of these essential psychological needs—which are composed of numerous connected and entwined elements—are met, students and staff become determined and have a strong desire to work together. This encourages group dynamics, which might further enhance a friendly atmosphere.

Another theory that is frequently connected to a healthy and pleasant school environment is Bronfenbrenner's (1986) bio-ecological theory, which holds the view that numerous environmental layers impact and alter various school components. How these layers, which include families, schools, and societies, impact students' learning has been the subject of studies (Ertem, 2020; Hampden-Thompson & Galindo, 2017). This theory offers a comprehensive view on the influence of school environment on

student accomplishment by closely relating to issues impacting the social, psychological, and cognitive dimensions.

The social identity theory (Tajfel & Turner, 1979), which examines how a system or structure affects student and instructor behaviours, is another widely utilised theory in school environment. According to the social identity approach, when people experience specific self-actualization impulses, they feel obligated to contribute to the improvement of the organisation. By doing this, people mentally feel a member of that system, group, or organisation (Tajfel & Turner, 1979).

As a result, their shared values and needs are what connect and unify them. They may also be recognised by their connections to others, which are shown via their beliefs, or by what they see as important and urgent. According to the social identity theory, group members who feel the group to have psychological significance will be more driven to achieve the group's objectives and will work harder to see that they are accomplished (Haslam, Powell & Turner, 2000). People who are a part of the group frequently have a sense of psychological connection and belonging, which motivates them to act and behave in ways that advance the goals and objectives of the group (Turner & Reynolds, 2011). The concept of school climate in the context of education embodies the norms, attitudes, and beliefs of the "school" group. A major objective of the school as a whole is to place a high focus on academics, foster positive staff-student relationships, and establish a common set of principles and methods that contribute to the effective learning of students (Reynolds, Lee, Turner, Bromhead & Subasic, 2017).

It is believed that it is of importance to consider the psychological process through which school atmosphere influences students' and staff members' behaviour as the trigger for developing student, staff, and school identity. It is critical to develop a tested,

practical model of the school climate that accounts for all three elements. Additionally, earlier research used a one-dimensional approach to evaluate how the school atmosphere affects students' academic performance. This research builds a multidimensional model evaluating school climate and its impacts on student academic performance in the Ga West Municipality by drawing on the social identity, social cognition, and ecological systems theories as well as the authoritarian climate model.

1.1 Statement of Problem

Everyone may recall childhood experiences when they felt especially frightened or safe in school, terribly alone or attached to a caring adult, or notably less engaged in educational activities (or more). These are the school experiences that we all often recall clearly, whether they were positive or negative. Most of the time, it is expected that these experiences will influence learning and growth. But the atmosphere at schools has more to do than just the experience of any individual (Konold & Cornell, 2015). When people work together, a collective process emerges that is more powerful than the actions of any one person. What affects learning and student development is characterised by our beliefs about education and these bigger societal tendencies. According to Gregory, Cornell and Fan (2011), “a thorough evaluation of school climate takes into account all major aspects of school life, including safety, relationships, teaching and learning, and the environment, as well as more significant organisational patterns (ranging from fragmented to shared; unhealthy/healthy)”.

For instance, Berkowitz, Moore, Astor and Benbenishty (2017) discovered that "a positive school climate contributed to higher academic performance and decreased the negative influence of poor socio-economic status background characteristics and other risk factors on academic performance " in their meta-analysis of 78 published research

articles. These findings were supported by another review by Wang and Degol (2016), which also came to the same conclusion that a supportive school climate encourages greater academic performance when that climate is characterised by high academic standards and high-quality teacher-student connections. Although informative, the use of a meta-analysis shows that Berkowitz et al's (2017) study just attempted to combine the results of prior research and fell short of adding to it. Additionally, the analysis includes certain studies that were carried out more than ten years ago, which means that some of the conclusions may be out of date.

In their comprehensive analysis of school climate studies, Huang and Cornell (2018) argued that when considering the school environment, it should be understood as a system of school variables that have an impact on one another and are linked to important student outcomes. The authors argued that it is important to differentiate between essentially interpersonal traits like the quality of teacher-student interactions and personal traits like motivation and engagement, which should then be separated from behavioural outcomes like test performance or attendance. Similar to this, Astor and Benbenishty (2018) noted that the lack of conceptual models identifying processes by which various aspects of school climate are connected with student outcomes like academic success has severely hampered school climate theory. A more sophisticated and relevant model of the relationship between school atmosphere and success may be developed with the aid of research on student participation. By doing so, this study aims to fill a vacuum in empirical research that takes the Ghanaian environment into account.

Mention must be made that, the Ga West Municipality, as reported by a January 2023 report by Graphic online, has maintained its position as the best performing Metropolitan, Municipal and District (MMD) in the education sector with a score of

90.16, per the 2021 District League Table (DLT) Report (Safo, 2023). This performance may be linked to a positive school climate; however, there is almost an absent literature examining this nexus. As such, it is hard to tell the role of school climate in this academic success. Especially, taking junior high schools within the municipality into context.

A number of studies (Wang & Eccles, 2013; Konold et al., 2018; Lawson & Masyn, 2015) have also suggested that while other studies have found that student engagement in school promotes greater learning and academic success, a positive school climate stimulates greater student engagement. In essence, there may be a significant correlation between student success and school atmosphere. This formulation is significant both theoretically and practically. Theoretically, it contributes to a functional model of how school climate influences academic performance and teaches school administrators how to evaluate the impact of their initiatives to improve school climate on student engagement in achieving academic goals (Konold et al., 2018). There are direct practical ramifications for more efficient school-based interventions at the school and student levels if it can be determined how the characteristics of a school environment are communicated to student results. But all three components must be included in a tested, working model of the educational environment.

However, there is a lack of conceptual models identifying processes by which various aspects of school climate are connected with student outcomes like academic success. This has severely hampered school climate theory. A more sophisticated and relevant model of the relationship between school climate and success thus needs to be developed with the aid of research on student participation. Due to this, the main issues in school climate research have been how school climate affects academic performance,

what specific aspects of the learning environment are related to student academic performance, and what mechanism underpins this relationship. For instance, Wang and Degol (2016) proposed that future studies should take into account school climate as a multidimensional construct and identify the particular aspects of school environment that are associated with student academic performance in order to offer future research directions. The authors criticised past studies for developing a unidimensional model of the school environment using a single scale and a single informant. In order to support these more intricate conceptualizations of school climate, these authors promoted the use of multilevel modelling methodologies.

By doing so, this study aims to fill a gap in empirical research that takes the Ghanaian context into account. To fill these gaps, this study will make use of the authoritative school climate (ASC) model, which was modified from Baumrind's (1968) work on authoritative parenting and still serves as the foundation for a sizable corpus of child development research. This model provides a viable approach for pinpointing crucial elements of school climate and their relationship to positive student outcomes (Larzelere, Morris & Harrist, 2013).

1.2 Purpose of Study

The purpose of this study was to examine the influence of school climate on academic performance. This study investigated the moderating role of students' engagement in the relationship between these two variables in selected Junior High Schools in the Ga West Municipal Assembly in Accra. Theoretically, this study aims to contribute to a functional model of how school climate influences academic performance and teaches school administrators how to evaluate the impact of their initiatives to improve school climate on student engagement in achieving academic goals.

1.3 Research Objectives

In order to achieve the main aim of this study, the following objectives are formulated;

1. To assess the quality of the school climate in the selected Junior High schools in the Ga West Municipal Assembly.
2. To examine the influence of school climate on academic performance of students in selected Junior High schools in the Ga West Municipal Assembly.
3. To assess the influence of student engagement as an element of school climate on academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly
4. To assess the moderating role of student engagement in the relationship between school climate and academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly.

1.4 Research Hypothesis

1. H₀: There exists no significant effects of school climate on the academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly
H₁: There exists a significant effect of school climate on the academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly.
2. H₀: There exists no significant effects of student engagement as an element of school climate on the academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly.
H₁: There exists a significant effect of student engagement as an element of school climate on the academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly.

3. H₀: There exists no significant moderating role of student engagement on the relationship between school climate and the academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly.

H₁: There exists a significant moderating role of student engagement on the relationship between school climate and the academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly.

1.5 Delimitation

Geographically, the study was conducted in the Ga West Municipality of the Greater Accra Region of Ghana. This study's context centres on the relationship between student academic performance and school atmosphere, as well as the moderating role of student participation in this relationship. The study seeks to consider all Junior High schools in the Ga West Municipality of the Greater Accra Metropolis of Ghana. The study was only able to examine school engagement and school climate from the students' and teachers' perspectives. Parents and other staff such as headteachers are contributors to a student's positive school outcome. Thus, not being able to examine data on school climate and school engagement from parents, and important others necessarily limits our overall understanding of the variables of interest.

1.6 Limitations

It is essential to recognize this study's limitations although it has outlined the influence of school climate on academic performance considering the boundary condition of student engagement. This study encountered several limitations in the conduct of the study. The methodology and scope of the investigation were both constrained. Given that it is a cross-sectional study, neither the direction of the effect nor a strong causal link can be determined. The study did not go into great detail about lower and upper

elementary schools individually because it concentrated on junior high schools in general.

The outcomes of this investigation were analysed using a strictly quantitative methodology, which is restricted in its attempts to relate with the experiences of the participants in the study. Also, the study relied on the BECE results of the students which implies that the concept of academic performance has been limited to a summative assessment. Again, time for data collection, analysis and presentation was limited. Since the questionnaires were self-reported, it is possible that, not every respondent was entirely honest in their responses which may imply that, the outcome of the study may not be necessarily reflective of the situation within these schools. Also, the study focused only in the Ga West Municipality of the Greater Accra Metropolis of Ghana. Due to the chosen geographical location, certain features such as teacher's education, the impact of school climate on academic performance may not all apply to all schools in the numerous municipalities in Ghana.

1.7 Definition of Terms

School Climate: School climate as the quality and character of school life. School climate in this study is based on patterns of students' and teachers' experience of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practises, and organisational structures (National School Climate Council, 2021)

Student Engagement: Student engagement in this study is measured by both students' and teachers' perception of their experiences with teaching and learning measured with the authoritarian school climate model

Academic Performance: Academic performance refers to the extent to which a student, teacher, or school has attained their educational goals. Academic performance

in this study is the performance of students on the Basic Education Certificate Examinations (BECE).

1.8 Significance of the Study

The outcome of the study has direct implications for policy makers and academicians.

Practical Significance

School administrators may help by providing more adequate and useful resources to help instructors enhance the abilities of instructors to influence student learning and growth based on areas of inadequacy. As a result, increased awareness might help teachers realise that how they evaluate their own abilities has a big impact on how they teach and how well their students do in school.

Schools, teachers, students, stakeholders, the general public, and academics who wish to learn more about the features of a school's climate and how they impact teaching and learning in Ghana and throughout the world may find the study to be a valuable resource.

This study will also help instructors to provide lessons that include opportunities for learning and participation - learners to interact with each other in addition to a high-level of involvement from the instructor. The provision of a blended learning ecosystem can minimise the potential for students to “opt out” of the learning process.

Institutional Significance

Since both positive and negative characteristics of school climate will be discovered and examined to identify their impact on students' education and academic progress, the study will be helpful to the junior high schools in Accra that were chosen. Analysing these traits will therefore help to create a welcoming environment that will support the education of all pupils in the school. The right school climate will then give teachers

and school administrators more information they can use to suggest school improvement initiatives that would support greater learner academic performance.

The Ministry of Education and the Ghana Education Service will benefit from this research because it will help them understand more clearly the relationship school climate has on pupils' education, allowing them to take appropriate measures to ensure that Junior High School pupils receive a complete education and achieve greater academic success.

Theoretical Significance

The results obtained from this study expand the understanding of the theories used in relation to school climate. The Authoritarian School Climate model used in the study provides a viable approach for pinpointing crucial elements of school climate and their relationship to positive student outcomes.

1.9 Chapter Organisation of the rest of the Study

The rest of the study is organised as follows: Chapter Two is the literature review, which is in four sections, a theoretical review, a conceptual review, and a conceptual framework followed by an empirical review; Chapter Three, which is the research methodology, dealt with the approach applied in this research study. The sampling techniques and sample size, data processing and mode of analysis, variables, and ethical considerations will also be discussed here; the fourth chapter is the data presentation, analysis and discussion; and finally, Chapter Five is the summary of the study, followed by the conclusions and recommendations. Where feasible, key areas for further research are provided.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter provides a review of relevant literature to the study examining the influence of school climate and academic performance. The section begins with a theoretical review, followed by a conceptual review, an empirical review. A conceptual framework is developed for the study in this chapter based on the empirical gaps and the theoretical perspectives under this section. Literature is reviewed on the following sub-topics: Concept of school climate; school culture and school climate; dimensions of school climate; types of school climate; student engagement; dimensions of student engagement; and academic performance.

2.1 Theoretical Review

This study is modelled on three theories which are Social Identity Theory, Ecological Systems Theory and the Social Cognitive Theory

2.1.1 *Social Identity Theory*

A person's consciousness of belonging to a group of social categories that has psychological and value importance as a consequence of that category of link is what Tajfel (1972) identified as the social identity theory. Social identity refers to the aspect of an individual's (in this case, students) self-image that is generated from social gatherings where they see themselves as fitting into society (in this case, the school) (Tajfel & Turner, 1986). According to the social identity theory, students try to maintain and improve their positive self-concept and self-esteem. Students compare the positive and poor characteristics of their school to those of other schools to which they

do not belong, comparing things like reputation and status. According to social identity theory, students also keep a list of the groups they consider themselves a part of, such as sports teams, gender groupings, and IQ groups (Miles & Kivlighan, 2012).

Social Identity Theory is the most popular of the several hypotheses that academics employ to explain the principles behind how school atmosphere affects students' academic performance (Gillespie, Brett & Weingart, 2000). It is predicated on the notion that a person is working to develop a positive self-concept and a positive self-image. Advocates claim that different social category characteristics are likely to make tensions between the groups worse (Greer & Jehn, 2007). Interpersonal difficulties are more prevalent among members of groups that are outwardly different from one another than among those who are. Additionally, when efforts to express viewpoints across these borders are impeded, communications may be misinterpreted (Lortie, Castrogiovanni & Cox, 2017), possibly resulting in conflict. Strong subgroupings within the group might lead to unspoken conflict in relationships. This may result in a situation where one group dominates the debate while excluding others, creating power asymmetries (Gillespie, Brett & Weingart, 2000).

Social identity theory states that group members who perceive the group to have psychological significance will be more motivated to attain the goals of the group and will put forth more effort to ensure that they are achieved (Haslam, Powell & Turner, 2000). The concept of school climate in the context of education embodies the norms, attitudes, and beliefs of the "school" group. A major objective of the school as a whole is to place a high focus on academics, foster positive staff-student relationships, and establish a common set of principles and methods that all contribute to the effective learning of students (Reynolds, Lee, Turner, Bromhead & Subasic, 2017). The

psychological process via which a school's atmosphere affects students' and staff members' behaviour is thought to be crucial in understanding how student, staff, and school identities are formed. As a result, students' affiliation with their school may have an impact on their academic performance.

Student identification with the school as an important group to them, where they find meaning and belonging, is aided by a supportive and pleasant school environment. As a result, they are more likely to instinctively internalise the school's values and standards, putting an emphasis on learning and accomplishment (Muijs & Reynolds, 2017). Muijs, Reynolds, and colleagues (2017) discovered that students' school identification mediated the association between their assessments of the school atmosphere and their writing and numeracy test results. However, the study's assessment of school environment was constrained since it only took into account shared values and approach, one broad aspect of school climate. According to one research, there is a connection between school environment and students' behaviour in that issues are brought on by students' school connectivity (Bolland et al., 2016).

According to the SIT, it is hypothesised in this study that student engagement, which has an impact on their academic performance, is influenced by the perceived quality of the school climate, which is measured by the extent to which students feel like they belong to the school or are classified under any category within it. This leads to the propounding of the first and second research hypothesis stated as thus;

1. H₀: There exists no significant effects of school climate on the academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly.

2. H₀: There exists no significant effects of student engagement on the academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly

Once again drawing conclusions from the Social Identity Theory, the researcher suggests that interpersonal conflict in the school setting is probably going to become worse because of group dynamics. This hypothesis thus provides a framework for demonstrating how social category variation among students influences their perceived degree of involvement, which in turn has an influence on their academic success. The social categorization theory (Buckingham, & Best 2016) and social identification theory are therefore divided into two categories (Tajfel & Turner, 1979). Social categorization theory investigates how students identify themselves and act as a group, while social identity theory investigates how students feel about their school membership and how they behave as a group (Miles & Kivlighan, 2012). The most common social categories are perceived racial or ethnic identity, perceived gender, and considered likeability by their instructors (Burke & Kao, 2013). In light of this, the research adds gender as a control variable to the model used to estimate the correlation between student involvement, school atmosphere, and academic performance in the chosen schools in the Ga West Municipality.

According to Hernandez, Robins, Widaman and Conger (2014) and Gummadam, Pittman and Ioffe (2016), school belonging is a crucial variable for modelling student accomplishment. In studies where student accomplishment was the focus of the investigation, the social identity theory discovered relationships between perceptions of the school staff's atmosphere and student performance (Muijs & Reynolds, 2017). Additionally, it has been shown that staff affiliation with their school affects how they perceive student success. In other words, the degree of staff psychological ties to the

institution may have an influence on how well students do in the classroom. For instance, when staff members feel a strong sense of identity with the school, they may be more motivated to work for better academic performance for their students. They may also put out more effort to provide a nice work environment for children. These behaviours, which are supportive of student academic performance and may result in enhanced student accomplishment, may be obtained when staff members' social identification with the school is strong.

The social identity hypothesis contends that grouping students into smaller groups within a school is a major contributor to egotism, low self-esteem, and other negative emotions that have a negative impact on students' motivation and academic performance. According to Tajfel and Turner (1979), the majority of the time, a student group will increase its self-confidence by prejudicing and prejudging members of other groups, a process known as in-group and out-group categorization. Discriminatory actions and erroneous attitudes about things like gender and race may give birth to ethnocentrism, which can result in continuing ethnic conflicts at school. According to this hypothesis, the internal values of the group to which students and instructors belong shape their workplace behaviours. As a consequence, the performance of the instructors is instantly affected. The hypothesis supports the necessity for this study to explore how students' academic performance in the subject area is influenced by the school environment as a whole metric from the viewpoints of both students and instructors.

2.1.2 Ecological Systems Theory

One of the theories that is most frequently used to explain school climate is the theory of ecological systems (Wang & Degol, 2016). According to this theory, societal context and individual development work together to influence how people develop. This

theory states that many social subsystems have both direct and indirect effects on people's behaviour. The ecological systems theory considers relationships between a child's surroundings and their development (Asare, 2015). The idea put out by Bronfenbrenner states that there are several "layers" of the environment, in this case the atmosphere of the school, which have an effect on a child's growth. Recently, the concept of "bio-ecological systems theory" has been utilised to emphasise how a child's biology is their fundamental environment for growth (Taylor, 2013). The child's developing biology, his close family and community, and the social environment all work together to hasten and direct his growth (Felicia, 2020). Disagreements or other modifications made to one layer will affect the others. It's crucial to take into account a child's interactions with the larger world in addition to just the child and his immediate environment while assessing a child's development (Paquette & Ryan, 2011).

The Ecological Systems theory places a strong focus on the necessity to assess school climate in this context from a multidimensional rather than a unidimensional perspective. As a result of the interplay between the factors that make up a child's environment, the child's development is significantly impacted, which has an impact on the child's degree of academic performance. Because it addresses the many strategies for enhancing a child's cognitive development and academic performance, this idea is significant to the research. Because of this, teachers who are in a child's immediate surroundings have an impact on that child's development, making assessment practises, relationships between teachers and students, student involvement, and a sense of belonging, among other factors, vital to the development of that child.

The environment of a child is characterised by Bronfenbrenner (1977) as the micro, meso, macro, exo, and chrono-systems. The things that a child directly interacts with

are part of the microsystem, which is the layer that is closest to the child (Paquette & Ryan, 2011). A child's associations and interactions with her immediate environment are referred to as her microsystem (Felicia, 2020). Examples of microsystem structures include the family, school, neighbourhood, and childcare facilities. This level of relationships has an impact both on the child and away from the child. Parents can influence a child's thinking and behaviour, even though a child may have an impact on a parent's behaviour and views (although in this research, school-specific characteristics are taken into account rather than the child's home environment). At all layers of the ecosystem, what Bronfenbrenner refers to as "bi-directional effects" occurs. This idea is supported by interactions between layers as well as the interaction of structures within a layer. Bi-directional impacts are the most potent and have the most effect on the child at the microsystem level. On the other hand, interactions at the outer layers could affect the inside architecture.

In the context of a school, numerous factors present in various social and educational subsystems have an impact on how people behave (Rudasill et al., 2018). The microsystem is the lowest ecological level. The direct relationships that exist in this subsystem between the members of the educational community give the school climate its character and tone. The mesosystem, which is a result of interactions between members of the educational community, serves as the setting for important aspects of school climate. A number of elements that make up the exosystem must be taken into account as potential influences on the culture of the school. The macrosystem, on the other hand, is made up of all structures where the student does not directly participate, including values or culture. Last but not least, the chronosystem depicts a higher level based on historical occurrences and movements that have an impact on cultural ideas, priorities, and conventions.

This suggests that in order to conduct a thorough investigation of the potential impacts these may have on a child's academic performance, it is essential to include the viewpoints of both instructors and students about the school environment. Additionally, for children in their early years, evaluation practices, social structures, and social interactions may have both immediate and long-term implications. This layer of the theory states that if junior high school instructors strive toward a clear objective and have a better grasp of their purpose, these practices will have a substantial impact on students' academic performance. However, because this is not a one-dimensional phenomenon, it is important to take into account how the child's viewpoint may be influential.

