# Relationship Between Teacher Competence, School Climate And Academic Performance Of Public Senior Secondary School Students In Sokoto State, Nigeria

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**ABSTRACT**: This study centers mainly on the relationship between teacher competence, school climate and students academic performance. The research design adopted for this study was correlation research design, under the descriptive survey research. The study was based on Maslow's Hierarchy of Need which is a motivational theory. The study was carried out using questionnaire, achievement test and focus group discussions. The questionnaire was self designed and it was based on closed- ended items with options of A,B,C,D,E and F. The population was all the public senior secondary school students in Sokoto state. A total number of twelve public senior secondary schools, with three thousand four hundred and twenty eight (3,428) as the population of SS II students, were purposively selected within the six educational zones to represent the total population. The judgmental sampling technique was used to select the schools. The qualitative data collected were analyzed through thematic analysis by coding and transcription, while the quantitative data were analyzed using Pearson Product Moment Correlation Co-efficient. The major findings of the study were: Teacher competence has relationship with student's academic performance. School climate has relationship with students' academic performance. The study recommended that, since students' academic performance can be positively influenced by teacher competence, Government should look at how programme developers, university researchers, and national and international agencies can directly conduct carefully constructed studies to create and support teacher professional competence within the school and ascertain their impact on providing good academic performance in our schools.

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## I. INTRODUCTION

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The concept of teacher competence has been researched for over a decade by various researchers. Through those studies we know a great deal about what makes a teacher effective, even though those studies and models for teacher competence have subtle differences. They all agree the gauge for teacher competence is student learning.

Garsky and Blau (2009) defined teacher competence as how an instructor can best direct, facilitate and support students towards certain academic ends, such as achievements and satisfaction. Kirchner (2009) refers to teacher competence as the capacity a teacher has to influence student learning in a manner that result in learning as measured by specific goals or outcomes. Anderson cited in Hunt (2001) states that a competent teacher is one who quite consistently achieve goals which either directly or indirectly focus on the learning of their students. Dunkin quoted in Hunt (2001) considers that teacher effectiveness is a matter of the degree to which a teacher achieved the desired effects upon students.

In order to illustrate the notion that teacher is the most influential factor affecting student achievement, Paul Wright, Sandra Horn, and William Sanders (1997) cited in Marzona and Marzona (2003) conducted a study involving 60,000 students, the result of the study shows that the most important factor affecting students learning is the teacher. In addition the result of the findings reveals wide variation in effectiveness among teachers. The immediate and clear implication of this finding is that more can be done to improve education by proving the effectiveness of teachers than by any other single factor. Effective teachers appear to be effective with students of all achievement level regardless of the levels of heterogeneity in their classes. If the teacher is ineffective, student under that teachers' tutelage will achieve inadequate progress academically, regardless of how similar or different they are regarding academic achievement.

Kirchner (2009), who examined the work of Kyriakids, Canpell, and Christofidon (2000) who conducted a school based self evaluation study that enable teachers to generate their own effectiveness criteria and to determine if the criteria as site–specific or generalizeable to a national representative sample of teachers, the research study was designed and implemented in six stages. 1<sup>st</sup> stage, researches conducted a group interview of 14 primary school teachers from Cyprus. Brain storming technique and clarifying questions were

used to generate list of characteristic of effective teachers. Stage two, involves using the constant comparative method to analyze transcripts from the group interview sessions pattern that emerged revealed 51 characteristics of effective teachers. In stage 3, 14 teachers completed questionnaires to rank the important of the 51 characteristics and organized them into categories. Next, the concept system software was used to develop a matrix and cluster analysis from the teacher's responses. Stage 5 involved teacher's group interview to verify responses and the emergent categories for stage six, the same questions were given to a random sample of 20% of Cyprus teachers that is 533 teachers. Data analysis revealed eight cluster of effective teacher characteristics as follows:-

- i). goals and intentions; developed thinking skills and effective traits of students.
- ii). Individualization; met needs of individual students.
- iii). Positive treatment of students; created a pleasant learning environment.
- iv). Love for children; respected each child
- v). Professionalism; organized daily work and used time wisely.
- vi). Collective responsibility; contributed to the school, parents and community
- vii). Personal traits; exhibited a work ethic, sense of humor and creativity, and
- viii). Responsiveness to change; showed Initiative and positive attitude.

Tshabalala and Ncube (2014) examined the role played by school climate in promoting school effectiveness in Zimbabwen Secondary Schools using a sample of 200 teachers from a population of 650 teachers in Nkayi South Circuit in Matebele Land North of Western Zimbabwe. The sample consist of 110 females and 90 males, the survey research design was employed and questionnaire is the research instrument used to collect data. The findings of the study revealed that there was a very high correlation between a positive school climate and school's high pass-rate standards. The findings also revealed that poor results were closely linked to a negative school climate. The study recommends school heads should create a conducive school climate to enhance the effectiveness of their schools.

## **II. THEORETICAL FRAMEWORK**

The theories that are chosen to form the theoretical framework of the study are the Maslow's Hierarchy of Need, which is a motivational theory of administration and the Human Relation theory which falls under the fundamental theories of administration.

Peretomode (1991) in his analysis of Maslow's hierarchy of needs theory in relation to school setting, pointed out that Maslow postulated five basic human needs which are arranged according to levels of importance. Starting with the lowest (most basic needs) physiological, safety and social needs and the high needs according to him are ego esteem. Peretomode (1991) state that, in the school system, the salary one earns enables him to satisfy this needs but if unfulfilled then it results to dissatisfaction which effect productivity and quality performance in the work

While talking about safety needs in relation to school setting these includes: the need for security, safety, protection against danger and accidents (threat, deprivation, psychological harm, economic disaster) and stability in the physical and internal events of Day to Day life. In the school, teachers want to have a feeling that their job is secured and accommodation also secured when such is lacking, it threatens their performance and work commitment. Peretomode (1991), observed that these needs are often met in the educational institution by granting teachers such programmes like fringe benefits, promotion, retirement or pension schemes, insurance benefits, welfare benefits, free medical and income service, job security and safe working conditions. If physiological and safety needs are satisfied, then the social needs emerges. Peretemode (1991) asserts social needs include the need for love, affection, companionship, acceptance and friendship, sense of belongness in ones relationship with others. He however noted that in school social needs of teachers varied (Perectemode, 1991).

## **III. STATEMENT OF THE PROBLEM**

It has been observed that secondary schools in Sokoto State are facing a decline in quality of teaching and general standard of education despite the level of government commitment, teacher competence, dedication and teachers' commitment in teaching are showing upward trends. This has been attributed to poor school organizational climate. For instance, most of the public secondary schools in the state seemed to have principals who either appear to put a non-challant attitudes towards the productivity of their teachers, or are more engaged in their private businesses which can bring direct