According to the ecological systems theory, the layer connecting the components of the child's microsystem is called the mesosystem (Felicia, 2020). Examples include the connection between the child's religion and neighbourhood as well as the interaction between the child's teacher and parents. The child is not actively participating in the larger social system, or exo-system. Due to their interactions with other microsystem components, the structures in this layer have an impact on a child's development (Taylor, 2013). Work schedules for parents and locally based family services are two instances. Even though he is not yet actively engaging, the child is aware of the good and negative forces at work in his own system. The environment of the child might be thought of as having a macrosystem as its top layer. This layer lacks a specific structure and is made up of cultural values, rules, and norms (Asare, 2015). The interactions between all other levels are cascaded by the effects of the macrosystem's bigger principles. A society is less inclined to provide resources to aid its members if it believes that parents or teachers should bear sole responsibility for the upbringing of their offspring.

The chronosystem serves as a bridge between a child's surroundings and time. This method considers both internal and external factors, including the date of a parent's passing and physiological changes that take place as a child grows. Children may react to environmental changes differently as they age and may become better at anticipating how those changes will affect them. Despite these systems, the focus of this study is on children's microsystems, which are directly related to the learning environment at school.

2.1.3 Social Cognitive Theory

Bandura's social cognitive theory (SCT) of human cognition emphasises the crucial role that self-beliefs play in human cognition, motivation, and behaviour. According to LaMorte (2016), social cognitive theory (SCT) "posits that learning occurs in a social context, with a dynamic and reciprocal interaction of the person, environment, and behaviour." SCT places a strong emphasis on developing a self-system that gives individuals some measure of control over their ideas, emotions, and behaviour (Mimiaga, Reisner, Reilly, Soroudi & Safren, 2019). SCT emphasises the importance of observing, modelling, and imitating other people's behaviours, attitudes, and emotional reactions. SCT considers the intricate relationships between environmental and cognitive factors that influence how people learn and respond. According to LaMorte (2016), SCT considers how people acquire and maintain behaviour while also keeping in mind "the social environment in which individuals perform the behaviour." Regarding the social learning theory, Bandura (1977) agrees with the behaviourist learning theories of classical conditioning and operant conditioning.

Because it provides a theoretical justification in regard to students and staff, the social cognitive theory has been related to climate accomplishment (Bandura, 1993, 1997).

Students might exert power over generating this environment in the classroom via accumulation and collective effectiveness that result in this (Gummadam, Pittman & Ioffe, 2016). This describes the influence academic staff members have on students' academic progress and how their viewpoints may inspire the latter. The "bridge" between the cognitive approach and conventional learning theory is frequently referred to as SCT (i.e., behaviourism). This is due to the fact that it emphasises how crucial mental (cognitive) components are to learning. Bandura (1977), in contrast to Skinner, believes that children actively analyse information and take into account the relationship between their actions and the outcomes.

Cognitive processes are necessary for observational learning, which cannot take place without them. These mental processes affect or interfere with learning to determine if a new response is learned. Therefore, it follows that by inference, children process what occurs in their educational environment, and as a result, these factors have an impact on their way of thinking as well as their academic performance. People do not just mimic a model's behaviour without giving it any thought. Before imitation, there is a mental process called mediation. As a result of watching the behaviour (stimulus) and choosing whether or not to imitate it, something happens (response).

The SCT acknowledges the significance of mental processes in deciding whether or not to replicate a behaviour. As a result, the school atmosphere has an impact on students' perceptions of their degree of participation. This underlines the significance of the authoritarian climate model in this research, which views student involvement as a constituent of school climate. Once again, the social cognitive theory serves as the foundation for understanding how the surroundings of the students, their perceived degree of participation, and its consequent consequences on their cognitive development are interrelated. As a result, SCT offers a more thorough account of how

children learn by acknowledging the function of mediational processes. Again, the Social Cognitive Theory emphasises social influence and social reinforcement from both the outside and inside. The social context in which people behave as well as their individual learning and maintenance processes are both taken into account by social cognitive theory. The theory takes into account a person's past experiences, which influence how they will behave in the future. Prior experiences have an impact on reinforcements, expectations, and expectancies, which in turn determines whether or not someone would engage in a particular behaviour and why they do so.

Six constructs were developed as part of the SCT theory;

- i. Reciprocal Determinism - The core concept of SCT is reciprocal determinism. This refers to the dynamic and reciprocal relationship that exists between behaviour (responses to stimuli in order to attain goals), environment (external social context), and an individual (a person with a set of learning experiences)
- ii. Behavioural Capability - It is a term used to define someone's actual capacity to engage in a behaviour by utilising the necessary knowledge and skills. To properly engage in a behaviour, a person must be aware of both the what and the how. People learn from the effects of their activities, which also affect the environment in which they live.
- iii. Observational Learning - This posits that individuals can watch and observe another person behave in a certain way before replicating that behaviour. This is typically exhibited via "modelling" behaviour.
- iv. Reinforcements - This term refers to the internal or external responses to a person's behaviour that affect the likelihood that the behaviour will continue or

stop. Reinforcements are either positive or negative, self-initiated or environmental.

- v. Expectations - This refers to what can be inferred from someone's conduct. People ponder the results of their decisions before acting, and these envisioned results can determine whether the behaviour is successfully carried out.
- vi. Self-efficacy - This has to do with how much a person believes they can carry out a behaviour successfully.

These constructs provide a comprehensive framework for understanding human behaviour and learning. Each construct plays a crucial role in shaping individuals' thoughts, actions and motivations. Overall, these constructs provide valuable insights into how individuals learn, develop and interact within educational settings.

Social cognitive theory sheds light on how meaning and behaviour are generated in relation to people and their environments (Bandura 1986). The theory states that motivation is a goal-directed behaviour that is context-dependent and significantly affects behaviour (Bandura, 1997; Pintrich and Schunk, 2002). The environment has an impact on how people perceive themselves, their surroundings, and in this example, how students perceive themselves as active learners in the classroom. This theoretical perspective argues that the quality of interactions in the academic, community, and safety domains has a substantial impact on school climate by setting high academic standards, fostering supportive teacher-student relationships, and maintaining an environment in which students feel emotionally safe and secure in taking academic risks. In studies on school climate, the performance goal structure is typically examined using social cognitive theory (Meece, Anderman & Anderman, 2006; Urdan and Schoenfelder, 2006). Setting goals is an excellent illustration of how schools may promote motivated attitudes in their students and influence their academic progress.

For instance, SCT, as opposed to learning theories based on basic reinforcement, may explain a much wider spectrum of complex social behaviours (such as gender roles and moral conduct). At this background, based on the Social Cognitive theory, the development of and testing of the third hypothesis is thus grounded which is stated as thus;

H₀: There is no significant moderating influence of student involvement in the link between school climate and academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly.

2.2 Conceptual Review

This section of the review is an evaluation of the key concepts of concern in this study. The purpose is to provide a background on the measurement variables in this study so as to enhance clarity of the concepts as used throughout the study and its discussions. Key amongst the concepts reviewed in this section included the concept of school climate and its associated models of measurement as used in this study, the authoritarian school climate model, followed by an explanation of the multidimensional nature of this study in measurement of school climate; concept of students' engagement, and concept of academic performance.

2.2.1 Concept of School Climate

Educational research focuses on school-related variables since certain individual characteristics (such grade level, gender, etc.) cannot or may be difficult to alter. Due to the fact that although there are certain elements that educators cannot readily modify, they are less effective in resolving issues than other factors (e.g., curriculum, teacher behaviour) in school systems (Circir & Sargn, 2018). In this situation, educators' interventions may alter the nature of the learning environment. Along with the

architectural aspects of the facility, the connections between the individuals who work at the school also affect how well the learning environment functions (which is also expressed as the school climate and the learning-teaching process). In addition to the physical characteristics of the institution, the school climate, which is frequently defined as the characteristics of relationships between the people in the school and the learning-teaching process, influences the standard of the learning environment.

The social atmosphere of schools is made up of interactions between staff members, including instructors and students, administrators and staff members, and students and administrators (Makewa, Role, Role & Yegoh, 2011). It also includes elements like respect, compassion, reliance, excellent communication, equitable participation possibilities for all students, and community-school linkages. Numerous scholars have studied the social climate of schools, and the general finding of these investigations is that the social climate of schools has the ability to produce both beneficial educational and psychological results as well as negative consequences on both children and school staff (Kwabena & Baafi, 2015). Freiberg (1998) asserts that in addition to having a significant influence on connections between teachers and students, a school's social environment can also have a significant influence on students' academic performance and overall school progress. (p. 44).

Academic performance levels may be raised and maladaptive behaviour can be decreased by fostering strong interpersonal interactions and providing the best learning opportunities for students across all demographic groups (McEvoy & Welker, 2010). The importance of positive interactions and extracurricular activities involving both instructors and students may significantly improve school coherence (a component of school environment) (Makewa, Role, Role & Yegoh, 2011). Every student in the school

is considered to be a part of a group, and a student's performance will be influenced by how well they get along with their fellow group members. High-achieving students make up groups because their interactions are likely to have an impact on their academic performance (Agba, Ikoh & Ashibi, 2010).

It has been shown that pupils who are effective in their social interactions with their classmates also excel in their academic work (Buckley, Schneider & Shang, 2014). In alternative schools, positive student-teacher interactions were linked to both excellent behaviour and some degree of informality (Agba, Ikoh & Ashibi, 2010). Additionally, several studies have shown a connection between successful risk reduction and health promotion initiatives and an atmosphere of safety, concern, participation, and responsiveness in the classroom (Catalano et al., 2012; Berkowitz & Bier, 2015; Greenwald, Hedges & Laine, 2016). Strong school attachments are often fostered in environments that are secured, compassionate, participative, and responsive, and these environments may also serve as an optional starting point for intellectual, social, academic and emotional development (Blum, McNeely & Rinehart, 2012).

Zgenel, Alkan-Yılmaz and Baydar (2018) described school climate as the norms, values, and expectations that promote students' sensations of social, emotional, and physical security. The whole set of internal variables that influence student behaviour and set the school apart from others may be referred to as its climate (Cırcır & Sargın, 2018). The social interactions between instructors and students, which are impacted by social and educational ideals, create the school climate. It may be said that the social environment of the school and classrooms as a whole is connected to the school climate (Maxwell, Reynolds, Lee, Subasic & Bromhead, 2017). The term "school climate" relates to how all instructors see the official and informal organisational structure, their

co-workers, the leadership of the principal, and how things are conducted in the workplace (Klnç, 2013). As a result, the school environment has a multifaceted structure and has been examined from several angles by scholars.

Hoy and colleagues (1991), who are focusing on school climate, state that it is "the relatively persistent character of the school environment that is perceived by participants, impacts their conduct, and is based on their collective impression of behaviour in schools" (p. 10). Once again, people's attitudes and behaviours inside an organisation have an influence on the school atmosphere as do their experiences there. Halpin (1966), claims that each school has a distinctive environment that anybody can detect upon entering the building, schools likewise vary in terms of their atmosphere. Moving to other schools, the author continues, "one sees that each seems to have an attitude of its own" (Halpin, 1966, p. 131).

This idea is supported by Freiberg (1999), who lists "feel, wellness, health, learning environment, safety, openness, and care" as the typical terms people use to describe school climate (p. 13). Each student's educational experience is unique and special (DeWitt & Slade, 2014). According to Cohen et al. (2009) and the National School Climate Center (NSCC), "The tone and personality of school life are referred to as the school atmosphere". It is built on patterns of experiences from school-life and encompasses leadership and organisational structures in addition to social norms, objectives, and values. Students are more likely to develop and learn the skills they need for a successful, productive life in a democratic society when their school climate is secure and supportive. People may feel socially, emotionally, and physically secure in this setting as a result of the standards, attitudes, and expectancies that exist there. People are engaged and thankful.

Students, families, and teachers collaborate, create, implement, and sustain a common school vision. Teachers serve as role models and cultivate virtues that stress the advantages and joy of learning. Each individual makes a contribution to the school's operations and environmental maintenance (Cohen et al., 2009). According to Hoy et al. (1991), "climate is a generic phrase that relates to teachers' impressions of their work environment; it is impacted by formal and informal interactions, personalities and participation, and leadership in the school" (p. 9). As a result, the focus is placed on the human qualities that are crucial in establishing the school's atmosphere. The interactions between the organisation's stakeholders in the community, including parents, teachers, and students, have been linked to the school's attitude and the climate in the learning environment.

It is generally expected that quality teachers significantly influence pupils' academic performance. Teachers play a crucial role in supporting the academic performance of students through their qualities and actions. When teachers possess qualities such as subject knowledge, effective communication skills and enthusiasm for teaching, it can positively impact students' learning experiences. Additionally, qualities like patience, empathy, and the ability to create a supportive and inclusive classroom environment can foster a sense of belonging and motivation among students. By providing clear instructions, offering constructive feedback and adapting teaching strategies to meet individual needs, teachers can help students overcome academic challenges and reach their full potential academically.

According to Freiberg (1999), "school climate is about that characteristic of a school that fosters a feeling of belonging to something greater than oneself while also assisting each individual to experience their own particular value, dignity, and significance". The

environment of a school may either promote resilience or become a danger factor for those who work and study there (p. 11). The author contends that the success or failure of the school atmosphere may have an impact on a child's academic performance. The literature recognised the reality of climate and its influence on an organisation or school as being genuine via the evaluation of several definitions of school climate. They came to the conclusion that the organisation's climate is an internal or intrinsic behaviour that has an impact on all of its members (Ehrhart et al., 2014). The researchers also discovered that a school's atmosphere has a direct impact on its efficacy (Freiberg, 1999).

Researchers found that an organisation's environment develops from its members' common values, traits, and features (Cohen et al., 2019). According to the definition used in this research, school climate refers to how well students interact with caring people who are dedicated to fostering healthy connections while offering a secure learning environment for all students. It is important to research how a school's climate affects students' academic performance in order to better understand its effects on education (Cohen et al., 2019; Sirin, 2015; Zullig, Koopman, Patton & Ubbes, 2010).

On the other hand, Calik and Kurt (2010) created a method for assessing school climate that is based on 4 dimensions: achievement oriented, supportive teacher behaviours, a safe learning environment, and positive peer interaction. According to Calik and Kurt (2010), in the majority of previous measures, the school environment was decided upon by taking into consideration the opinions of instructors or school administrators, necessitating the need for a scale to assess students' impressions. "Positive school climate is associated with well-managed classrooms and common areas, high and clearly stated expectations concerning individual responsibility, feeling safe at school,

and teachers and staff who consistently acknowledge all students and fairly address their behaviour," according to the research. The school climate can also be described as "negative" (Maxwell, Reynolds, Lee, Subasic & Bromhead, 2017). Although it boosts teachers' academic optimism, a supportive, encouraging, and welcoming school atmosphere is also directly linked to student accomplishment (Klınç, 2013). (Koth, Bradshaw, & Leaf, 2018). Effective teaching practice needs a favourable school climate, which also allows pupils to improve their academic performance in a setting where they feel valued (Altuntas, 2017).

Less behavioural issues occur in schools with a pleasant school climate or environment, and academic success and school dedication also arise (Garcia, 2020). Burnout and stress levels rise for everyone in the system when the school atmosphere is poor (Cırcır & Sargın, 2018). According to prior studies, students adopt human values more as their perceptions of school climate improve (as positive climate perception increases); they also perform better academically (Konold, Cornell, Jia & Malone, 2018; Yldrm, 2017); are more engaged with and attached to their school and feel more like they belong (Bakr-Ayar & Kaya, 2017). As students' evaluations of the school climate deteriorate, bullying victimisation rises (Aldridge, McChesney & Afari, 2018), students feel more alienated from school (Uline & Tschannen-Moran, 2018), and levels of school burnout increase (Cırcır & Sargın, 2018). (As negative climate perception increases).

2.2.2 History of School Climate

There is a lot of information that shows how important school climate is and how it affects student performance (Anderson, 1982; Cohen, McCabe, Michelli & Pickeral, 2009; Ellis, 1988; Frieberg 1998; Hoy & Hannum, 1997; Thapa, Cohen, Higgins-D'Alessandro & Guffey, 2012). Early Twentieth-century author Perry (1908)

highlighted the requirement of fairness, peace, and order in schools as well as the significance of staff members having empathy for the children. He argues that because environments have an impact on students, schools should offer more than just "basic housing" (p. 303). In 1916, Dewey stated that schools ought to promote civic engagement and take advantage of the social component of education. Although Dewey did not use the phrase directly, components of a good school climate were included in his ideas on teamwork, social skills, and education for social responsibility and democracy. Early theorists recognized the value of a healthy school climate for growth, development, and learning. According to Anderson (1982), the development of school climate was influenced by the study of organisational climate research and school effects research. Researchers examined the impact of contextual elements on people's behaviour. According to Anderson, researchers started systematically analysing organisational climate in the 1950s.

In their earlier research, Halpin and Croft (1963), developed the Organisational Climate Descriptive Questionnaire (OCDQ) to assess a school's climate, and concentrated on teachers' opinions of their relationship with the principal. Halpin and Croft recognized eight elements of teacher and principal behaviour that influenced the environment of a school. Disengagement, hindrance, esprit, and intimacy were among the teacher dimensions. The term "disengagement" relates to the way teachers collaborate, which is frequently not as a team. Teachers' conceptions of their duties, such as the belief that the job they are expected to do is busy labour and needless, were referred to as obstacles. Esprit focused on how happy teachers are with their jobs and how they feel about them, including whether or not they think they are having an impact and that the school community is taking care of their needs. Intimacy also had a bearing on teachers' perceptions of meaningful connections within the school community. The principal's

dimensions were primarily characterised by aloofness, production emphasis, trust, and consideration. The term "aloofness" relates to the notion that the principal is more concerned with the rules than with the students. The notion that the principal is task-oriented was referred to as "production emphasis." Teachers defined "trust" as the idea that the principal functions well in a collaborative environment and actually cares about the school community. The growth of school staff was taken into consideration, including paying closer attention to how instructors are treated.

The early school climate movement played a significant role in enhancing academic performance by recognizing the importance of creating a positive and supportive school climate. By focusing on factors such as school safety, student engagement and supportive relationships between students and teachers, the movement aimed to improve overall school climate.

These factors made it possible for schools to rate their organisational environment on a scale of "open" to "closed," based on the perceptions of its instructors. Members of an open climate were enthusiastic and working toward the school's objectives, whereas those in a closed climate were indifferent and making minimal progress (Halpin & Croft, 1963). By asserting that socioeconomic status (SES) supersedes all other factors in a school, Coleman, McCabe, Michelli and Pickeral (1966) began a debate concerning school climate variables. He came to the conclusion that school climate and SES were the two most important variables in determining a child's academic success, with family origins having the least bearing on student performance. Edmonds (1979), in contrast to Coleman et al., said that administrative leadership, high standards for student academic performance, a renewed emphasis on fundamental skills, a safe and orderly atmosphere, and regular monitoring of student performance are all elements that affect

students' academic performance. In his study, which served as the basis for the Effective Schools research, Edmonds emphasised the role of school climate as one aspect that affects student academic performance and learning.

2.2.3 School Culture and School Climate

Theorists have identified organisational culture and climate as overlapping concepts (Miner, 1995). By viewing organisational or school climate from the standpoint of psychology and school culture from the perspective of anthropology, Hoy, Tarter and Kottkamp (1991) distinguished between climate and culture. They asserted that the climate of a school is determined by how stakeholders perceive other people, events, and things with respect to their experiences and feelings, as well as how they react with stimuli. According to Freiberg (1998), school climate is determined by those who are actively participating in the organisation, making it a psychological perspective. While school culture is typically seen as the organisation's values and norms, school climate is frequently regarded as behaviour (Hoy, 1990; Heck and Marcoulides, 1996). Schein (1985, 1996) confirmed there is a connection between culture and climate when he asserted that norms, ideas, traditions, and climate are all examples of culture.

Despite being modest, there is a conceptual gap between culture (common norms) and climate (shared perceptions) (Hoy & Feldman, 1999). Hoy and Feldman argue that this distinction is important because common perceptions of behaviour are simpler to measure than shared ideals. They came to the conclusion that since climate has less abstractions than culture, it presents less of a challenge for scientific measures (it is more concrete and less symbolic). The climate is the construct of choice when evaluating the organisational fitness and health of a school. Best Practice Briefs (2004) defines school culture as "a reflection of the shared beliefs, values, and assumptions

that give an organisation its character and norm for acceptable behaviour." These ideas are fundamental to the company and, for the most part, people automatically adopt them; they are so ingrained that they are prevalently taken for granted. Best Practice Briefs (2004), once again, describes how school culture is based on prior experience and serves as a model for future action depending on how an organisation views things as done. However, identifying the factors that contribute to a school's culture may be difficult. Every school has its own distinct culture. Either the school has a productive culture characterised by staff and students' self-assurance, trust, cooperation, and drive to produce their best work, or the school has an unproductive culture characterised by a lack of coherence and vision. Finnan (2000), referenced in Hinde (2014), asserts that school culture is not a static thing. As a result of interactions with others and observations of life and the wider environment, it is always being shaped and created. Hinde (2014) concurs that interactions between faculty, students, and the community shape school culture. It creates a shared standard of behaviour for everyone associated with the school. The interactions of the staff members influence culture, and the staff members' activities are governed by culture. It's a circle that never ends.

Hoy and Sabo (1998), in their analysis of the research on school climate and culture, state that they tend to use measures of school climate and list the following benefits:

1. A focus on statistical analysis and survey technologies;
2. The significance of school climate as an independent variable in explaining student outcomes and staff performance; and
3. The capability of school climate metrics to generate a "snapshot" of organisational and individual behaviour with the express intent of managing and altering that behaviour.

Statistical analysis and survey technologies are crucial for obtaining quantitative data and understanding the various dimensions of school climate. It helps to identify relationships between different variables and identify patterns or trends within the data, ensuring rigorous and evidence-based research. Recognising school climate as an independent variable allows researchers to investigate its unique contributions to student and staff outcomes, providing valuable insights for educational practices and policies. The school climate metrics provide valuable insights into the state of schools which can inform targeted interventions and strategies to improve school climate.

It is essential to understand that culture is diverse because it employs a variety of unique and peculiar operating methods. When an organisation's objective, purpose for being, tasks it must complete, and constituencies it should serve are all understood, its culture will ensure that operations run smoothly. An organisation's culture always guarantees that things go wrong when the dynamic patterns of beliefs, values, attitudes, wants, ideas, and behaviours are improper or conflicting.

2.2.4 School Climate Dimensions

One major challenge with school climate research, according to Anderson (1982), is the multiple aspects that have emerged within the field. Tagiuri (1968) identified the dimensions as the school environment, milieu, social structure, and culture. The school environment refers to the physical and material aspects of the school. The term milieu refers to the social aspects of schools that deal with individuals and groups. An organisation's culture is made up of its belief systems and values, whereas social systems are regions that involve relationships between individuals and groups. According to Anderson (1982), Tagiuri's dimensions contained a full construction of school climate, and the construct incorporated the concept that school climate is the

entire atmosphere within a school setting. Hoy, Tarter and Bliss (1990) proposed that a strong organisation has the aspects of a good school climate as a tool to further investigate a school's overall environment.

According to Cohen et al. (2009), school climate is a “collective phenomenon” that extends beyond one student's personal experience inside a school. Cohen (2009) states that, "school climate relates to the nature and quality of school life." The theoretical foundation of Hoy et al. (2002) serves as the foundation for Cohen's study on the four aspects of climate. "Safety (teacher professionalism), connections (collegial leadership), teaching and learning (achievement press), and the institutional environment (institutional vulnerability)" are some of the factors defined by Cohen et al. (2009). The dimensions from Hoy et al. (2002), included in parenthesis, are parallel constructions. Other scholars concur that the four dimensions determine a school's climate's quality, and that elements of each domain may overlap and support one another (Cohen, 2014; Cohen et al., 2009; Hoy et al., 2002; Maxwell, 2016).

2.2.4.1 Safety

The first key characteristic of school climate outlined by NSCC is safety. It is divided into three sub-dimensions: rules and norms, physical security, and social-emotional security. The climate dimension includes students' perceptions of well-communicated laws, clear and consistent standards, and a sense of physical and emotional safety. A fundamental human need is to feel secure on all levels: socially, emotionally, intellectually, and physically (Maslow, 1943). Students who feel safe at school are more likely to learn and develop good habits (Devine & Cohen, 2007). The term "school safety" refers to the level of order and discipline present, as well as the physical and emotional security provided by a school and created by its members (Devine and

Cohen, 2007; Wilson, 2004). Student safety extends beyond physical security; it is vital because it provides a sense of security in the school, which promotes student learning and support (Gregory et al., 2010). The three characteristics most commonly used to describe the safety domain of school climate are physical safety, emotional safety, and order and discipline. Implementing effective classroom management methods is a useful strategy for increasing school safety.

A more secure and supportive school environment in which students thrive emotionally, socially, and academically is largely dependent on the quality of connections among many people, including students, parents, school officials, and the community (Demaray et al., 2012; Loukas, 2007). While some school cultures are inclusive, friendly, and supportive, others are exclusive, unwelcoming, and even hazardous. As a result, it has been discovered that school climate can have a positive impact on the strength of the learning environment by producing positive educational and psychological outcomes for students and school personnel; contrarily, it can become a significant barrier to learning by deterring optimal education and growth (Freiberg, 1998; Hoy & Hannum, 1997; Johnson & Johnson, 1997; Maslowski, 2001).

2.2.4.2 Relationship

Teaching and learning are first and foremost relationship processes. The systems of rules, goals, values, and relationships that shape unions in schools define school climate. One of the most important aspects of school relationships is how connected people feel to one another (Thapa, Cohen, Guffey & Higgins-D' Alessandro, 2013). Relational (how "connected" students feel towards one another, is one of the most essential qualities of school climate. School connection refers to how close students feel towards at least one kind and responsible adult at school and has received a great deal of attention and research. According to Cohen et al. (2009), this dimension

comprises instructional quality, opportunity for social, emotional, and ethical learning, leadership, and professional progress.

According to Thapa et al. (2013), this dimension is one of the most significant school climate elements, with mutual support and collaborative learning as two techniques to promote a learning environment focused on academic performance. This model also looked at classroom rules and regulations that differ from those enacted at the system level and encourage cooperation, trust, and respect among students (Thapa et al., 2013). The NSCC (2012) also emphasised excellent instruction, adaptability in how new skills are displayed, autonomous thinking, tailored learning opportunities, and challenging academic environments. Strong school ties are a good indicator of adolescent physical and intellectual performance ((McNeely, Nonnemaker, McNeely & Blum, 2002; Shochet, Dadds, Ham & Montague, 2006; Whitlock, 2006). When teachers actively engage with and show support for their pupils, students are much more likely to be involved in their work and behave better (Skinner & Belmont, 1993). The climate of the school is influenced by the interpersonal ties between students and staff. Having assistance at school has a substantial impact on how much bullying there is among high-risk primary school pupils. On the other hand, care and support from peers is directly related to a decrease in bullying in the high-risk secondary pupils (Gage, Prykanowski & Larson, 2014).

School climate is significantly influenced by social connections and interactions. Relationships between the principal and teachers, as well as between teachers and students, have an impact on students' academic success (Wilson, 2004). This is determined for students by the presence of assigned responsibilities that give them a sense of value, the degree of involvement in their studies, the level of public acclaim

they receive for their academic performance, and the degree of comfort they feel with their teachers (Bradshaw et al, 2014; Zullig, Kooperman, Patton & Ubbes, 2010).

2.2.4.3 Teaching Excellence

Teaching and learning are two of the most crucial elements of a positive school climate. Both administrators and educators should be able to clearly identify the sets of rules, objectives, and values that affect the learning and teaching environment of the school. The learning abilities of pupils are said to be enhanced by a positive school climate (Thapa, Cohen, Guffey & Higgins-D' Alessandro, 2013).

According to Cohen et al. (2009), this dimension comprises the quality of teachings, chances for interpersonal, sentimental, and moral learning, leadership, and professional development. Examples of teaching effectiveness include teaching methods, student interaction, and the integration of reinforcement into a classroom or school (Cohen et al., 2009). Thapa et al. (2013) cite this dimension as one of the most critical aspects of school climate, citing mutual trust and collaborative learning as two approaches to fostering a learning environment focused on academic performance. The NSCC (2012) also underlined excellent instruction, adaptability in how one can demonstrate acquired skills, independent thinking, tailored learning chances, and demanding academic environments. Researchers have looked into the connection between student classroom participation, school climate, and academic accomplishment. Studies show that encouraging students to engage in academic learning boosts their likelihood of academic success (Ladd, Birch & Buhs, 1999; Voelkl, 1995).

Additionally, studies have shown that shared objectives and respect for one another have a positive influence on student engagement (Ennis, 1998). According to Wang and Degol (2016), different teaching methods and instructional strategies can have a

big impact on the learning results of their pupils. Supportive instruction, curriculum, instructor expectations, and student evaluation are common categories for these strategies and activities, beliefs, goals, and expectations of the teacher all have an impact on the learning process. Teachers' expectations can be reflected in the way they deliver academic challenges, which include high academic rigour and performance, as well as a focus on students' progress and improvement (Davis & Warner, 2015). Additionally, it is crucial to give students feedback using standardised tests and student assessments. These exams enable teachers to improve their instructional strategies and give students immediate, constructive feedback (Hoy & Adams, 2016).

2.2.4.4 Environment

Low academic success, a high antisocial behaviour rate, and a lack of clear rules and expectations are characteristics of challenging school climates with a chaotic learning environment. Such environments can be quite troublesome for pupils who require structure and clear expectations (Jimerson, Morrison, Pletcher & Furlong, 2006). Another issue is the calibre of the educational infrastructure and how it relates to the performance and attitude of students as well as to the mindset and behaviour of teachers (Uline & Tschannen-Moran, 2018). There is a correlation between facility conditions and student accomplishment, according to researchers looking into how school facilities affect student learning and behaviour as well as teacher retention (O'Neill & Oates, 2001).

In contrast, school facilities in bad shape resulted in decreased learning, and poorly run institutions result in mediocre performance (Buckley, Schneider & Shang, 2014). Numerous further studies revealed connections between various aspects of school building design and learning results (Earthman, 2002; 2004). Architectural age, climate control, quality of air circulation, light, acoustic control, various designs, and general

perception are specific building attributes connected to human comfort that are associated with student accomplishment (Uline & Tschannen-Moran, 2018).

Physical characteristics may have a complex dynamic effect on people's attitudes and behaviours. Learning climate was shown to be connected to general building condition, the size and layout of instructional areas, and continuous maintenance in a study of the association between building condition and learning climate (Lowe, 1990). In a different study, teachers believed that a school's general appearance, sanitation, and orderliness affected students' behaviour (Lackney, 1996). Property damage, absenteeism, suspensions, disciplinary issues, aggression, and smoking are just a few of the attitudes and behaviours of students that have been linked to the condition of the school's physical facilities (Schneider, 2002). The quality of the school climate and academic performance are clearly related, according to various studies (Berry, 2012). McGuffey (1982) established a basis for the relationship between a school's physical setting and students' academic success by replicating data from several studies that showed a connection between academic success and the quality of infrastructure, newer buildings, better lighting, natural ventilation, and indoor air quality, as well as particular structural features like science labs and libraries. The main methods used in these studies to investigate the connection between classroom settings and students' performance on standardised exams were correlational analyses and multiple regression analyses.

Buildings of inferior quality have an impact on more than just students. It has also been demonstrated that the quality and type of the built learning environment affects teachers' attitudes, behaviours, and productivity (Lowe, 1990; Schneider, 2003). Researchers discovered that teacher retention/attrition choices were highly connected

to the quality of school infrastructure in a study that included a large sample of teachers in Chicago and DC schools, even after controlling for other factors that would be considered to affect attrition (Buckley et al., 2004, p. 8). More over half of the teachers in DC and about one-third of the instructors in Chicago expressed dissatisfaction with their physical working environments. Indoor air quality (IAQ), thermal regulation, noise control and acoustic, proper classroom lighting, and the amount of natural sunlight were the factors that most significantly impacted the quality of teachers' work life. Teachers were more likely to look for work elsewhere if they felt that the conditions in the building were harmful to their health or were stressed out by the excessive noise, bad acoustics, or lack of thermal controls.

2.2.5 Types of School Climate

Halpin and Croft's study, which categorised schools according to their organisational climatic conditions, is the most well-known (Musaazi, 1998). In schools, there are six organisational climates, according to Halpin and Croft. The organisational climate conditions are accessible, independent, structured, friendly, and paternalistic. The director of an open school is result-oriented while also being concerned about the professional and personal development of his personnel. "The principal attempts integration of the organisation's aims and the requirements of students and instructors," writes Musaazi (1998). The head offers the required incentive to the teachers. By fostering a supportive work atmosphere, he assists people in meeting their needs. He is approachable, visible, and open to discussion. The teachers have a friendly relationship. The level of job satisfaction is excellent. As a result, teachers are dedicated to the school's objectives. This climate is referred to as "positive school climate" by Ainley (2004). According to him, this type of environment encourages students to reach higher academic goals.

The instructors' great level of autonomy is what largely characterises the autonomous school climate. The school's headmaster has little to no influence over the instructors. He likes to let others take the lead and suggest their own approaches to solving problems. In this environment, accomplishing duties is prioritised over meeting social needs, and setting and achieving company goals receives less attention. In reality, the school's head does not outline tasks and responsibilities, and there is no plan or structure in place for achieving the institution's goals. As a result, teachers are far more focused on satisfying the social needs of their students. Efficiency on the part of the headmaster, close staff supervision, and attention primarily directed toward job completion are all essential components of a controlled school environment. The headmaster concentrates on finishing the assignment and uses close observation to make sure that teachers carry out their duties in accordance with the established procedures. The headmaster's style of leadership is autocratic in this setting; he is the one who decides everything that happens at the school. He doesn't care about teachers' professional development, expansion, or accomplishment. This environment is more focused on completing tasks than it is on fulfilling social obligations (Musaazi, 1998). Brady (1988) claims that the head's attention to the business of the school and his stringent supervision stress the teachers.

2.2.5.1 Open climate

The school's open climate is closely linked to its expressive qualities. The authenticity and openness of connections between school authorities, teachers, students, and parents may both be easily demonstrated in an open climate. Hoy (1998) asserts that open climate reflects both the director's openness to and acceptance of teachers' opinions as well as his devotion to and dedication to his position. According to the researcher, the leader shows genuine concern for the teachers. He makes a special effort to avoid

interfering with instructors' responsibilities by encouraging staff members to accomplish jobs as quickly as they can.

In an open school environment, teachers are depicted as being polite and considerate, helpful, and highly regarded in the field; they are aware of and prepared to meet students' needs by working hard to help the children succeed in their goals; and they appear to be reaching out and supporting one another both personally and professionally. Teachers, according to Halpin (1966), work in groups to ensure the success of their students. Teachers and leaders alike make themselves available to students and parents to build close relationships. The findings suggest that a healthy and open organisational climate at school is responsible for the behaviour that has the full approval of the school's top management, the less visible top-down behaviour, and the low-level stressful conduct of instructors. If schools have a more welcoming environment, teachers will be more committed, devoted, and happy. Students will be more productive in their school performance if the school climate is more open. The body of research on school climate is generally in agreement that an open school environment promotes the growth of positive outcomes in students' school performance by promoting good mental and spiritual health as well as teacher and principal work satisfaction. Hoy (1998) asserts that cultivating an open school environment takes time and is the outcome of a thoughtful development engineering process carried out by both teachers and school principals. Strong recruiting practices, which ought to be determined by reliable personality tests, are also responsible for that.

Researchers' observations on the openness of school climates to academic performance were investigated by Hoy and Miskel (1992). They claim that open school climates (schools with high levels of thrust and esprit but low engagement) do not consistently

correlate with student progress. They claim that schools with the most positive characteristics do not always have the best student academic performance.

2.2.5.2 Autonomous climate

According to Halpin (1966), the autonomous climate is a type of climate that represents a setting in which teachers have a substantial degree of freedom to act in the classroom. The leader serves as an example of enthusiasm and vigour. There are not any threats or outside influences. Students are eager to learn, and teachers are excited about what they do. Parents, instructors, students, and managers all collaborate closely. In this environment, accomplishing duties are prioritised over meeting social needs, and setting and achieving company goals receives less attention. In reality, the school's head does not outline tasks and responsibilities, and there is no plan or structure in place for achieving the institution's goals. As a result, teachers are much more focused on satisfying the social needs of their students.

When students have a sense of **autonomy** in their learning environment, they feel empowered and motivated to take overseership of their education. This can lead to increased engagement, improved focus, and a greater sense of responsibility for their academic success. Additionally, it fosters a supportive and inclusive environment where students feel comfortable expressing their ideas and taking intellectual risks, enhancing critical thinking skills, creativity and overall academic performance.

2.2.5.3 Controlled climate

Dedication and perseverance are the main characteristics of the controlled environment. Performance of obligations is prioritised, even though the director is far from being a role model for dedication, and there is very little time spent on social engagements. On the other hand, teachers seem to put a lot of time and effort into their work and appear

to be entirely committed to it. Because of this, most of the time, there is almost no left time for people to talk to one another. Additionally, students are preoccupied with their homework and have little time for extracurriculars. In order to avoid getting too close to instructors, students, and parents, principals typically maintain a safe distance from them, according to Halpin (1966) and Silver (1983). Based on their opinion, in order to focus their time on something more beneficial, parents are discouraged from coming to the school to talk to instructors about their children's problems.

2.2.5.4 Familiar climate

The "laissez-faire" mentality (let them do it) dominates the average classroom climate, according to Silver (1983). The principal's main goal is to create a social atmosphere that makes it easier to complete any given activity. Because of this, many teachers are not committed to their core duties. Others are not always in agreement with their co-workers or the principal, while some of them despise the manner a principal leads. As a result of their collaborative interests, people who are not fully devoted come together to establish a distinct group. The majority of students don't take studying seriously, while some others make up a variety of fictitious and baseless justifications for skipping class or being absent (unexcused absences). Most parents are not concerned with their children's education and are unaware of what their children are doing in class. They think they are exempted from going to parent-oriented meetings. According to Halpin (1966), the actual growth of the school receives little attention in this kind of relaxed setting between the principal and the teachers.

2.2.5.5 Paternal climate

A paternal climate, according to Costley and Todd (1987), is one in which the school principal is a hardworking person who, however, has little effect on the staff; to them, the concept of "hard-working" is foreign. Although leaders and teachers are somewhat

approachable, teachers' expectations are frequently exaggerated. Although the school's principal is enthusiastic and vibrant, his leadership style tends toward autocracy. Because of this, a great majority of educators, learners, and parents choose to keep their distance from the head. Parents only visit their children's schools when they are compelled to, such as when teachers force them to do so. This is why students often have trouble communicating their issues and challenges.

2.2.5.6 Closed climate

Hoy and Sabo (1998) assert that the closed climate is the complete antithesis of the open climate. The most significant of a closed climate's essential characteristics, according to Halpin (1966), is a lack of commitment and productivity. The principal and the teachers specifically show very little commitment. There is minimal focus on meeting responsibilities while the principal is engaged in routine activities, unimportant items, or pointless paperwork that teachers attend to a low degree. The principal of the school is known for being strict and in charge. He is inaccessible, unappreciative, and inattentive. Because of this, most teachers are unhappy and unproductive. According to Hoy & Sabo (1998), the principals are not concerned about one another. Teachers also show a lack of respect for the management of the school, for one another, and even for the students. The antagonistic and divided nature of the teachers causes social pressure to grow in the school. According to Hoy (1998), a closed unhealthy climate has the same features as those described by Halpin. In such a setting, it would be impossible to expect children to achieve high academic standards or to have positive attitudes toward learning. This is because there would be no role model for them to emulate. A distinct atmosphere that new students might bring to a college is another potential. Last but not least, the involvement of parents of incoming students may affect the general atmosphere of the school.

2.2.6 Measurement of School Climate

For a variety of reasons, it has proven challenging to come to an agreement on how to measure the construct of school climate. Due to the wide range of theorised dimensions (Wang and Degol, 2016), the unit of analysis chosen for measurement (Maxwell et al., 2017; Grazia and Molinari, 2020), the use of subjective or objective measurement strategies (Cohen et al., 2009; Wang and Degol, 2016), and there is, as has been demonstrated, a significant range of definitions (Thapa et al., 2013; Rudasill et al., 2018). Recent systematic review studies (Grazia and Molinari, 2020; Lewno-Dumdie et al., 2020; Marraccini et al., 2020) have shown empirical support for choosing the best instruments. The study by Marraccini et al. (2020), for instance, identified 26 instruments for assessing school climate and came to the conclusion that the measures of school climate were drawn from various theoretical frameworks, had various dimensions, and differed greatly in terms of application. Similar to the review analysis conducted by Grazia & Molinari (2020), which revealed a fragmented area of study with poor comparability, the majority of the validated school climate scales were only employed in one study.

The diversity of definitions for school climate has led to misunderstanding and delayed research progress (Lee et al., 2017). This lack of definitional consensus has meant that school climate is measured inconsistently (Thapa, Cohen, Guffey & Higgins-D'Alessandro, 2013). Researchers looked at the several elements that distinguish one school's climate from another. Researchers have highlighted the use of subgroups to examine the various factors of school climate because schools have distinct organisational, cultural, and individual values. Lindahl (2011) asserted that a single factor can be powerful enough to prevent a school from making progress. Because one factor can have such a large impact, school leaders must be able to pinpoint exactly

where there is a problem. Many researchers have found numerous domains that have proven to have commonalities because there is no universal set of underlying values and beliefs.

The Comprehensive School Climate Inventory (CSCI), for instance, is a useful and scientifically sound tool suggested by the National School Climate Centre (Clifford et al., 2012), which provides feedback on how students, staff, and parents perceive their school's climate for learning. Organisations or groups of researchers have proposed various measures of school climate. According to the National School Climate Centre, school climate refers to the standard of living at a given institution of higher learning, taking into account organisational processes and structures, interpersonal relationships, and norms and values. The Organisational Climate Index (OCI) is another illustration of a descriptive metric. This index proposed by Hoy et al. (2002) examines four aspects of school climate: principal leadership, teacher professionalism, academic pressure on students, and vulnerability to the community. The Teacher Version of My Class Inventory, which evaluates teachers' perceptions of the classroom climate across five dimensions (a) overall student satisfaction with the learning experience, (b) peer relations, (c) difficulty level of classroom materials, (d) student competitiveness, and (e) school counsellor impact on the learning environment, was also recommended by Sink and Spencer (2007).

Measuring and evaluating school climate is an important step toward reaping the benefits of a positive school climate in schools. Measurements of school climate, according to the National Centre for Safe and Supportive Learning Environments, provide educators and administrators with data that is critical for determining what schools require, setting future goals, and tracking the progress toward those goals.

Measurement is the initial step in the improvement process, and it can be used to keep schools accountable by identifying school needs based on evidence (American Institutes for Research, School Climate Measurement, n.d.). Every school has its own climate, and in order to change it effectively, each school's climate must be examined independently (Doll & Cummings, 2008). To ensure an accurate picture of the school environment, the climate should be assessed on a regular basis.

2.2.7 Positive School Climate

The community at large, along with the student, parent, and staff groups in school, must actively create and maintain a positive school atmosphere. When the school community collaborates to assess and promote the school climate, healthy student development and learning are greatly enhanced. The capacity to work and engage in a democratic society as well as the key 21st-century qualities and dispositions are all developed (Comer, 2005). The growth and learning that students need to lead fulfilling lives in democratic societies are encouraged by a long-lasting, good school climate. The norms, values, and expectations that contribute to this atmosphere on a social, emotional, and physical level help people feel comfortable. A persistently good school climate significantly supports student academic performance and healthy youth development.

As soon as they enter a school, parents, teachers, students, and community people start to form opinions about what it's like to study and work there. Will my child be inspired by this school to achieve academic success and develop into a "life-long learner"? Is the school safe? Is the physical setting favourable for learning (including things like temperature, orderliness, and size)? How do students feel about being "connected" and cherished? Is the work that educators and students do interesting and worthwhile? Is there an intellectual culture that is demanding? How much do educators encourage the

development of the mental, interpersonal, cultural, psychological, and moral abilities and dispositions that form the foundation for learning and fulfilling involvement in a democracy? The responses of different student, parent, and school administrators are a reflection of group norms and values, which have a big influence on whether a learning environment is created or destroyed.

A supportive school environment is also beneficial to student learning. Student motivation to learn is significantly impacted by the school climate (Eccles, Wigfield, Midgley, Reuman, MacIver & Feldlaufer, 1993). Activities like social service learning and student governments, which let students take part in the education process and increase their familiarity with social and governmental organisations, are recognized and improve student participation (Homana, Barber & Torney-Purta, 2005). Student engagement, cohesiveness, regard, and trust are all enhanced by a supportive school environment (Ghaith, 2003). Excellent cooperative learning communities characterise a positive school climate. Research shows that engaging classroom education improves both teacher instruction and student learning through collaboration and debate (Marzano, 2007).

A sustainable, good school atmosphere, according to the National School Climate Council, encourages student development and learning, which are necessary for leading a fruitful, fulfilling life in a democracy. Such a climate consists of:

- Standards, principles, and guidelines that promote individuals' sense of social, emotional, and physical safety
- Community members from the school who are active and well-liked;
- Students, family, and teachers who collaborate to create and support a common school vision;

- Educators who promote a mind-set that highlights the advantages and fulfilment that may be attained from studying; (National School Climate Council, 2021)

When students feel safe in all aspects of their school experience, they are more likely to engage in their learning, build positive relationships and take risks academically. When community members are actively involved in the school, it creates a sense of belonging and connection for students. Having well liked community members further enhances the positive atmosphere, as students feel supported and valued by those around them. When all stakeholders work together towards a shared goal, it fosters a sense of unity and purpose within the school community. The collaborative approach promotes a positive and inclusive school climate where everyone's contributions and perspectives are valued. It enhances communication, problem-solving and decision-making skills. By highlighting the advantages and fulfilment that comes from studying, educators inspire students to see education as a pathway to personal and professional success. The school's operations and physical maintenance are supported by members of the school community.

2.2.8 The Authoritarian School Climate Model

The ASC model will be used to assess school climate, as suggested in the study's problem statement. A potential method for identifying important aspects of school climate and their links to good student outcomes is the authoritative school climate (ASC) model (Gregory, Cornell & Fan, 2011; Konold & Cornell, 2015a). This strategy was inspired by Baumrind's authoritative parenting work from 1968, which continues to serve as the basis for a substantial body of child development research (Larzelere, Morris & Harrist, 2013). A study on parenting discovered two essential parenting characteristics: the first is the parent's high standards and expectations for the child, and the second is the parent's degree of affection and support for the child. Two traits of

authoritarian parents who support their children are high expectations (also known as "demandingness") and emotional support (also known as "responsiveness"). Parents who are emotionally indulgent but lack organisation (permissive), highly organised and demanding but lacking in affection (authoritarian), or both are more successful than parents who lack both discipline and affection (disengaged or neglectful).

The ASC method was developed to assist schools in implementing the concepts of good standards and fostering relationships (Gill, Ashton & Algina, 2004; Gregory et al., 2009; Pellerin, 2005). Even though it is not assumed that an authoritative school environment would be totally congruent with authoritative parenting, there are commonalities that help organize studies on school climate. The two essential elements of an authoritative school climate are structure (or high expectations) and support. High standards are operationalized in the ASC model's structure to include both disciplinary and academic areas. Teachers at reputable institutions set high academic standards for their pupils and demand that they put in a lot of effort and learn a lot. Students who attend schools with high standards for behaviour see the policies as being fair yet tough. Students believe that rules are administered equally to all students and that they have the opportunity to defend themselves when doing something wrong.

An intolerance policy for school discipline, where students are severely punished for violating rules irrespective of the circumstances and whether or not the behaviour was deliberate, must be contrasted from the high school discipline standards of an authoritative school (American Psychological Association Zero Tolerance Task Force, 2008). According to past research, schools with an authoritative climate report lower rate of suspension than others (Catizone, Cornell & Konold, 2018; Gregory et al., 2010; Huang & Cornell, 2018). Lower rates of school suspension in the schools with an

authoritative school climate have the ability to assist schools in reducing the high suspension rates for Black and Hispanic children since they are independent of other student and school demographic variables and cover racial/ethnic groupings (Huang & Cornell, 2018). Adults who respect students and students who are willing to ask for help are both signals of support.

A welcoming environment and good standards, according to the authoritative model, are both required for a pleasant school climate. Studies on school climate have largely supported the premise that school support and structure should play a significant role in school climate research. For instance, Johnson's (2009) analysis of 25 research found that "children who are aware of school regulations and think they are fair" and "have excellent connections with their instructors" are likely to attend schools with lower levels of violence (p. 451). Positive correlations between academic results and the authoritative school climate model have been established in research. According to Pellerin's (2005) research, secondary schools that used authoritative techniques had lower dropout rates and lower rates of truancy. According to a review of NELS data, challenging but responsive schools were shown to have more engaged students than other types of schools (Gill et al., 2004).

The authoritative school climate model is supported by an intriguing body of research (Gregory et al., 2010; Konold et al., 2014). For instance, the Cornell and Huang (2016) study, which included 47,888 high school students, discovered that schools with strict but fair disciplinary strategies and encouraging teacher-student relationships demonstrated lower likelihoods of student use of alcohol, marijuana, and bullying, among other variables. When the demographic impacts of the school were taken into account, a second cross-sectional study of 48,027 high school students (Konold and

Cornell, 2015) found that an authoritative school atmosphere was linked to higher levels of school commitment and lower levels of peer hostility at both the student and school levels. The respect for legal systems both inside and outside of educational institutions has been linked to student perceptions of instructors as authoritative figures (Cava et al., 2013). Respect for institutional authority has been linked both adversely and positively to school climate (Moreno et al., 2009) and school violence (Cava et al., 2013).

According to Lee (2012), a positive school atmosphere was linked to greater student involvement and reading proficiency. Wang and Eccles (2013) discovered that "school structural support" (defined as teacher demands being clear and consistent) and "teacher emotional support" (defined as teachers' level of caring and support) were related with higher levels of behavioural, emotional, and cognitive engagement. They did not, however, adopt an authoritative analytical model directly. Academic performance was higher in schools that had high standards for students and encouraged teacher-student connections, according to two studies that employed the Authoritative School Climate Survey. The first study evaluated student engagement in school, course grades, and educational aspirations for high school completion and college enrolment to assess academic adjustment (Cornell, Shukla & Konold, 2016). Hypotheses were evaluated in separate state-wide samples comprising 423 middle schools and 323 high schools. Both samples indicated the following pattern of results: Higher disciplinary structure and student aid were all connected to increased student involvement in school, higher course grades, and stronger educational goals at the student level. At the school level, both samples revealed that better disciplinary structure and more student support were connected to higher involvement and grades. A second study of 315 high schools discovered that having high academic requirements was associated with a lower

dropout rate when students perceived their instructors to be helpful (Jia, Konold & Cornell, 2016). These studies took urbanity, low-income student percentage, minority student percentage, and school enrolment size into account. This succinct review makes it apparent that several research employing a range of metrics have backed a reliable model of school environment.

2.2.9 A Multi-Informant Perspective

When measuring concerns, perspective or perception, the use of ratings from numerous informants is considered best practice since it allows for the collection of a variety of perspectives that may be valuable for analysing a trait (Bauer et al., 2013). Assessments of school climate may rely on opinions from both students and teachers, albeit these viewpoints are likely to differ slightly based on their different positions. Student reports appear to be more closely tied to their own experiences of these situations than instructor reports, which have been defined as reflecting the environment in which students grow (Wang & Degol, 2016). Similarly, Ramsey, Spira, Parisi, and Rebok (2016) emphasise how instructors' expectations are a direct connection between the student experiences and their institutions.

The employment of various normative frameworks and varying chances to observe student interactions with others may also contribute to disparities in student and instructor perspectives. While students and teachers engage often in the classroom, peer relationships also place frequently outside of it in less controlled settings. It has been discovered that ratings from both instructors and students help to ensure the accuracy of assessments of the school atmosphere. In latent variable, multilevel, multitrait, and multimethod research, the variance in observed variable ratings that might be attributable to individual informant effects, school-level informant influences, and trait

impacts, for example, were disentangled from the observed variable ratings. This enabled the study of student and teacher ratings of school climate parameters. After controlling for these non-trait informant effects, studies revealed that school environment aspects in both middle schools (Konold & Cornell, 2015b) and high schools were substantially predicted by student and teacher ratings (Konold & Shukla, 2017).

Despite the fact that student and teacher perceptions are significant indicators of school functioning, researchers have been slow to consider both perspectives (Cohen, McCabe, Michelli & Pickeral, 2009; Gase et al., 2017). According to Wang and Degol's (2016) analysis of the field, only 17% of school environment studies included the perspectives of multiple informant categories, while 50% of studies only considered student reports. According to a separate assessment by Berkowitz et al. (2017), 77 percent of school climate studies focused only on the viewpoints of either students (64 percent) or teachers (13 percent), with only 6 percent incorporating reports from both students and teachers (p. 26).

The viewpoints of both students and teachers are included in this study. Although earlier research mostly relied on student accounts, using both teacher and student informants increases the assessment of school climate's thoroughness and veracity. Studies that included many perspectives often did so by doing separate analyses for each type of informant or by some method of observed score aggregation among informants to produce a single composite (Enticott, Boyne & Walker, 2009; Kearney & Peters, 2013; Vaughn & Hoza, 2013).

2.2.10 A School-Level Focus

Regardless of the fact that school climate is a concept that is designed to define the school as a whole, the majority of research on school climate focuses on student impacts. Ideally, studies should do multilevel analyses that account for both school and individual influences. According to one study, single-level statistical models were used in over 60% of published research on school climate and academic performance (Berkowitz et al., 2017). The most obvious and well-known repercussions of failing to account for the nested structure of informants within schools are independence assumption violations and the subsequent effects on estimated standard errors (Raudenbush & Bryk, 2002). Another difficulty is that most school climate measures were developed using individual-level studies, as if they were indicators of student characteristics rather than institutional elements. Individuals (such as students and teachers) may understand concepts such as "school atmosphere" differently from the school as a whole (Bliese, 2000).

Individual informants' observations of the school environment are likely to be influenced by factors at both the lower and higher levels (for example, classmates and school culture) (Reise, Ventura, Nuechterlein & Kim, 2005). Individuals with similar functions at a specific school, such as pupils or teachers, may have differing opinions about the quality of the school environment (Konold & Cornell, 2015b). These opposing opinions may be a product of their personalities or the peer groups with whom they are most closely associated (Wang & Degol, 2016). The varied opinions may be analysed for convergence between informants by looking at within-school informant commonalities in order to acquire a fuller appraisal of the school environment (Dedrick & Greenbaum, 2011; Konold & Cornell, 2015b).

2.2.11 Students Engagement

A number of definitions have been offered for the student engagement concept, which has recently been at the core of numerous academic disputes. Student engagement is defined as meaningful participation among all pupils. The truest way to explain it is the connection between the student and the school, instructors, classmates, teaching, and curriculum (Delfino, 2019). The phrase derives from a corpus of work that emphasises student participation. It is frequently used, particularly in North America and Australia, where it has become firmly embedded as a result of huge national polls conducted on a yearly basis (Trowler, 2010). Student engagement is defined as both meaningful student involvement throughout the learning process as well as the willingness of students to participate in routine academic activities like attending class, turning in required homework assignments, and performing well on continuous assessments (Jackson, 2011). Student Engagement is also defined by Taylor et al (2011), as students' expression of opinions and behaviours which are as a result of the various methods and techniques teachers employ in the teaching and learning situation. These methods and techniques are translated into learning activities that equip students and develop them through participation in the activities (Charles, Bustard & Black, 2009). This means that, if all other factors are equal, class discussions and other teaching strategies used by teachers will result in learning since student participation in school affects their ability to learn (Wonglorsaichon et al., 2014). Effective classroom learning activities result in effective learning, as Chen, 2005; Wang & Pomerantz, 2009 argue. This statement also implies that learning may not be as effective when teachers merely assign a large number of activities to pupils without taking the time to thoroughly examine the subject.

Student engagement has three components: behavioural, emotional, and cognitive (Coates, 2015). Behavioural engagement refers to a student's participation in both academic and extracurricular activities (Coates, 2017). The word "emotional involvement" refers to how children perceive themselves, their peers, their teachers, and their school (DeVito, 2016) while cognitive engagement addresses students' consideration and readiness to learn difficult skills (Fredericks et al., 2014).

According to Fredericks, Filsecker and Lawson (2016), Lawson & Masyn (2015), Wang & Eccles (2013), and others, student involvement has long been acknowledged as a crucial component of student learning and accomplishment. The National Research Council (2003) also listed student engagement as a key objective of national school improvement initiatives. According to Fredericks et al. (2016), engagement has behavioural, affective, and cognitive components. Students show behaviour-based engagement by going to class and participating in extracurricular activities, affective engagement by feeling a sense of pride and affection for their school, and cognitive engagement by actively learning. The combined measure of total involvement, however, is frequently found in studies of student engagement to be a more reliable predictor of student outcomes than any one component alone (Archambault et al., 2009). According to Fredericks et al. (2016), academic outcomes like course grades and achievement test scores are consistently correlated with high involvement. Disengaged children are more prone to engage in negative behaviours including substance abuse and delinquency during adolescence and eventually drop out of school (Wang & Fredricks, 2014).

One of the key concepts utilised to comprehend student behaviour toward the teaching-learning process is student involvement (Coates, 2017). Understanding student conduct

in academic settings will provide a picture of how university instructions and academic practises are carried out (Groves, Sellars, Smith & Barber, 2015). As a result, instructors and academic supervisors might utilise it as a strong instrument to develop efficient pedagogical strategies to optimise the learning opportunities for pupils. The benefit of the student engagement data is that it shows what the students are really doing (Groves, Sellars, Smith & Barber, 2015). The information is important for managing academic programmes, students, and institutions more broadly. Institutions may make judgments based on more objective facts rather than working on assumptions or incomplete anecdotal reports regarding student activity (Gunuc, 2014). Information on student activities would provide institutions useful data for marketing and recruiting and would make them more receptive to the educational demands of students (Groves, Sellars, Smith & Barber, 2015).

Institutions cannot get beyond taking student activities for granted unless they have accurate and trustworthy information on what students are really doing (Coates, 2015). The philosophy of student participation emphasised that the more involved a student is in college, the more they would learn and grow as individuals (Astin, 1984). In order for students to feel connected, affiliated, and like they belong to their peers, teachers, and institutions, they must interact in constructive ways that provide them with abundant possibilities for learning and growth (Mutch & Collins, 2012). The amount of time and effort students devote to educational activities is the single most important indication of their learning and professional development. When compared to other schools and universities where students are less engaged, those that vigorously include students in a wide range of activities that contribute to desired educational outcomes may argue that they are of higher calibre (Casuso-Holgado et al., 2013). Student involvement benefits both a school's financial health and academic performance.

Universities and colleges are increasingly emphasising the importance of outreach to former students and other potential relationships of the school in order to considerably enhance philanthropic support for higher education. According to Markwell (2007), it is becoming more well recognized that how involved students are and feel throughout their student years has a significant impact on how attached and supportive they feel towards the institution.

Education psychology's research of student involvement is crucial. Engagement requires experiencing and sense-making in addition to being active (Russell & Slater, 2011). Student involvement is defined as students' readiness, needs, wants, and motivation in the learning process (Urquijo & Extremera, 2017). Student involvement is defined as the amount of time students devote to educational activities in order to help achieve the intended results and as the quality of their associated efforts (Umbach & Wawrzynski, 2015). It takes into account both the amount of time pupils spend on assignments and their interest in participating in activities (Umbach & Wawrzynski, 2015). Student involvement was linked by Krause and Coates (2008) to high-quality learning outcomes. It may be stated that each of these definitions has elements in common with the others. The definition of student involvement in higher education must also take into account the processes of engagement on campus and in the classroom. According to Gunuc and Kuzu (2014), student engagement refers to "the quality and quantity of students' psychological, cognitive, emotional, and behavioural responses to the learning process as well as to in-class/out-of-class academic and social activities to achieve effective learning outcomes.

Students participate intellectually by doing their assignments, learning everything they can, and placing value on getting good grades. They also participate effectively by

appreciating their school, feeling pleased to be a student there, and feeling like they belong there. According to earlier studies, student engagement is not a factor in school atmosphere but rather a student feature that is a proximal effect. Due to this, initiatives to improve school climate have been linked to improved student participation (Fredricks et al., 2016). Other studies have emphasised student engagement as a crucial element in students' willingness to put in the necessary effort and succeed in school. By bringing various pieces of research together and examining whether involvement acts as a moderator between school climate and academic performance, this study makes a contribution to the field.

2.2.12 Dimensions of Student Engagement

Although definitions and coverage of engagement vary somewhat, researchers have come to the conclusion that the construct is multidimensional and includes a variety of elements (such as behavioural, cognitive, and emotional aspects) that work in concert to reflect students' optimistic learning attitudes (Carter et al., 2012; Phan, 2014; Schaufeli et al., 2002; Upadyaya & Salmela-Aro, 2013). On the types and number of engagement aspects, however, studies have consistently disagreed (Appleton et al., 2008; Fredricks et al., 2004; Li & Lerner, 2011; Schaufeli et al., 2002). In contrast to Willms (2003), who identified two components of the construct (i.e., behavioural and psychological), Schaufeli et al. (2002) conceptualized engagement as having three dimensions (i.e., vigour, dedication, and absorption). Usually, engagement is thought of as having two, three, or four dimensions. Adopting a two-dimensional model, researchers conceptualized the construct to include behavioural (such as engagement in academic and extracurricular activities) and psychological (such as identification with school, valuing learning outcomes, and belonging) subtypes (Appleton et al., 2008). A tripartite model that includes a cognitive factor (such as thinking and willingness to

master challenging tasks), as well as the psychological and behavioural categories, has been offered by Fredricks et al. (2004) and Jimerson et al. (2003). The three dimensions used by Schaufeli et al. (2002) were identical to those used by Appleton et al. (2008), Bakker, Vergel and Kuntze (2015), Tuominen-Soini & Salmela-Aro (2014), and Upadaya & Salmela-Aro (2013), although they were referred to as devotion, vigour, and absorption. Reeve and Tseng (2011) and Appleton et al. (2006) have both suggested a fourth dimension of involvement. Academic engagement is what Appleton et al. (2006) referred to as the fourth dimension. This covers things like finishing projects and spending enough time on a task. However, the majority of earlier studies (Appleton et al., 2008; Coleman, 2012; Fredricks & McColskey, 2012) have included this feature (i.e., academic) under behavioural engagement. Reeve and Tseng (2011), on the other hand, suggested the agentic dimension as a novel component of the engagement construct; nevertheless, much more study is necessary to substantiate this novel idea (Sinatra, Heddy & Lombardi, 2015). Fredricks et al. (2004) described engagement as a malleable, developing, and multidimensional construct that consists of three broad dimensions: behavioural, cognitive, and emotional. The dimensions, according to the authors, are not isolated but interrelate with each other.

Behavioural Engagement

An element of behavioural engagement, which is founded on the idea of participation, includes involvement in extracurricular, social, and academic activities. Behaviourally engaged students adhere to classroom expectations, respect authority figures, and refrain from disruptive conduct (Fredricks, 2014). According to Fredricks et al. (2004), three ways are commonly utilised in defining behavioural engagement, which Rumberger (2004) found to be a crucial factor in mediating the dropout process. The

first way involves positive conduct, such as adhering to the norms of the classroom, following the rules, and refraining from engaging in disruptive behaviours (e.g., being troublesome or skipping school) (Fredricks et al., 2004). The second way pertains to participation in learning and academic-related tasks, and involves behaviours such as discussion contribution, asking questions, paying attention, concentrating, exhibiting persistence, and putting forth effort (Fredricks et al., 2004; Finn et al., 1995; Skinner & Belmont, 1993). The third and last way, according to Finn (1993) and Finn et al. (1995), is the involvement in activities related to school that include, for example, school governance and sports (Fredricks et al., 2004). Therefore, behavioural engagement is a directly observable dimension of engagement, and the salient indicators of this dimension include truancy, preparation for school, attendance, participation in curricular and extracurricular tasks, and discipline referrals (Appleton et al., 2008; Fredricks et al., 2004; Reschly & Christenson, 2006).

Cognitive Engagement

The cognitive engagement dimension refers to students' investment in learning, and involves aspects such as willingness and thoughtfulness to expend the effort required to understand and master difficult tasks, the use of appropriate learning strategies (e.g., students' use of elaboration rather than memorisation), challenge preference, and self-regulation (Fredricks et al., 2004). Indicators of cognitive engagement include asking questions for clarification of ideas, persistence in difficult activities, flexibility in problem solving, use of learning strategies (e.g., relating new information to existing information), and use of self-regulation to support learning (Finn & Zimmer, 2012; Fredricks et al., 2004).

Emotional Engagement

Scholars have variously identified emotional engagement as motivational engagement (Linnenbrink & Pintrich, 2003), psychological engagement (Finn, 1993), and affective engagement (Archambault et al., 2009). However, all of these terms refer to the same features of emotional engagement, which describes students' positive and negative emotional reactions toward teachers, classmates, academic works, and school in general (Fredricks et al., 2004). It includes indicators such as the presence of interest and happiness and the lack of boredom, anxiety, and sadness. The degree of positive (and negative) responses to teachers, classmates, academics, or school is the emphasis of emotional engagement. According to Fredricks (2014), a student is said to be emotionally involved when, for instance, he or she identifies with the school or believes that the institution values him or her. According to Jennings & Greenberg (2009), children "have greater academic performance when teachers are aware and receptive towards their academic, social, and emotional requirements. However, a student's performance at school will suffer if they are experiencing emotional difficulties at home. Further, students exhibiting emotional engagement have a sense of identification with and belonging to the school, value school outcomes, and feel as though they are supported by their peers and teachers (Fredricks et al., 2004).

2.2.13 Concept of Academic Performance

In the field of education, academic performance is of utmost importance. Academic performance is defined as students' ability to carry out academic tasks, and it measures their achievement across different academic subjects using objective measures such as final course grades and grading point average (Busalim et al., 2019). The operational definition of academic performance given by Nne and Ekene (2021) is the "overall

measure of students' cognitive, emotional, social, and creative outcomes that represent an indication of success or failure in the academic context in any academic domain" (pg. 62). Additionally, it describes a learner's capacity for memorising information and communicating what they have learned orally or in writing (Yahaya, 2003) as well as the extent to which a student, teacher, or school has attained their educational goals (Osborne, 2004). Numerous factors, including socioeconomic position, parental education, student cognitive skills, school belonging or connectivity, and school atmosphere, have been linked to performance over a lengthy period of time (Hattie, 2013).

Although there are many elements that affect academic success, they are frequently divided into factors at the home and school level. For instance, Abdallah et al. (2014) found that factors at the home, school, and a combination of both have a significant impact on children's academic performance. Teachers and schools at the school level have a big impact on students' ability to learn. They can encourage active learning, develop thinking skills, create effective learning zones, encourage success, give effective feedback, identify and create learning windows, build strong relationships, develop learning pedagogy, increase motivation, and accept individual differences (Yahaya, 2003). The result of schooling is performance. It can be viewed as an indicator of how well a student, instructor, or institution has accomplished its educational objectives. Exams or continuous assessment are commonly used to evaluate academic progress, but there is no agreement on how to best test it or whether aspects are most important - procedural knowledge such as abilities or declarative information such as facts. The Academic Performance Index is used in California to assess school performance (VisuPetra, Cheie, Benga & Miclea, 2011). Students with higher conscientiousness (associated with effort and achievement motivation) and superior

mental capacity (quick learners) as indicated by IQ testing tend to flourish in academic situations.

Bell (2013) likewise came to the conclusion in his study that academic performance is frequently used by educational institutions to gauge students' success. Around the world, formative, summative, and paper-and-pencil tests—often created by students' own teachers or instructors or some external paper setters—are used to gauge academic performance. Grades, percentages, marks, and CGPA are all ways that academic performance outcomes are reported. In the end, the degree of students' conceptual, philosophical, theoretical, mathematical, and linguistic competence is evaluated and interpreted in accordance with the results (Lone and Lone, 2016). Assessment exercises used by lecturers to support student learning are used to gauge academic success. In general, midterm and final exams are used to evaluate students' performance at a certain point in time. A test or examination is a formal, structured process in which the performance of a sample of pupils is evaluated (Berry, 2008).

In Ghana, access to education is regarded as both a fundamental human right and a key component of the country's development plan for fostering progress and assuring readiness for a successful life. The ability of Ghana to increase educational access to the point where the populace is highly educated and can serve as the human resource foundation for rapid growth is crucial to the country's goal of becoming a fully developed nation (World Bank, 2004). Ghana's Ministry of Education (Ministry of Education, 2003) states that literacy, numeracy, and problem-solving abilities are frequently emphasised in primary education. In addition, those who have access to quality primary education set the groundwork for inquiry, creativity, and invention. In order for children to participate in national development and to develop the skills and

attitudes necessary for assimilation of new knowledge, it is also crucial to emphasise that children be taught the virtue of good citizenship via elementary education (Ministry of Education, 2003).

The basic education system in Ghana today lasts 12 years and typically serves students between the ages of 4 and 15. The curriculum, which is both free and required, is described as the minimal period of schooling needed to ensure that children acquire basic literacy, numeracy, and problem-solving skills, as well as skills for creativity and healthy living (Ghana Education Service [GES], 2018). Ghana has three levels of basic education: kindergarten, primary school, and junior high. The Junior High School (JHS) in Ghana has also been planned to provide pupils with basic pre-technical, pre-vocational, and scientific knowledge. The senior secondary education (which is the level of education that comes after JHS education) is intended to reinforce the knowledge and skills acquired during basic education as well as provide opportunities to help students develop a variety of talents and skills (Ministry of Education, 2016). In Ghana, there are different types of assessments at different grade levels.

The various grade levels do not have an external assessment mechanism that evaluates students' performance and success termly or yearly, other than classroom assessment, generally known as the School Based Assessment (SBA). However, there are national exams given for all students at each end of their academic careers. The Basic Education Certificate Examination (BECE) is given at the end of JHS 3 (Grade 9), and the West African Senior School Certificate Examination (WASSCE) is given at the end of SHS 3 (Grade 12) (The World Bank, 2013). In Ghana, students who have completed their basic education are required to take the Basic Education Certificate Examination (BECE) (Quainoo, Quansah, Adams and Opoku, 2020). After completing the nine-year

basic education curriculum, students who successfully pass the BECE are given the basic education certificate. Exam performance (70%) and school-based (internal) assessment marks (supplied by the schools) (30%) are used to evaluate candidates. The candidates are graded on a nine-point scale (stanine in reverse form), with Grade 1 representing the highest performance and Grade 9 the worst. Academic results in education in Ghana, more specifically at the basic level, have been on the decline. More than 3,669,138 candidates for the BECE took the test between 2006 and 2016, and of those, 1,562,270 (43%) were unable to advance to any secondary, technical, or vocational school (i.e., those who had aggregates of 30 or higher) (Ghana Education Service, 2016). In addition, 36,849 applicants (8%) from all around the nation were not admitted to senior high school (SHS) in 2017 because they received Grade 9 scores in either English or mathematics, or both (Ansah, 2017). The MoE and Ghana Education Service (GES) implemented a resit policy for those who failed the BECE as a result of the failure.

A recent meta-analysis discovered that, in addition to IQ and conscientiousness, mental curiosity (as measured by normal intellectual engagement) has a considerable impact on scholastic success. An educational success is something you accomplish or acquire in a school, college, or university class, laboratory, library, or fieldwork. Sport and music are not included. Academic accomplishment can be merely quantitative, such as graduating first in one's class, or it can be qualitative, such as having the results of extensive, detailed study published in a reputable publication. Being designated the head/chairman of a university department is both a professional and an academic accomplishment (Wright, 1991). Academic performance works within a dynamic process through which students' multidimensional development is possible. The core

purpose of measuring students' performance is to explore their extent of proficiency and command in any educational or academic area (Lone and Lone, 2016).

2.2.14 School Climate and Academic Performance

In educational contexts, scholars and practitioners have investigated the prevailing climate due to the conviction that the success of the educational institution depends on its ability to develop positive school climate. For instance, a study by Fakunle and Ale (2018) found controlled climate to prevail predominantly over open and closed climates in public senior secondary schools in Ekiti State, Nigeria. Likewise, Coda, DaSilva and Custodio (2015) discovered in their study which sought to determine the prevailing climate types in public and private owned secondary schools in Delta North Senatorial Zone of Delta State of Nigeria, that autonomous, controlled, open and paternal school climate were prevalent in the schools. Contrarily, Adebayo (2002) and Adeyemi's (2010), studies unveiled open climate as the most predominant climate in schools.

Indeed, scholars have adduced evidence to support the necessity to promote a healthy school climate. For instance, Ebrahim and Mohamadkhani (2014) opined that teachers need a conducive organisation climate to encourage them to perform their tasks effectively to attain good student performance. Similarly, Shahid (2012) observed that apposite climate in organisations lead to more cohesive work groups, more satisfied and committed employees, greater productivity, increased positive feelings about the organisation, better job performance, prevention of employee turnover, and reduction in job stressor that has the potential to affect the health of the employees. Besides, in educational institutions, a number of studies have revealed that school climate is associated with students' academic performance and motivation (Berkowitz, Moore,

Astor & Benbenishty, 2017) and to instructional performances of teachers (Jia, Konold, Cornell & Huang, 2016).

Additionally, it has been discovered to sway students' social-emotional adjustment and mental health, such as their self-esteem (Cornell & Huang, 2018). The findings from these studies sustain the truism that school climate is a crucial antecedent to organisational effectiveness. Logically, organisational actors in schools need to make conscious efforts to create and sustain conducive climate so as to promote effective teaching and learning, and reap other benefits therein. From the preceding discussion, it could be seen that the formation and development of school climate has been a subject of inquiry and the preoccupation of researchers in recent decades. As a result, school climate experts have propounded their theories and inventories through empirical studies to better understand the construct.

2.3 Conceptual Framework

The research objectives and the theoretical perspectives proposed a conceptual framework in this study as displayed in Figure 1.

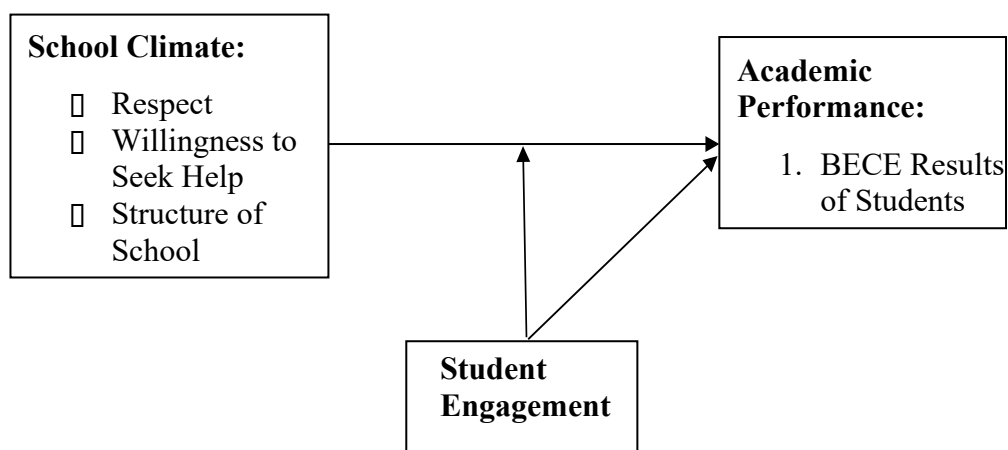


Figure 1: Conceptual framework

Source: Adapted from the Authoritarian School Climate Model used by Konold, Cornell, Jia, & Malone, (2018)

The Social Identity Theory states that when group members perceive psychological value in the group, they will become more motivated to attain the group's goals and will work harder to ensure that they are met (Haslam, Powell & Turner, 2000). The concept of school climate in the context of education embodies the norms, attitudes, and beliefs of the "school" group. A major objective of the school as a whole is to place a high focus on academics, foster positive staff-student relationships, and establish a common set of principles and methods that all contribute to the effective learning of students (Reynolds, Lee, Turner, Bromhead & Subasic, 2017). As a result, pupils' school membership may have an impact on their academic performance. An encouraging and welcoming school climate helps students identify with the school as a significant group to them, in which they find meaning and the belonging they seek. As a result, students are more likely to inadvertently internalise the school's beliefs and norms, emphasising learning and academic performance (Muijs & Reynolds, 2017).

According to ecological theory, for any thorough investigation of how the school environment may affect a child's academic performance, it is essential to include both instructors' and students' perspectives on it. Additionally, for children in their early years, evaluation practices, social structures, and social interactions may have both immediate and long-term implications. This layer of the theory states that if junior high school instructors strive toward a clear objective and have a better grasp of their purpose, these practices will have a significant impact on students' academic performance.

2.4 Empirical Review

This section of the review focused on a review of empirical literature conducted on the theme under investigation. The study based on the key gaps in research proposed appropriate methodology to be employed.

2.4.1 Influence of School Climate on Academic Performance

In order to ascertain if there was a link between school environment and student success in middle schools in the Central Savannah River Area Regional Educational Service Agency area of the state of Georgia, Greenway (2017) conducted a study. The results of this quantitative analysis showed that, among middle schools in this area, there is a statistically significant, inverse association between school atmosphere and student success. However, Greenway's research (2017) only employed a single factor to quantify school climate, which is inadequate.

Makewa, Role, Role and Yegoh (2011) tried to determine the types of school climates present in all provincial secondary schools in Nandi-Central Municipality, Kenya, as well as the discrepancies in school climates between high and low performing provincial secondary schools. To identify the number of differences and their effects, the mean evaluations on school environment of 103 teachers from four top schools and four low-performing schools were evaluated and assessed using a causal comparative study technique. Highly productive schools have a better environment, milieu, and academic culture than low performing schools. It was revealed that the school atmosphere had a substantial impact on students' educational performance at provincial secondary schools in the Nandi-central area.

The goal of Nichols, Glenn, Vernimb and Church's (2019) study was to determine the connection between high school academic success and school atmosphere. Multiple regression analysis was utilised in this quantitative research of Virginia high schools (N = 314) to determine the link between school climate and academic success. Academic performance metrics were also derived from the English/reading and mathematics Virginia Standards of Learning (SOL) outcomes for Virginia high schools,

which were available on the VDOE SQP website. The findings of this research showed that the key variables with the greatest influence on learning were school size, the number of low SES students, attendance, discipline, and provisionally licensed instructors. Educational leaders will have a mechanism to look at the impact of school environment issues on their students' academic performance at the high school level in an age of ongoing accountability.

Asamoah, Sundeme, Quainoo and Afranie (2020) investigated the reasons why senior high school students in Ghana's Kumasi Metropolis performed poorly academically in core mathematics. The research combined a quantitative method with a descriptive survey design. In order to choose a sample of 431 respondents, multiple-stage sampling approaches were utilised (381 students and 50 core mathematics teachers). Data for the study were acquired through questionnaires distributed to students and instructors. Means and standard deviations were used to analyse the collected data. The study's findings revealed that factors related to the school community, teachers, and students — such as insufficient teaching and learning materials, tardiness and absenteeism, teachers' inability to complete lesson plans, students' dissatisfaction with fundamental mathematics classes, and students' negative attitudes toward core mathematics — were to blame for poor core mathematics performance.

Kalkan and Dagli (2021) explored the relationships between school climate, school belonging, and school disengagement in secondary students. A stratified selection of 667 middle school students from Hatay's Dörtyol neighbourhood was used. Descriptive statistics, regression analysis, path analysis, and the Sobel test were used to evaluate the data. The study's findings show that secondary school students have positive attitudes on their school's culture and sense of belonging, but they also have medium

burnout levels. The study's findings also demonstrate significant links between school climate, school belonging, and school burnout. School climate and a sense of belonging are important factors of school burnout. The association between school atmosphere and school burnout is mediated by school belonging. Secondary school students' school burnout is significantly influenced by school atmosphere, which has an impact both directly and indirectly via school belonging.

Konold et al. (2018) propose that schools that have high levels of structure and student aid have higher levels of student involvement and they are also more likely to score well on state-mandated examinations, which are markers of higher academic accomplishment. The model was evaluated using a multilevel, multi-informant structural model on a sample of 60,441 students and 11,442 teachers from 298 high schools across the state. Structure and student support were associated with higher levels of student participation in schools, which is congruent with the concept of the authoritative school environment. Furthermore, student involvement served as an intermediate and was directly related to academic success.

The fact that this research was done in the United States, although being insightful, raises questions about how well the results apply to the situation in Ghana. As a result, the ASC model will be put to the test in this research to either support or refute the findings of the study by Konold et al. As a result, the key research topics in school climate have been to study the relationship between school climate and academic performance, what specific aspects of the school setting are associated to school performance, and what mechanism supports this relationship. For example, Wang and Degol (2016) proposed that future studies should consider school climate as a multidimensional concept and determine whether specific characteristics of school

environment are related to student academic results in order to indicate future research directions. The authors criticised previous research for creating a unidimensional model of school climate using a single scale and a single informant. These authors advocated for the use of multilevel modelling techniques to assist these more complex concepts of school environment. This research concentrated on the ASC model, a multidimensional model for evaluating school climate and its ensuing consequences on academic performance, based on these philosophical and methodological viewpoints.

2.4.2 Influence of School Engagement on Academic Performance

At Partido State University, Delfino (2019) assessed the level of student involvement and examined the variables influencing it. It also investigated the link between academic accomplishment and student engagement. The descriptive correlational technique was used in the study. The data from the questionnaires were validated through focused group discussion. Mean and ranking, Pearson moment correlation, and multiple regression were used to process the data. According to the study, overall student involvement was high, with a mean score of 2.84 across behavioural, sentimental, and intellectual engagements. It was discovered that the respondents' academic performance was excellent (GWA=1.83). The results of the Multiple Linear Regression analysis showed that the variance was very low (1.8%) but that the components were strong indicators of student engagement ($F(3, 301) = 2.905$).

According to the correlational study, teacher ($r = .125, p = .029$), school ($r = .143, p = .013$), and family ($r = .106, p = .028$) characteristics were positively connected to student engagement. Additionally, it was shown that students' academic success was favourably connected with their behavioural, emotional, and cognitive involvement.

Gunuc (2014) sought to ascertain how much student participation predicts or explains academic success. The correlational method was used to conduct the investigation. 304 students made up the sample for the study. The Demographic Variables Form and Student Engagement Scale were utilised as data gathering techniques. The data was analysed using descriptive statistics, correlation analysis, two-step cluster analysis, independent samples t-test, and regression analysis. According to the study's findings, there are high correlations between students' academic performance and engagement, as well as between academic success and specific traits such as cognitive engagement, behavioural engagement, and a sense of belonging. Additionally, it was discovered that involvement in class — a combination of cognitive, behavioural, and emotional factors — predicted academic success and contributed 10% to its explanation.

In the context of Ghana's higher education, Essiam (2020) looked into the variables that impacted student involvement and described how those variables in turn affected students' academic performance. The results demonstrated that substantial correlations existed between student learning experience ($\beta = .185, p < .05$), student experience with faculty ($\beta = -.133, p < .05$), academic challenge ($\beta = .107, p < .05$), lecturer feedback ($\beta = .129, p < .05$) and learning with peers significantly predicting student engagement. On the other hand, campus climate ($\beta = -.057, p = \text{ns}$) did not influence student engagement. The GPA of the students was strongly impacted by their level of participation ($\beta = .298, t(448) = 6.573, p < .05$). Students engaged in learning activities that tested their ability to learn and satisfy professor expectations (academic difficulty, mean = 3.861, SD = .665). Students evaluated the least important facet of the student engagement category as their interactions with professors (Mean = 3.293, SD = .670). Academic performance was considerably and favourably affected by student participation. Although, majority of the students (Mean = 2.605, SD = .884) did not participate in

entrepreneurial activities, the findings showed that these students were less likely to do well academically ($r = -.182, p.05$).

Sbrocco (2019) explored the connection between eighth grade students' academic success and academic engagement in three suburban middle schools. Given the quantitative techniques used to examine the reported levels of academic engagement of eighth-grade pupils, the research adopts a post-positivist worldview. The data on engagement was then examined in relation to student academic performance. The research concluded by demonstrating that pupils who were more engaged had superior academic accomplishment. Additionally, involvement has the power to lessen the impact of race on academic performance.

Abbing (2013) explored the impact of students' participation on their academic performance throughout the duration of their academic careers. This was accomplished by assessing how each engagement factor affected the academic performance of 1,281 students from the Dutch province of Twente. Using a moderated regression technique, differences in these impacts for students at various phases of their careers were assessed. Every element of the engagement model studied had an impact on student accomplishment, although the kind of impact varied based on the stage of the children's academic careers and whether impacts on language or maths performance were assessed. The findings suggest that taking into account the many aspects of engagement within the context of the students' stage in their academic careers is necessary in order to comprehend the link between student involvement and accomplishment.

Lee (2018) investigated the school academic performance and student engagement of supplementary instruction (SI) students enrolled in a gateway mathematics course at the same time. The purpose of this quantitative correlational survey study was to learn

more about the engagement techniques employed by SI students enrolled in gateway mathematics courses. A study was also done to investigate the relationships between the SI students' engagement techniques and their marks in those courses. Performance engagement, participation/interaction engagement, emotional engagement, and skills engagement were the four engagement factor scales used to score the responses. The results of this research supported two theoretical predictions: (a) a positive relationship existed between each of the four engagement factors and the participants' grades in gateway mathematics courses; and (b) a positive relationship existed between the respondents' grades in gateway mathematics courses and the linear combination of the four engagement components. This study's findings supported three conclusions: (a) student learning depends on academic support and resources; (b) academic support and resources are critical for student academic performance; and (c) school achievement, especially good academic course results, is a significant predictor of persistence toward college completion. The more interested students are in their studies, the more likely they are to obtain higher grades in a gateway mathematics course.

2.5 Summary of Review

Based on the foregoing, it is evident that, there has been a plethora of studies examining the influence of school climate on academic performance, as well as that of student engagement in the nexus. However, there is an absence of studies that deals with the specific dimensions of school climate and their role in academic performance, especially in the Ghanaian context and within a high performing Municipality such as the Ga West Municipality. As such, this study bases on the methodological and absence of theoretical models defining the relationship between school climate and academic performance and proposes to establish a model that speaks to the dimensions of school

climate and its effects on academic performance making a case for the moderating role of student engagement within the nexus.



CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the methods used to establish the link between school climate and academic performance and the moderating role of students' engagement in the relationship between these two variables in selected Junior High Schools in the Ga West Municipal Assembly. The chapter specifically contains the research strategy, research design, sampling technique, sample size, data collection, data analysis and model specification.

3.1 Research Paradigm

Research paradigm is a basic and comprehensive belief system to view the research phenomena. It is the researcher's worldview perspective, or thinking, or school of thought, or set of shared beliefs that inform about the meaning or interpretation of research data (Khatri, 2020). Research paradigms can be categorised into positivism, interpretivism, post-positivism, critical theory (ideology), constructivism and/or pragmatism.

The positivist paradigm was adopted for the study. Positivism believes that there is only one and single reality, and that 'scientific' method is the only way to establish truth and objective reality. The essence is to seek explanation, prediction and control. It is also used to reveal relevant factors, describe and measure the factors, explain the relationship between the factors, and put their understanding to use in the organisations. Thus, positivism is construed as a way of measuring reality from an objective point of view. Selvan (2017) states that, positivists hold a view that reality is a single unitary

world that can be accessed through scientific methods. Scientific methods such as experiments only give objective answers that are not prone to multiple interpretations. Positivism is therefore closely linked to objectivism which argues that reality exists, is external to the researcher and must be investigated through a rigorous process of scientific inquiry. Such rigorous process of scientific inquiry requires a repertoire of skills and sophisticated machinery to interpret data in order to have a reality. Because the researcher wants to give analysis that accurately reflects the facts of the respondents who were considered within the study, the positivist paradigm was depended on in this study.

3.2 Research Approach

Common research approaches in academia are the quantitative, qualitative, and mixed methods. Exploration is a key component of the comprehensive learning strategy known as qualitative research. Another approach to explain qualitative research is an unfolding scenario that takes place in a natural environment and allows the researcher to gain depth by actively participating in the actual events (Creswell, 1994). The quantitative and qualitative research approaches will still be useful and important; therefore, the mixed way of analysis is a complement to them rather than a replacement (Johnson & Onwuegbuzie, 2004). Researchers that employ a mixed-methods approach to their research seek to maximise the benefits of quantitative and qualitative research procedures while minimising their drawbacks.

The study's quantitative methodology involved a systemic empirical inquiry into the potential link between school climate and academic performance as well as the moderating role of student participation in this relationship in a sample of junior high schools in the Ga West Municipal Assembly. The quantitative design is a typical

tentative method used by all scientific disciplines. The experiment conducted by quantitative research is usually referred to as actual science, and this makes use of the conventional arithmetic and statistical methods in measuring outcomes accurately (Geletta, 2012). The quantitative research approach is being chosen because it helps make positive claims with regards to the potential link existing between school climate and academic performance and the moderating role of students' engagement in the relationship between these two variables in selected Junior High Schools in the Ga West Municipal Assembly. The quantitative research approach helped to collect data in real-time for the statistical analysis. This approach used a randomized process to collect information which excluded bias from appearing. The use of the quantitative approach did not consider the motives that participants had in their responses.

Additionally, since the quantitative research aligns well with the positivist research paradigm, the investigation herein was devoid of personal biases which makes that the most advantageous of the quantitative research approach. The limitation of the quantitative approach is that, it does not speak to the experiences of the participants as it relies on numeracy in its analysis. As such, the researcher employed the use of standardised questionnaires, which has proven content and face validity as well as high reliability in its analysis to minimise this disadvantage.

3.3 Research Design

Considering the research problem, the purpose and the research objectives formulated as spelt out in Chapter One, the researcher adopted the cross-sectional study design. This is because the phenomenon under consideration is observed over selected JHS at a given point in time. A cross-sectional study is a type of research design in which one collects data from many different individuals at a single point in time. In cross-sectional

research, the variables are observed without influencing them (Thomas, 2023). Within the framework of a cross-sectional design, it is possible to demonstrate the strength and consistency of correlational relationships across samples, to control for other potentially confounding variables, and to show similarity of findings across measures and informants. However, a cross-sectional design cannot establish causal effects.

3.4 Target Population

Target population is the total number of individuals and/or items relevant to a study; it is out of this population the sample respondents are chosen from. A population of a study is the total relevant number of items within the contextual and geographical scope of a research (Marzcyk, DeMatteo & Festinger, 2005). Thus, a population is a collection of variables about which a study seeks to make inference. The population of this research consists of all the students and teachers in the various Junior High Schools in the Ga West Municipal Assembly. There are nine circuits: Amasaman, Sarpeiman, Ayikai Doblo, Medie, Manhean, Kwashiekuma, Mayera, Odumase, and Amanfrom, in the Municipality. The Municipality has 78 public Basic Schools and 188 private schools (School Census, 2020). This includes all the 41,218 pupils and 237 teachers from all the public basic schools in the Municipality as given by the Ga West Municipal Directorate of the Ghana Education Service. However, the study considered only students who had recently sat for the Basic Education Certificate Exams within the Municipality. Five schools were considered for the study including Amasaman M/A Basic School 1, Kojo Ashong Methodist Basic School, Nsakina M/A Basic School, Holy Innocent Anglican Basic and Achiaman M/A Basic School. The selection of these schools was strictly based on familiarity as the researcher has once done an internship in one of these schools.

The study considered Form Three students who had recently sat for the BECE since these students had been in the schools for long hence, had concrete academic records to use in measuring their academic performance. Table 1 below indicates the total estimated population of each school considered in the study.

Table 1: Population of the Study by School

Schools	Teacher Population	JHS 3 Population	Student population
Amasaman M/A Basic School 1	25	117	382
Achiaman M/A Basic School	19	71	242
Holy Innocent Anglican Basic	23	89	214
Nsakina M/A Basic School	21	56	184
Kojo Ashong Methodist Basic School	17	28	127
Total	105	361	1149

Source: Data from Head teachers

3.5 Sampling and Sample Size

It is unfeasible to collect data on the entire population, bearing in mind the size, as well as the time available to the researcher, therefore the necessity to hand-pick a sample that will denote the whole population. The two divisions of sampling techniques are probability and non-probability sampling approaches. When employing probability sampling procedures, every member of the population has an equal chance of being chosen; however, this is not true when using non-probability sampling techniques. A sample is a smaller subset of a statistical population whose features are studied to get more insight into the population as a whole (Merriam-Webster, n.d.). Participants in the study were chosen using simple random sampling and presented questionnaires without replacement. For students, the study purposively selected the BECE results of

Thus, 83 teachers as well as 83 student results were considered for the study, sample for respondents selected from each school was done using relative frequencies as displayed in Table 2

Table 2: Sample Size per school considered

Schools	Teacher population	Relative ref.	Sample size Rf*83
Amasaman M/A Basic School 1	25	0.2381	20
Achiaman M/A Basic School	19	0.1810	15
Holy Innocent Anglican Basic	23	0.2190	18
Nsakina M/A Basic School	21	0.2000	17
Kojo Ashong Methodist Basic School	17	0.1619	13
Total	105	1	83

Source: Researcher's own construct

3.6 Data Collection Instruments

Data were obtained for the study by the use of a structured questionnaire about students' academic performance in all subjects offered at the basic school level. Utilizing questionnaires is a very practical technique to gather relevant comparative data from a big number of people. One of the most popular research tools in the behavioural sciences is the questionnaire, which entails creating a list of questions on many topics or particular features of a topic and asking a sample of the population to respond (Marthers, Fox & Hunn, 2009).

The questionnaire for both teachers and students were in two sections, labelled according to the research objectives. Section A focused on the socio-demographic characteristics of respondents. These socio-demographic characteristics included Gender, Age bracket, Qualification (teachers only), and years of experience in teaching

(teachers only). Section B of the questionnaire consisted of 19 items. It focused on collecting data on student Engagement and school climate measured using a 5-point Likert scale indicating whether they strongly disagreed (1), disagreed (2), neutral (3), agreed (4), or strongly agreed (5) with the statements, using the adapted authoritative school climate (ASC) model, as used by Konold et al., (2018).

This scale encompassed items soliciting for data on Engagement (5 items), Structure (6 items), Respect (4 items) and Willingness to seek Help (4 items). The items were seemingly similar but adapted to accommodate students' and teachers' perspective for comprehensive multidimensional measurement of students' engagement and school climate. Academic performance was calculated based on total score marks for the Basic Education Certificate Exams.

The use of the questionnaire helped to gather a lot of data in less time and helped to ensure uniformity, in that all respondents were asked the same questions. The researcher overcame random answer choices by respondents by explaining the nature of test items and offered to explain questions to respondents who did not understand the items. The questionnaire used basic and simple English for easy comprehension and understanding. The research also gave out and collected all questionnaires personally to avoid low response rates.

3.7 Data Collection Procedures

According to Creswell (2002), it is crucial for research to respect the location where it is conducted and obtain permission before entering. Therefore, the researcher obtained an introductory letter from the Department of Educational Administration and Management (DEAM), University of Education, Winneba to give him official recognition to my respondents. Once more, the researcher requested admission to the schools from the Municipal education office. After receiving consent, the researcher

informed the participants of the study's goals and provided them with justifications for their full cooperation and involvement. The data collection started on 27th September, 2021 and ended on 7th October, 2021. The field worked lasted for 2 weeks.

Nwana (1996) outlined the requirement that prior arrangements be made with respondents in order to ensure accuracy of the information provided. The researcher, depending on arrangements made with the schools later administered the instruments. To enhance a high return rate, the researcher personally administered the instruments. After an initial encounter, questionnaires were handed and an explanation of how respondents will reply to the particular items was given. As a result, the survey was self-administered, and respondents were given ample time to complete it.

3.8 Reliability and Validity

Primary data collected during the study was tested for consistency and reliability. Reliability of the questionnaire items were tested in a pilot study at the Sacred Heart '1' Anglican Basic, a school within the municipality, which was applied to 15 students and 10 teachers who were not involved in the actual study.

The questionnaires also required the respondents to complete them and provide feedback on the questionnaire's instructions and each question's relevancy. Through the use of pilot testing, the researcher was able to pinpoint problems with the instruments, including grammatical flaws, ambiguity, unclear instructions, clustered questions, and spelling mistakes. The researcher fixed the mistakes, therefore confirming the instruments' content validity. The researcher performed a reliability analysis using Cronbach alpha. Cronbach's alpha is a way of assessing reliability by comparing the amount of shared variance, or covariance, among the items making up an instrument to the amount of overall variance (Vaske, Beaman & Sponarski, 2017). The idea is that if

the instrument is reliable, there should be a great deal of covariance among the items relative to the variance. As a general rule of thumb, a Cronbach Alpha coefficient of 0.7 is good, 0.8 is better and 0.9 is best. The results of the reliability test are displayed in Table 3.

Table 1: Cronbach Alpha Test

Reliability Statistics	
Cronbach's Alpha ^a	N of Items
.830	19

3.9 Study Variables

Independent Variables

The independent variables in this study are School Climate (SCLi) and Student Engagement (SEng)

School Climate – This is defined as the quality of the school environment encompassing Structure of school, Respect and Willingness to seek Help.

Student Engagement – defined as the level of quality of engagement of students from both the perspective of teachers and the students in terms of classroom activities to social relationships existing between students and teachers

Dependent Variable

The main dependent variable in this study is student academic performance measured by the aggregate results of students in all subjects during the last Basic Education Certificate Examination.

Control Variables

In this study, key sociodemographic and job specific variables were used as controls in the model. These includes;

Age – How old teachers are, as measured on interval scale

Gender – the sex of teachers measured on nominal scale (1= Male; 2= Female)

Experience – Number of years teachers have been teaching

3.10 Data Analysis

The data were examined, characterised, organised and coded to address the research objectives and the research questions. The statistical package for social sciences (SPSS) was used to process data which were presented in Tables and frequencies in the data analysis section. In relation to the first objective, the study conducted the analysis using sample means, standard deviations and frequencies. This study analysed all Likert Scale questions using mean and standard deviations and interpreted the responses as shown in Table 4.

Table 4: Interpretation of Likert Scale Responses

Responses	Scoring	Weighted average range	Implication
Strongly Disagree	1	1.0-1.49	Respondents' disagreement to a statement
Disagree	2	1.50-2.49	Respondents' indifference to a statement
Neutral	3	2.50-3.49	Respondents' indifference to a statement
Agree	4	3.50-4.49	Respondents' agreement to a statement
Strongly Agree	5	4.50-5.50	Respondents' agreement to a statement

Source: Researcher's own construct adapted from on Konold, Cornell, Jia, & Malone, (2018)

In relation to objectives two, three and four, the study employed multiple regression analysis to analyse the influence of school climate and student engagement on academic performance of these students with an acceptable significance level of 5% ($p < 0.05$). Regression analysis is a reliable method of identifying which variables have impact on a topic of interest. The process of performing a regression allows the researcher to confidently determine which factors matter most, which factors can be ignored, and how these factors influence each other (Gallo, 2015). Typically, a regression analysis is done for one of two purposes: In order to predict the value of the dependent variable for individuals for whom some information concerning the explanatory variables is available, or in order to estimate the effect of some explanatory variable on the dependent variable. Regression was carried out to consider whether school climate and student engagement predict student academic performance.

The models are presented below.

$$ACA_i = \beta_0 + \beta_1 SCLI_i + \beta_2 AGE_i + \beta_3 Exp_i + \beta_4 Sex_i + \mu_i \dots\dots\dots \text{Eqn 1 (objective 2)}$$

$$ACA_i = \beta_0 + \beta_1 SEng_i + \beta_2 AGE_i + \beta_3 Exp_i + \beta_4 Sex_i + \mu_i \dots\dots\dots \text{Eqn 2 (objective 3)}$$

$$ACA_i = \beta_0 + \beta_1 SCLI_i + \beta_2 SEng_i * SCLI_i + \beta_3 AGE_i + \beta_4 Exp_i + \beta_5 Sex_i + \mu_i \dots\dots \text{Eqn 3 (objective 4)}$$

Where; ACA is Academic Performance of students; SCLI is School climate; SEng is Students' Engagement; SEng*SCLI is school climate moderated by Students' Engagement; AGE is how old teachers are; Sex is the sex of teachers; Exp; Number of years teachers have been teaching.

3.11 Ethical Considerations

Considerations of ethical nature were made. As a result, the researcher took the following factors into account to guarantee that all study participants' human rights were respected.

Research Permit

A letter from the Deputy Director (Statistics and planning) of the Ga West Municipal Assembly, who provided an introduction letter for data collection, was required to receive permission to carry out this study. The researcher was able to visit the selected schools in the Municipality, thanks to the letter.

Informed Consent

After explaining the purpose of the study and assuring participants that any information they supplied would be treated confidentially and used solely for that purpose, the researcher asked for their permission to collect information and data from them. This made it easier for participants to comprehend the study's purpose and exercise their right to participate or not.

Privacy and Confidentiality

This is the condition of not being bothered by or subject to public scrutiny. The sensitivity of the information provided and the usage of the names of the individuals giving the information were both taken into consideration. The term "sensitive information" describes how private or potentially dangerous the information is. All data were properly stored to ensure participant privacy, keeping them safe from unauthorised individuals. Additionally, numbers rather than names were used to register the data. Individuals must be identified in order for their identities to be kept

private, according to the right to secrecy. According to Cohen et al. (2007), when a participant or subject cannot be identified by the researcher or individual using the information provided, the participant or subject is termed anonymous. Therefore, the researcher made sure that no identifying markings, such as names or personal information, were present on the research instruments that were developed or in the findings or reporting. Numbers from 01 through 05 were used in place of school names.

Voluntary participation

To avoid any form of force or pressure, all research participants must voluntarily engage. The study's participants were made aware that taking part was completely voluntary and that they might discontinue at any time without having to give a reason or feel obligated to do so. Participants were told that declining to take part would not have any negative consequences.

Anonymity

The term "anonymity" refers to the inability to identify participants or link specific information about them to their data. The researcher was able to keep their anonymity by not collecting any personally identifying information, such as names, phone numbers, email addresses, physical characteristics, images, or videos.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Introduction

The purpose of this study was to examine if there exists a relationship between school climate and academic performance. This study investigated the moderating role of students' engagement in the relationship between these two variables in selected Junior High Schools in the Ga West Municipal Assembly in Accra. This chapter presents the analysis towards achieving the research objectives of this study. In the selected Junior High schools in the Ga West Municipal Assembly, the study specifically aimed to assess the quality of the school climate, examine the influence of school climate on academic performance, assess the influence of student engagement as an element of school climate on academic performance, and assess the moderating role of student engagement in the relationship between school climate and academic performance of students. The study focused on students and teachers of five Junior high schools including Amasaman M/A Basic School 1, Kojo Ashong Methodist Basic School, Nsakina M/A Basic School, Holy Innocent Anglican Basic and Achiaman M/A Basic School.

4.1 Socio-demographic Characteristics of Participants

Data on the demographics of the students and teachers in the chosen schools were gathered as part of the survey for the study. Age, sex (both teachers and students), level of education, and experience (teachers only) are significant demographic factors. The age of the participants was grouped into three with a 4-year interval. This was done to enhance the identification of respondents who fall within a select age group. The

sociodemographic characteristics of respondents considered in the survey is summarised in Table 5a and Table 5b.

Table 5a: Demographic Factors of Teachers

Variables	Items	Frequency	Valid Percentage
Sex	Male	67	80.7
	Female	16	19.3
Age	Less than 30 years	10	12.0
	30 – 39 years	27	32.5
	40 – 49 years	39	47.0
	50 and above	7	8.4
Educational Level	Graduate Diploma	36	43.4
	First Degree	43	51.8
	Masters	4	4.8
Teaching Experience	Less than 5 years	31	37.3
	5 – 9 years	50	60.2
	At least 10 years	2	2.4

Table 5b: Demographic Factors of Students

Variables	Items	Frequency	Valid Percentage
Sex	Male	42	50.6
	Female	41	49.4
Age	Less than 13	9	10.8
	13 – 16 years	41	49.4
	At least 17 years	33	39.8

Source: Field Data (2022)

Table 5a reports that, 67 (80.7%) of the teachers considered in this study were males whereas 16 (19.3%) were females. This implies that female teachers in the Ga West Municipality were in the minority as shown by the higher number of male teachers

compared to female teachers according to the statistics. For the students, Table 4b reports that, 42 (50.6%) were males whereas 41 (49.4%) were females. This points to the inherent dominance of boys, comparative to girls in the various junior high schools in the Ga West Municipality. This phenomenon portrays the fundamental inadequate opportunities for female students to access formal education in Ghana as posited by Tenkorang (2018).

Culture also has been found by several researchers including Ackerman and Maslin-Ostrowski (2002) to be the basic reason underlying this phenomenon. These may have implications for the future of the Municipality although one may assert that, females in schools in the Municipality are not so much in the minority with a relatively significant number being enrolled in school. These statistics again confirms the findings of Bardley (2000) who posited that, despite the fact that there are more females than males in Ghana, fewer girls enrol in school, more girls than boys drop out of school, and they achieve at much lower rates than boys.

In terms of Age, 10 (12%) of the teachers were less than 30 years of age, 27 (32.5%) were between the ages of 30 and 39 years, 39 (47%) were between the ages of 40 and 49 years whereas 7 (8.4%) were at least 50 years of age. Inferring from these statistics, it can be concluded that, these teachers in the Municipality are mostly young teachers, which has its own advantages towards teaching and learning in the schools. A youthful teaching staff has a relative energetic advantage over an older teaching staff. This, the author ascribed to the relative lower responsibilities on the part of young subordinates as compared to their older cohorts. A phenomenon which has been found to cause these young teachers to work relatively harder to enhance productivity with adequate motivation.

In the view of Nawaz and Kundi, (2010), the age distribution of subordinates influences the choice of leadership style adopted by heads of institutions and teachers and students' characteristics. This in this study is proposed to have an influence on school climate. The authors assert that, as experience has a positive linear relationship with age, the older a person gets, the higher the sense of obligations that develops alongside. Consequentially, this phenomenon explains why older individuals are deemed to possess much discipline as compared to younger counterparts.

For students, Table 5b reports that, the majority of them were aged between 13 and 16 years (49.4%) whereas 33 (39.8) were at least 17 years old. A minority 9 (10.8%) were less than 13 years old. Inferring from these statistics, it can be seen that majority of the students in the various Junior High Schools in the Ga West Municipality were below voting age. A statistic which speaks for the potential of the Municipality to have a much-educated youth in the nearest future. Momanyi, Too and Simiyu, (2015) in their discussions discovered that students' age had a considerable impact on their academic performance, but that age had no impact on their academic motivation. These results will help teachers, families, administration, and other partners develop solutions in the classroom and at home that will increase learning quality and, as a result, enhance students' academic performance.

Regarding the educational level of the teachers, 36 (43.4%) were graduate Diploma holders, that is teacher trainee graduates, 43 (51.8%) were first degree holders whereas 4 (4.8%) had postgraduate study. The significant proportion of teachers who possess graduate certification implies that the Junior High School teachers in the Ga West Municipality possess the average requisite knowledge and skills to ensure the effective

execution of teaching and learning in the various Junior High Schools in the Municipality.

In terms of teaching experience, Table 5 reports that, 31 (37.3%) of these teachers had been in the profession for less than 5 years. 50 (60.2%) had been in the teaching profession for between 5 and 9 years whereas only 2 (2.4%) had been teaching for at least 10 years. These statistics imply that, some of these teachers were new teachers who were posted to these schools in the last but two teacher trainee postings. However, they have been teaching long enough to have enough information on the school climate at their respective schools or to be acquainted with the students. An indication that, the teachers considered for the study have significant experience in teaching and are in the best position to provide authentic information on the subject matter under review in this study.

4.2 Quality of School Climate of Schools

This section of the analysis focuses on achieving the first research objective which was to, “assess the quality of the school climate in the selected Junior High schools in the Ga West Municipality”. Since this study is a multidimensional research, the study employed the use of an independent samples t-test to compare the perceived quality of the school climate from both students’ and teachers’ perspectives. The study however began the analysis by reporting on the descriptive statistics of the school climate from students and teachers prior to the conduct of the independence samples. As has been stated in the methodology, the measurement of School Climate is based on the Authoritarian School Climate Model which encompasses four constructs. The descriptive statistics included sample means and standard deviation. A higher standard deviation indicates a higher degree of dispersion and implies that the sample mean is

not robust as a measure of a given measure whereas a smaller standard deviation indicates a smaller degree of dispersion and implies the mean is robust. The results of the descriptive statistics are displayed in Table 6, Table 7, and Table 8.

Table 6: School Climate - Structure

Structure	Min	Max	Mean	Std. Dev
Teachers				
Students know the school rules for student conduct	2	5	3.7952	0.92075
The punishment for breaking school rules is the same for all students	3	5	4.2651	0.66414
If a student does something wrong, he or she will definitely be punished	3	5	4.1687	0.71259
Students cannot get away with breaking the rules at this school easily	2	5	4.2771	0.70388
When students are accused of doing something wrong, they get a chance to explain	2	5	3.8916	0.73272
Students are suspended for minor reasons	1	5	2.0361	0.78780
Students				
The school rules are fair	1	5	3.1928	1.12030
The punishment for breaking school rules is the same for all students	1	5	3.0241	1.09295
Students at this school are only punished when they deserve it	3	5	3.7831	0.73332
When students are accused of doing something wrong, they get a chance to explain	1	5	2.9880	1.25420
Students are treated fairly regardless of their ethnicity	3	5	3.9277	0.79300
My teachers expect a lot from students	1	5	3.6024	1.20911

Source: Field Data (2022)

Table 6 reports that, in terms of structure, majority of the teachers agreed that, students know the school rules for student conduct ($M = 3.7952$; Std. Dev = 0.92075), that the punishment for breaking school rules is the same for all students ($M = 4.2651$; Std. Dev = 0.66414), if a student transgresses, they will unquestionably face consequences ($M = 4.1687$; Std. Dev = 0.71259), students cannot get away with breaking the rules at this school easily ($M = 4.2771$; Std. Dev = 0.70388) and that when students are accused of doing something wrong, they get a chance to explain ($M = 3.8916$; Std. Dev = 0.73272).

However, majority of the teachers disagreed that, students are suspended for minor reasons ($M = 2.0361$; Std. Dev = 0.78780).

For students, majority agreed that, students at their school were only punished when they deserve it ($M = 3.7831$; Std. Dev = 0.73332), that students were treated fairly regardless of their ethnicity ($M = 3.9277$; Std. Dev = 0.79300) and that their teachers expect a lot from students ($M = 3.6024$; Std. Dev = 1.20911). Majority of the students however, were indifferent that, the school rules are fair ($M = 3.1928$; Std. Dev = 1.12030), the punishment for breaking school rules is the same for all students ($M = 3.0241$; Std. Dev = 1.09295), and that when students are accused of doing something wrong, they get a chance to explain ($M = 2.9880$; Std. Dev = 1.25420).

Table 7: School Climate - Respect

Respect	Min	Max	Mean	Std. Dev
Teachers				
Most teachers and other adults at this school care about all students	3	5	4.2530	0.69569
Most teachers and other adults at this school want all students to do well	2	5	4.3133	0.69717
Most teachers and other adults at this school listen to what students have to say	2	5	4.1566	0.86224
Most teachers and other adults at this school treat students with respect	3	5	4.1325	0.76143
Students				
Most teachers and other adults at this school care about all students	1	5	2.8072	1.14186
Most teachers and other adults at this school want all students to do well	1	5	3.4575	0.84538
Most teachers and other adults at this school listen to what students have to say	1	5	2.8795	1.10870
Most teachers and other adults at this school treat students with respect	1	5	2.9759	1.15796

Source: Field Data (2022)

Table 7 reports that, in terms of Respect as a measure of School Climate, majority of the teachers agreed to each statement on Respect in their respective schools. Thus, teachers and other adults at this school care about all students ($M = 4.2530$; Std. Dev =

0.69569), most teachers and other adults at this school want all students to do well ($M = 4.3133$; Std. Dev = 0.69717), most teachers and other adults at this school listened to what students have to say ($M = 4.1566$; Std. Dev = 0.86224), and that most teachers and other adults at this school treat students with respect ($M = 4.1325$; Std. Dev = 0.76143).

For students, in terms of Respect, majority of these students perceived the respect in the school to be moderate. Thus, majority of them were neutral that, most teachers and other adults at this school care about all students ($M = 2.8072$; Std. Dev = 1.14186), most teachers and other adults at this school want all students to do well ($M = 3.4575$; Std. Dev = 0.84538), most teachers and other adults at this school listen to what students have to say ($M = 2.8795$; Std. Dev = 1.10870) and that most teachers and other adults at this school treat students with respect ($M = 2.9759$; Std. Dev = 1.15796).

Table 8: School Climate – Willingness to Seek Help

Willingness to Seek Help	Min	Max	Mean	Std. Dev
Teachers				
Students feel comfortable asking for help from teachers if there is a problem	1	4	3.1446	0.95167
Students know whom to go to for help if they have been treated badly by another	1	5	3.7229	0.88777
Students feel comfortable asking for help from teachers if there is a problem with their school work	1	5	3.1084	1.10445
Students				
There are adults at this school I could talk with if I had a personal problem	1	4	2.8554	0.84294
If I tell a teacher that someone is bullying me, the teacher will do something to help	2	5	3.7229	0.87392
I am comfortable asking my teachers for help with my schoolwork	1	5	2.5904	1.09362
There is at least one teacher or other adult at this school who really wants me to do well	1	5	3.3373	1.17159

Source: Field data (2022)

In terms of Willingness to Seek Help, Table 8 reports that, majority of the teachers agreed that, students knew whom to go to for help if they have been treated badly by

another ($M = 3.7229$; Std. Dev = 0.88777). However, majority were neutral that students felt comfortable asking for help from teachers if there is a problem ($M = 3.1446$; Std. Dev = 0.95167) and that, students felt comfortable asking for help from teachers if there is a problem with their school work ($M = 3.1084$; Std. Dev = 1.10445).

For students, majority agreed that, if they told a teacher that someone was bullying them, the teacher would do something to help ($M = 3.7229$; Std. Dev = 0.87392).

However, majority of the students were neutral to the rest of the statements with respect to their willingness to seek help in school. Thus, majority were neutral that, there are adults at their respective schools which they could talk with if they had a personal problem ($M = 2.8554$; Std. Dev = 0.842941), that they are comfortable asking their teachers for help with their schoolwork ($M = 2.5904$; Std. Dev = 1.09362) and finally that there is at least one teacher or other adult at their respective schools who really wants them to do well ($M = 3.3373$; Std. Dev = 1.17159).

The study went further to conduct an independent samples t-test to determine the perceived quality of the School Climate of the selected Junior High Schools in the Ga West Municipality. A summary of which is displayed in Table 9.

Table 9: Comparison of Students and Teachers Perspective of School Climate

Variable		Mean	Std. Dev	t	p-value
Structure	Teachers	3.7390	0.31472	5.910	0.000
	Students	3.4197	0.37842		
Respect	Teachers	4.2139	0.34290	14.408	0.000
	Students	3.0301	0.66534		
Willingness to Seek Help	Teachers	3.6325	0.48031	6.593	0.000
	Students	3.1265	0.50813		

Source: Field Data (2022)

Table 9 reports that in terms of structure of the school, there is a statistically significant difference between the perceived quality of school structure amongst teachers ($M = 3.7390$; Std. Dev = 0.31472) and that of students ($M = 3.4197$; Std. Dev = 0.37842). This is indicated by a p-value of 0.0000 which is significant at 1%. In terms of quality of perceived respect in the respective schools, again, there is a statistically significant difference between that of teachers ($M = 4.2139$; Std. Dev = 0.34290) and that of students ($M = 3.0301$; Std. Dev = 0.66534). This is again indicated by a p-value of 0.000 showing statistical significance at 1%. The above statistics again reports similar disparities in the perceived quality of willingness to seek help amongst teachers ($M = 3.6325$; Std, Dev = 0.48031) and that of students ($M = 3.1265$; Std. Dev = 0.50813). These statistics again being significant at 1%.

These findings suggest that while students have a moderate view of the quality of the school climate in the individual junior high schools in the Ga West Municipality, teachers have a greater perception of it. A friendly environment and high standards are both required for a pleasant school climate, according to the authoritative model. Studies on school environment have largely supported the idea that school support and structure should be a primary factor in the research. For instance, Johnson's (2009) analysis of 25 research found that "children who are aware of school regulations and think they are fair" and "have excellent connections with their instructors" likely to attend schools with lower levels of violence (p. 451). Positive correlations between academic results and the authoritative school climate model have been established in research. According to Pellerin's (2005) research, secondary schools that used authoritative techniques had lower dropout rates and lower rates of truancy. According to a review of NELS data, challenging but responsive schools were shown to have more engaged students than other types of schools (Gill et al., 2004).

According to Lee (2012), a positive school atmosphere was linked to greater student involvement and reading proficiency. Wang and Eccles (2013) found that higher levels of behavioural, emotional, and cognitive engagement were associated with "school structure support" (defined as the clarity and consistency of teacher expectations) and "teacher emotional support" (defined as the level of care and support from teachers). They did not, however, apply a reliable conceptual framework in a direct way. According to two studies that used the Authoritative School Climate Survey, academic performance was better in schools that had high expectations for pupils and encouraging teacher-student connections.

According to the authoritative school climate model, improving student outcomes can be achieved by establishing a supportive and orderly learning environment. It places a strong emphasis on the value of unambiguous expectations, encouraging connections, and group decision-making within the school community. Once more, students' academic outcomes can benefit from their active participation in and enthusiasm in their learning. Students that are actively involved in their education will be more motivated, focused, and willing to put out an effort, which will increase learning and performance in general.

4.3 Influence of School climate on Academic Performance

This section of the analysis focuses on achieving the second research objective which was to, "examine the influence of school climate on academic performance of students in selected Junior High Schools in the Ga West Municipality". The study employed the use of a Multiple Regression Analysis in this section. The main dependent variable being academic performance as measured by BECE results of the selected schools measured as the average of the grade point of the students. The model was also

controlled for some demographic characteristics such as teachers' age, gender and the level of experience. The summary of the results is displayed in Table 10.

Table 10: Influence of School Climate on Academic Performance

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	2.695	1.527		1.765	.080
	Structure	.882	.310	.311	2.846	.005
	Respect	-.406	.131	-.318	-3.102	.002
	Willingness	.304	.197	.146	1.544	.125
	Teachers Age	-.069	.137	-.048	-.502	.616
	Teachers Gender	-.205	.250	-.078	-.819	.414
	Teachers Experience	-.114	.216	-.054	-.527	.599

a. Dependent Variable: Performance

R = 0.360

R Square = 0.129

Adj R Square = 0.085

Source: Field Data (2022)

Table 10 reports that, the Structure of the school (B = 0.882; Std. Err = 0.310; p-value = 0.005) had a significant positive effect on the academic performance of students in the selected Junior High Schools in the Ga West Municipality. Thus, any given improvement to the structure of the various school, will account for an 88.2% increase in the academic performance of the students. Also, Willingness to seek help (B = 0.304; Std. Err = 0.197; p-value = 0.125) improves students' academic performance by an estimated 30.4%, however, there exists no statistical significance between the willingness to seek help by students in the selected schools and their academic performance. The current degree of respect (B = -0.406; Std. Err = 0.131; p-value = 0.002) however has a significant negative effect on the academic performance of students in the Ga West Municipality. Thus, the academic performance of the student decreases by an estimated 40.6% given any changes in the quality of respect in the school.

According to the Social Identity Theory, group members will become more driven to achieve the group's objectives and will thus exert more effort to see that these goals are accomplished as soon as they feel the group has psychological importance for them (Haslam, Powell & Turner, 2000). The concept of school climate in the context of education embodies the norms, attitudes, and beliefs of the "school" group. A major objective of the school as a whole is to place a high focus on academics, foster positive staff-student relationships, and establish a common set of principles and methods that all contribute to the effective learning of students (Reynolds, Lee, Turner, Bromhead & Subasic, 2017). As a result, students' affiliation with their school may have an impact on their academic performance. An encouraging and welcoming school climate helps students identify with the school as a significant group to them, where they find meaning and belonging. They are thus more likely to naturally internalise the school's ideals and norms, emphasising study and success (Muijs & Reynolds, 2017).

According to the ecological systems theory, for any thorough investigation of how the school environment may affect a child's academic performance, it is essential to include both instructors' and students' perspectives on it. Additionally, for children in their early years, evaluation practices, social structures, and social interactions may have both immediate and long-term implications. This layer of the theory states that if junior high school instructors strive toward a clear objective and have a better grasp of their purpose, these practices will have a substantial impact on students' academic performance.

These findings are consistent with earlier studies by Konold et al. (2018), who investigated the authoritative school climate theory and discovered that high levels of structure and student support promote higher levels of student engagement and academic performance, as evidenced by graduation rates and school performance on

state-mandated tests. The model was tested using a multilevel, multi-informant structural model comparable to the one employed in this study. Structure and student support were linked to higher levels of student engagement in schools, which is consistent with the authoritative school environment concept. These results are also consistent with those of Greenway (2017), whose quantitative investigation found a statistically significant favourable association between school atmosphere and pupil success in middle schools in this area. However, the study of Greenway (2017) focused on a unidimensional measurement of school climate which is insufficient.

Makewa, Role and Yegoh (2011) made an effort to identify the types of school climates present in all of the provincial secondary schools in Nandi-Central Municipality, Kenya, as well as the differences in school climates between the high and low performing province secondary schools. Using a causal comparative study technique, the mean assessments of the school environments of 103 teachers from four high-performing schools and four low-performing schools were compared and analysed to identify the number of discrepancies and their implications. High performing schools have a better environment, milieu, and school culture than low performing schools. School atmosphere was found to have a substantial impact on the academic performance of students at provincial secondary schools in Nandi-central Municipality. Amongst the control variables used in this study, teachers' age ($B = -0.069$; Std. Err = 0.137; p -value = 0.616), teachers' gender ($B = -0.205$; Std. Err = 0.250; p -value = 0.414) and the experience of teachers ($B = -0.114$; Std. Err = 0.216; p -value = 0.599) had no significant negative effects on the academic performance of the students in the selected Junior High Schools in the Ga West Municipality. These findings suggest that older teachers have a negative impact on students' academic performance. In contrast, female students fare worse academically. Additionally, a teacher's students do academically

worse the older he is. However, these statistics are not statistically significant. Implying that, none of the variables used as controls in this model had significant effects on the academic performance of the students.

The above statistics reports that, the predictor variables explained an estimated 8.5% (adj R square = 0.085) of the variation in the dependent variables in this study. The study conducted an ANOVA test to judge the overall goodness of fit of the model. The results are displayed in Table 11.

Table 11: One-Way ANOVA Test

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.256	6	3.209	2.945	.010 ^b
	Residual	129.669	119	1.090		
	Total	148.925	125			

a. Dependent Variable: Performance

b. Predictors: (Constant), Teachers Experience, Teachers Age, Respect, Willingness, Teachers Gender, Structure

Source: Field Data (2022)

The results of the ANOVA test indicates that overall, the model is statistically fit ($F = 2.945$; $p\text{-value} = 0.010$) for predicting the effects of School Climate on Academic Performance of students. Thus, school climate has overall significant effects on the Academic Performance of Students in the Ga West Municipality.

Teachers can learn more about fostering an inclusive and supportive school climate by recognizing and addressing aspects including group dynamics, stereotyping, and intergroup connections in the classroom. Improved student wellbeing, engagement, and academic success will result from this. A thorough grasp of the school atmosphere can be obtained by looking at many spheres of influence on children' growth. When educators are aware of these interrelated systems as they are described in the bio-

ecological systems theory, they can devise plans for fostering a supportive environment in the classroom that fosters students' intellectual, social, and emotional welfare.

4.4 Influence of Student Engagement on Academic Performance

This section of the analysis focuses on achieving the third research objective which was to, “assess the influence of Student Engagement as an element of school climate on academic performance of students in selected Junior High Schools in the Ga West Municipality”.

The study employed the use of a Multiple Regression Analysis in this section. The main dependent variable being academic performance as measured by BECE results of the selected schools measured as the average of the grade point of the students. Additionally, the age, gender, and level of experience of the teachers were adjusted for in this model. However, the researcher started by presenting descriptive statistics on the level of school engagement at the different schools, then it compared the perspectives of students and instructors on the level of engagement. A Summary of the results is Displayed in Table 12a and 12b.

Table 12a: Student Engagement

Engagement	Min	Max	Mean	Std. Dev
Teachers				
Students love going to school	3	5	4.0361	0.73990
Students are proud to be at this school	2	4	3.0723	0.72890
Students finish their homework at this school	1	4	2.5904	0.82693
Getting good grades is very important to most students here	2	5	3.4217	1.00147
Most students want to learn as much as they can at this school	1	4	2.9157	0.87241
Students				
I like this school	1	5	3.0361	0.94283
I am proud to be a student at this school	1	5	3.1446	1.04919
I usually finish my homework	1	5	2.9036	1.21590
I want to learn as much as I can at school	2	5	3.6988	0.86581
Getting good grades is very important to me	3	5	3.9639	0.68869

Table 12b: Comparison Between Students and Teachers' Perspective of Student Engagement

Variable		Mean	Std. Dev	T	p-value
Engagement	Teachers	3.2072	0.40176	-2.285	0.024
	Students	3.3494	0.39981		

Source: Field Data (2022)

Table 12a reports that, quality of students' engagement, majority of the teachers agreed that, students love going to school ($M = 4.0361$; Std. Dev = 0.73990). However, majority of these teachers were neutral that, students were proud to be at their respective schools ($M = 3.0723$; Std. Dev = 0.72890), students finish their homework at the school ($M = 2.5904$; Std. Dev = 0.82693), getting good grades is very important to most students in their respective schools ($M = 3.4217$; Std. Dev = 1.00147) and that most students want to learn as much as they can at the school ($M = 2.9157$; Std. Dev = 0.87241).

For students, Table 12a reports that, majority of them agreed that, they want to learn as much as they could at their school ($M = 3.6988$; Std. Dev = 0.86581) and that getting good grades is very important to them ($M = 3.9639$; Std. Dev = 0.68869). However, majority of these students were neutral that they liked their school ($M = 3.0361$; Std. Dev = 0.94283), they are proud to be a student at their school ($M = 3.1446$; Std. Dev = 1.04919) and that they usually finish their home works ($M = 2.9036$; Std. Dev = 1.21590).

Comparing the perceived quality of student engagement between students and teachers in the selected Junior High Schools in the Ga West Municipality, Table 12b reports that, students ($M = 3.3494$; Std. Dev = 0.39981) perceived the level of engagement to be higher than teachers ($M = 3.2072$; Std. Dev = 0.40176). According to these figures, there is a considerable discrepancy in how teachers and students at the chosen junior

high schools in the Ga West Municipality view student participation. These findings are supported by Delfino's (2019) research, which looked at the connection between student engagement and academic performance. With a mean of 2.84, the study, which used a descriptive correlational methodology, indicated that student involvement was high across engagements in behaviour, emotion, and cognition.

The results of the Multiple regression of the influence of Student Engagement on Academic Performance are displayed in Table 13.

Table 13: Influence of Student Engagement on Academic Performance

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	8.056	.816		9.870	.000
	Engagement	.766	.223	.302	3.429	.001
	Teachers Age	-.112	.130	-.077	-.857	.393
	Teachers Gender	-.180	.248	-.069	-.723	.471
	Teachers Experience	-.135	.190	-.063	-.710	.479

a. Dependent Variable: Performance
R = 0.348
R Square = 0.121
Adj R Square = 0.092

Source: Field Data (2022)

Table 13 reports that, student engagement ($B = 0.766$; Std Err = 0.223; p -value = 0.001) has a significant positive effect on the academic performance of the students in the selected Junior High Schools in the Ga West Municipality. Thus, inferring from these statistics, any improvement in the level of student engagement of the selected schools will lead to a 76.6% improvement in the academic performance of the students in the various Junior High Schools in the Ga West Municipality. These statistics are significant at 1% confidence level. Thus, schools that have a higher level of student engagement are likely to record higher performances on the BECE.

Confirming these findings are the findings of Delfino (2019) who determined the correlation between student engagement and academic performance. The author found out that academic performance of the respondents was very good. The correlational analysis found that teacher ($r = .125$, $p = .029$), school ($r = .143$, $p = .013$), and family factors ($r = .106$, $p = .028$) were positively related to student engagement, while the Multiple Linear Regression analysis revealed that there was relatively low percentage of variance (1.8%) but shows that the factors were significant predictors of student engagement $F(3, 301) = 2.905$. Furthermore, it was found out that behavioural, emotional and cognitive engagements were positively correlated to the academic performance of the students.

Gunuc (2014) also aimed at determining the extent to which student engagement explains or predicts academic performance and revealed that there were significant relationships between the students' academic performance and student engagement as well as between their academic performance and especially the dimensions of cognitive engagement, behavioural engagement and sense of belonging. In addition, it was found out that cognitive, behavioural and emotional engagements - that is class engagement - predicted academic performance and explained it with a rate of 10%. This is in line with the findings of Essiam (2020), who found that academic challenge, lecturer feedback, student learning experience, student experience with faculty, and peer learning significantly influenced student involvement. Academic performance was also discovered to be positively and significantly influenced by student engagement. Results showed that students who engaged in entrepreneurial activities were likely to perform poorly academically, despite the fact that the majority of students did not do so.

Amongst the control variables used in this model, teachers age ($B = -0.112$; Std Dev = 0.130; p -value = 0.393), teachers' gender ($B = -0.180$; Std. Dev = 0.248; p -value = 0.471) and teachers' experience ($B = -0.135$; Std. Dev = 0.190; p -value = 0.479) did not have significant negative effects on the academic performance of the students considered in this study. The study conducted an ANOVA test to judge the overall goodness of fit of the model. The results are displayed in Table 14.

Table 14: ANOVA Test

		ANOVA ^a				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.080	4	4.520	4.180	.003 ^b
	Residual	130.845	121	1.081		
	Total	148.925	125			

a. Dependent Variable: Performance

b. Predictors: (Constant), Teachers Experience, Teachers Age, Engagement, Teachers Gender

Source: Field Data (2022)

The results of the ANOVA test indicates that overall, the model is statistically fit ($F = 4.180$; p -value = 0.003) for predicting the influence of Student Engagement on Academic Performance of students. Thus, the level and quality of student engagement has significant effects on the Academic Performance of Students in the Ga West Municipality. This indicates that, schools which have a higher level of student engagement have higher tendency of recording significant passes in the BECE.

Teachers and can find efficient methods to establish a positive learning environment by understanding the connection between student engagement, academic performance, and school climate. As a result, there will be more motivated and high self-esteem students, which will improve the environment at school as a whole.

4.5 Moderating Role of Student Engagement on the Relationship between School Climate and Academic Performance

This section of the analysis focuses on achieving the final research objective which was to, “assess the moderating role of Student Engagement in the relationship between School Climate and academic performance of students in selected Junior High Schools in the Ga West Municipality”. The study employed a moderation analysis in this section. As a first step to conducting a moderation analysis in SPSS, it was necessary to standardise the moderator (Engagement) and the independent variable (School Climate). This was done to cater for multicollinearity. After standardising, the interaction between the measures of School Climate and Student Engagement was calculated (INTStructure, INTRespect and INTWillingness) before the Multiple regression was conducted. A Summary of the results is Displayed in Table 15.

Table 15: Moderation Role of Engagement on School Climate and Academic Performance

Coefficients ^a		Unstandardized Coefficients		Standardised Coefficients	
Model		B	Std. Error	Beta	T Sig.
1	(Constant)	3.450	1.567		2.202 .030
	Structure	.739	.320	.260	2.306 .023
	Respect	-.374	.132	-.293	-2.842 .005
	Willingness	.228	.203	.110	1.126 .262
	INTStructure	-.122	.105	-.130	-1.165 .246
	INTRespect	-.010	.143	-.008	-.070 .944
	INTWillingness	-.116	.103	-.107	-1.126 .263
	Teachers Age	-.073	.137	-.051	-.536 .593
	Teachers Gender	-.351	.264	-.134	-1.329 .187
	Teachers Experience	-.090	.218	-.042	-.410 .682

a. Dependent Variable: Performance

R = 0.401

R Square = 0.161

Adj R Square = 0.096

Source: Field Data (2022)

Table 15 indicates that, student engagement does not moderate the relationship between structure ($B = -0.122$; Std. Err = 0.105; p -value = 0.246), Respect ($B = -0.010$; Std Err = 0.143; p -value = 0.944) and Willingness to seek help ($B = -0.116$; Std Err = 0.103; p -value = 0.263). Thus, the level of student engagement in the selected Junior High Schools in this study does not play a significant role in the relationship between school climate and students' academic performance.

These statistics come as a contradiction to the findings of Sbrocco, (2019) who examined the relationship between academic engagement and the performance of eighth grade students in three suburban middle schools. The author found that, the influence of engagement has the ability to reduce the influence of race, a variable implicit in school climate on academic performance. As such, this begs the question on why student engagement does not moderate the relationship between school climate and academic performance of the students in this study. The known conclusions to be drawn from these findings may be related to student engagement being influential in some components of school engagement but not the overall school climate and as such must be tested individually.

The author's hypothesis was supported by three results, the main one being that engagement is a multidimensional construct and that the more students are engaged in their studies, the more these findings are supported by Lee's (2018) conclusions. Future research may therefore build on the ASC model employed in this study to increase the body of knowledge regarding the contribution of student engagement to the relationship between school atmosphere and academic performance.

The works of Abbing (2013) explored the impact of students' participation regarding their academic accomplishment over the length of their school years, which helps to explain the data. According to the stage of the students' academic careers and whether effects on language or math performance were measured, the author found an effect on academic performance for each component of the engagement model that was put to the test. However, the nature of the effect differed. The results imply that in order to fully understand the connection between student involvement and academic performance, it is vital to take into account the different facets of engagement within the context of the students' stage in their academic careers. The study conducted an ANOVA test to judge the overall goodness of fit of the model. The result is displayed in Table 16. The results of the ANOVA test indicates that, the model overall is statistically fit ($F= 2.470$; $p\text{-value}= 0.013$) for predicting the moderating role of student engagement on the relationship between school climate and student academic performance.

The intensity and direction of the relationship between school atmosphere and academic performance can be affected by educators' awareness of the level of student participation. Positive school climate can improve students' academic performance even more when they are actively engaged in their studies. The impact of school climate on academic performance, however, may be diminished if students are not engaged. This knowledge can assist teachers in creating focused interventions to improve student engagement and maximise the benefits of a positive school climate.

Table 16: ANOVA Test

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.947	9	2.661	2.470	.013 ^b
	Residual	124.978	116	1.077		
	Total	148.925	125			

a. Dependent Variable: Performance

b. Predictors: (Constant), Teachers Experience, INTStructure, Respect, Teachers Age, INTWillingness, Willingness, Teachers Gender, Structure, INTRespect

Effective leadership and decision-making in educational settings can be influenced by an understanding of social identities and group dynamics. Administrators and managers may establish inclusive and supportive settings that foster healthy social relationships and improve student engagement and academic success by understanding how social identities affect people's attitudes, behaviours, and interactions. In order to foster a feeling of community and lessen social divisions within the educational community, educational administrators and managers will assist in addressing issues connected to diversity, equity, and inclusion.

Educational administrators and managers can learn from the various systems that have an impact on students' development, such as their family, school, and community, in order to create a supportive environment that meets the diverse needs of students, fosters their holistic development, and improves academic performance. They will learn how to establish environments that encourage role modelling, skill development, and self-directed learning. They will also learn how to provide people feedback to help them stay motivated.

Educators must provide their staff members the authority they require. Teachers may be more likely to have favourable connections with their bosses as a result. It is more probable that relationships between teachers and children will be healthy if a principal

and their school personnel get along well and instructors feel empowered in their roles to appropriately and actively participate in their own professional development. Schools can aid in instilling a sense of belonging to the school in children if stakeholders work together to strengthen and expand the relationships that students have with their classmates and other adults in their lives, as well as by exemplifying what healthy relationships look like.



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents a summary of major findings, followed by a conclusion. Some recommendations and key opportunities for further research are proposed in this study for future researchers.

The study sought to examine the relationship between school climate and academic performance; the moderating role of students' engagement in the relationship between these two variables in selected Junior High Schools in the Ga West Municipal Assembly in Accra. The study specifically sought to, assess the quality of the school climate in the selected Junior High schools; examine the influence of school climate on academic performance; assess the influence of student engagement on academic performance of students; and to assess the moderating role of student engagement in the relationship between school climate and academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly. This study was a purely quantitative analysis where data was obtained from 83 students and 83 teachers as well as 83 results of the previous BECE from 5 schools in the said Municipality through simple random sampling.

The study focused on students and teachers of five Junior high schools including Amasaman M/A Basic School 1, Kojo Ashong Methodist Basic School, Nsakina M/A Basic School, Holy Innocent Anglican Basic and Achiaman M/A Basic School. The study employed the use of sample means and standard deviations for reporting on the

descriptive statistics of the study variables; and the independence samples t-test; and a multiple regression analysis with an acceptable significance level of 5% ($p \leq 0.05$).

5.1 Summary of Findings

The following emerged from the data as the key findings of the study;

In relation to the first objective, which was to “to assess the quality of the school climate in the selected Junior High schools in the Ga West Municipal Assembly” the study found that, teachers have a higher perception of the quality of the school climate in the respective Junior High Schools in the Ga West Municipality whereas students had a moderate perception of the quality of school climate.

In relation to the second objective, which was to “examine the influence of school climate on academic performance of students in selected Junior High schools in the Ga West Municipal Assembly”, the study found that, the structure of the school had a significant positive effect on the academic performance of students in the selected Junior High Schools in the Ga West Municipality; Willingness to seek help improved students’ academic performance by an estimated 30.4%, however, there exists no statistical significance. The current degree of respect in the selected schools has a significant negative effect on the academic performance of students in the Ga West Municipality.

In relation to the third objective, which was to, “assess the influence of student engagement as an element of school climate on academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly” the study found that student engagement has a significant positive influence on the academic performance of the students in the selected Junior High Schools in the Ga West

Municipality. Thus, any improvement in the level of student engagement of the selected schools will lead to a 76.6% improvement in the academic performance of the students. In relation to the fourth objective, which is to, “assess the moderating role of student engagement in the relationship between school climate and academic performance of students in the selected Junior High schools in the Ga West Municipal Assembly” the study found that student engagement does not moderate the relationship between any component of school climate in the selected Junior High Schools and the students’ academic performance.

5.2 Conclusions

Given the outcomes of the study, the following conclusions are made;

Firstly, the study concludes that there exists a relatively moderate overall quality of school climate in the selected Junior High Schools in the Ga West Municipality. Teachers however, perceived the school climate in the respective schools to be high, whereas students do not share that sentiment.

Secondly, schools with higher quality of school climate have a higher likelihood of improving students’ academic performance although some components of the school climate in the selected schools actually reduces students’ academic performance.

Thirdly, schools with a higher level of student engagement have a higher likelihood of improving the academic performance of students in the selected Junior High Schools in the Ga West Municipality. Student engagement however, does not play a strong moderating role in the relationship between school climate and the academic performance of students in the selected Junior High Schools in the Municipality.

To show a strong association between a positive school climate and national-level academic performance that goes beyond previous studies, this study used a more precise

conceptual model of school climate and a more rigorous multilevel, multi-trait multimethod analysis of latent variables using a larger sample of 83 Junior high school students. Even while some earlier research had produced contradicting results about the relationship between school atmosphere, student engagement, and academic outcomes, the current study examined a more extensive model that highlighted potential linkages between these factors.

The findings of this study suggest there are high levels of student participation which have a higher likelihood of improving the academic performance of students in the selected Junior High Schools in the Ga West Municipality. The results also indicate that school climate plays a critical part in student engagement and academic performance. Examination and discussion of these results suggest the information collected yields a variety of opportunities for further decision-making, opportunities for collaboration and opportunities to take further action in order to improve the school climate and engagement of students which will improve the academic performance of the students. student outcomes and school level outcomes. Again, student engagement has an influence on academic performance, and as such improvements in engagement should lead to higher academic success.

5.3 Recommendations

With respect to the findings of this study and the conclusions inferred from the discussions, the following recommendations are implied.

1. As the study found that some components of the school climate model in this study reduced the academic performance of students, this study recommends that, a productive school climate is investigated and established. The elements of a successful school environment should be determined in advance by

policymakers, who should then establish a healthy and effective school climate policy to be followed in all schools and across the community. The focus should be on creating an open-ended school climate as this is the one which is deemed healthy from empirical studies.

2. Again, since some components of the school climate model in this study had no significant effects on the academic performance of students, it is imperative that policy makers as well as school management make efforts to assess and improve the school climate in place at the respective schools. To achieve a healthy and productive level of school climate, policymakers should choose or create an instrument that can measure school climate level and compare the level of climate it earns with a specified standard value. All instruments' validity and reliability must be confirmed using the tested metrics provided by evaluation tools like the Comprehensive School Climate Inventory. This will help identify which aspects of a school is inimical to students' academic success.
3. The study again found that, the perceived quality of the overall school climate in the various schools were higher from teachers' perspective whereas being lower from students' perspective. As a result, school leaders and teachers must establish a school climate team with the aim of enhancing professional development of teachers so that they can learn about school climate research and best practises.
4. Furthermore, in order to direct efforts to enhance school environment, the established school climate authority must employ data-driven decision-making procedures. The purpose is to enhance objectivity in measurement so as to cater for the disparity in the perceptions of students and teachers concerning the quality of the school climate. This explains why student engagement was found

to not moderate the relationship between school climate and academic performance of students.

5. Therefore, it is important for the head of the school and teachers to understand the existing climate of the school to develop the physical environment of the school that promotes students' emotional wellbeing and student engagement.
6. Thus, teachers are to be proactive and resourceful in providing quality structure of learning and scaffolding of tasks to the students. Moreover, this finding recommends to school to frequently conduct professional development course for teachers to keep them practically rich in providing quality teaching and learning experiences to the students.

5.4 Areas for Future Research

The methodology and scope of the investigation were both constrained. The outcomes of this investigation were analysed using a strictly quantitative methodology. The quantitative analysis is restricted in its attempts to establish the complex interpretations that these respondents may have for some items included in the research, despite its robustness. As a result, these respondents were unable to explain in detail why they gave specific responses, which would not have been the case if structured interviews had been employed. As a result, other researchers may employ a combination of quantitative and qualitative analysis to examine the issue in the future. Again, in measuring the school climate, the study relied on the Authoritarian School Climate model. Although multidimensional and robust, future studies can employ the model in relations with other models for more conclusive analysis.

The research was also carried out in the Ga West Municipality. Because of the study's geographical breadth, certain features, such as teachers' education, school climate and

student engagement may not apply to all schools in Ghana's numerous municipalities and municipalities. As a result, future studies may focus on other Districts and municipalities for detailed evaluation. A comparative study may also be conducted measuring the differences in school climate outcomes of rural and urban areas to enhance the analysis.



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APPENDIX A

University Of Education, Winneba Department of Educational Administration and Management

QUESTIONNAIRE FOR TEACHERS

Dear Respondent,

This questionnaire is designed to solicit your views on the Influence of School Climate on Academic Performance in Junior High Schools in Ga West Municipal Assembly.

It would be very much appreciated if you could respond to the items the way you think you should, and not according to how other people would like you to respond to them.

All information provided was used for research purposes only for the Department of Educational Administration and Management of the University of Education, Winneba and will be treated as confidential.

Please, do not write your name. Thank you.

QUESTIONNAIRE FOR TEACHERS

SECTION A: Demographic Characteristics of Respondents

1. Age of Respondent [] Less than 30 [] 30 – 39 years [] 40 – 49 years [] 50 and above
2. Gender [] Male [] Female
3. Educational Level [] Graduate Diploma [] First Degree [] Master's Degree [] PhD
4. Teaching Experience [] Less than 5 years [] 5 to 9 years [] at least 10 years

SECTION B: Measurement of School Climate and Student Engagement

On a scale of 1 – 5, indicate your agreement to the following questions as pertaining to the school climate in your school. 1= Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5= Strongly Agree. **Tick as they Apply**

Measure	1	2	3	4	5
Engagement					
Students love going to school					
Students are proud to be at this school					
Students finish their homework at this school					
Getting good grades is very important to most students here					
Most students want to learn as much as they can at this school					
Structure					
Students know the school rules for student conduct					
The punishment for breaking school rules is the same for all students					
If a student does something wrong, he or she will definitely be punished					
Students cannot get away with breaking the rules at this school easily					
When students are accused of doing something wrong, they get a chance to explain					
Students are suspended for minor reasons					
Respect					
Most teachers and other adults at this school care about all students					
Most teachers and other adults at this school want all students to do well					
Most teachers and other adults at this school listen to what students have to say					
Most teachers and other adults at this school treat students with respect					
Willingness to Seek Help					
Students feel comfortable asking for help from teachers if there is a problem					
Students know whom to go to for help if they have been treated badly by another					
Students feel comfortable asking for help from teachers if there is a problem with their school work					
Teachers/staff take action to solve the problem when students report bullying					

Source: Adapted from the Authoritarian School Climate Model used by Konold, Cornell, Jia & Malone, (2018)

APPENDIX B

University of Education, Winneba Department of Educational Administration and Management

QUESTIONNAIRE FOR PUPILS

The researcher is carrying out a study in connection with the Influence of School Climate on Academic Performance in Junior High Schools in Ga West Municipal Assembly. The project is solely on academic usage and your responses would be granted the necessary confidentiality.

I will be glad if you could spare a few minutes of your time to respond to the following questions for my school project. Any information you provide shall be treated with the utmost confidentiality and used for academic purposes only. Thank You.

QUESTIONNAIRE FOR PUPILS

SECTION A: Demographic Characteristics of Respondents

1. Age of Respondent [] Less than 13 [] 13 – 16years [] at least 17
2. Gender [] Male [] Female

SECTION B: Measurement of School Climate and Student Engagement

On a scale of 1 – 5, indicate your agreement to the following questions as pertaining to the school climate in your school. 1= Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5= Strongly Agree. **Tick as they Apply**

Measure	1	2	3	4	5
Engagement					
I like this school					
I am proud to be a student at this school					
I usually finish my homework					
I want to learn as much as I can at school					
Getting good grades is very important to me					
Structure					
The school rules are fair					

The punishment for breaking school rules is the same for all students					
Students at this school are only punished when they deserve it					
When students are accused of doing something wrong, they get a chance to explain					
Students are treated fairly regardless of their ethnicity					
My teachers expect a lot from students					
Respect					
Most teachers and other adults at this school care about all students					
Most teachers and other adults at this school want all students to do well					
Most teachers and other adults at this school listen to what students have to say					
Most teachers and other adults at this school treat students with respect					
Willingness to Seek Help					
There are adults at this school I could talk with if I had a personal problem					
If I tell a teacher that someone is bullying me, the teacher will do something to help					
I am comfortable asking my teachers for help with my schoolwork					
There is at least one teacher or other adult at this school who really wants me to do well					

Source: Adapted from the Authoritarian School Climate Model used by Konold, Cornell, Jia & Malone, (2018)

APPENDIX C

Edward Duodu,
P. O. Box 6351, Accra-North.
4th June, 2021

The Head of Department,
Department of Educational Administration and Management,
University of Education, Winneba.

Dear Sir/Madam,

INTRODUCTORY LETTER FOR DATA COLLECTION

I write in request of an introductory letter for data collection for my thesis.

Below are my details:

Name: Edward Duodu

Index Number: 200023178

Research Topic: Influence of School Climate on Academic Performance: A CASE OF Some Selected Junior High Schools in Ga West Municipal Assembly.

Attached are my research instruments.

I hope my request will be granted.

Thank you.

Yours sincerely,

Edward Duodu.
(Student)



APPENDIX D

	UNIVERSITY OF EDUCATION, WINNEBA FACULTY OF EDUCATIONAL STUDIES DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND MANAGEMENT P. O. Box 25, Winneba, Ghana deans@uaw.edu.gh
UEW/EAM/MED/6	
Date: June 08 th , 2021.	
TO WHOM IT MAY CONCERN	
Dear Sir/Madam,	
LETTER OF INTRODUCTION	
We write to introduce EDWARD DUODU a student on the M.Ed. in Educational Administration and Management programme of the Department of Educational Administration and Management.	
Edward Duodu is currently working on a research project titled:	
<i>INFLUENCE OF SCHOOL CLIMATE ON ACADEMIC PERFORMANCE: A CASE STUDY OF SOME SELECTED JUNIOR HIGH SCHOOLS IN GA WEST MUNICIPAL ASSEMBLY.</i>	
Please, give him the necessary assistance and co-operation.	
Thank you.	
Yours sincerely,	
 Salome O. Essuman (Prof.) Head of Department	
cc: Dean, School of Graduate Studies	
	www.uew.edu.gh

APPENDIX E

GHANA EDUCATION SERVICE

In case of reply the number and date of this letter should be quoted



MUNICIPAL EDUCATION OFFICE
GA WEST MUNICIPAL
P. O. BOX AM 80
AMASAMAN
E-mail: gawest@ges.gov.gh

GES/GWMEDE/MIS/2021/02 **REPUBLIC OF GHANA** 27TH SEPTEMBER, 2021
YOUR REF. NO.....

DISTRIBUTION
ALL HEADS/PROPRIETORS
PRIVATE BASIC SCHOOLS
GA WEST MUNICIPAL

Dear Sir,

LETTER OF INTRODUCTION
EDWARD DUODU

We write to introduce Edward Duodu, a student on the M.Ed. in Educational Administration and Management programme of the Department of Educational Administration and Management, from the University of Education, Winneba.

As part of his research project work, Mr Edward Duodu will be conducting a research on "Influence of School Climate on Academic Performance: A Case Study Of Some Selected Junior High Schools In Ga West Municipal Assembly"

By a copy of this letter, we wish to bring to your notice and request that you give him the needed support and co-operation when he visit your school or call you.

Thank you.



.....
MR. FRED BINKA
DEPUTY DIRECTOR OF EDUCATION
STATISTIC AND PLANNING

DEPUTY DIRECTOR
STATISTICS & PLANNING
GHANA EDUCATION SERVICE
GA WEST MUNICIPAL DIRECTORATE
P. O. BOX AM 80, AMASAMAN

APPENDIX F**SPSS OUTPUT**

Group Statistics

	Factor	N	Mean	Std. Deviation	Std. Error Mean
EngagementTeachers	Teachers	83	3.2072	.40176	.04410
	Students	83	3.3494	.39981	.04388
StructureTeachers	Teachers	83	3.7390	.31472	.03454
	Students	83	3.4197	.37842	.04154
RespectTeachers	Teachers	83	4.2139	.34290	.03764
	Students	83	3.0301	.66534	.07303
HelpTeachers	Teachers	83	3.6325	.48031	.05272
	Students	83	3.1265	.50813	.05577



APPENDIX G

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Engagement Teachers	Equal variances assumed	.187	.666	-2.285	164	.024	-.14217	.06221	-.26501	-.01933
	Equal variances not assumed			-2.285	163.996	.024	-.14217	.06221	-.26501	-.01933
Structure Teachers	Equal variances assumed	3.302	.071	5.910	164	.000	.31928	.05402	.21260	.42595
	Equal variances not assumed			5.910	158.727	.000	.31928	.05402	.21258	.42598
Respect Teachers	Equal variances assumed	15.735	.000	14.408	164	.000	1.18373	.08216	1.02151	1.34596
	Equal variances not assumed			14.408	122.689	.000	1.18373	.08216	1.02110	1.34637
Help Teachers	Equal variances assumed	1.241	.267	6.593	164	.000	.50602	.07675	.35448	.65757
	Equal variances not assumed			6.593	163.483	.000	.50602	.07675	.35448	.65757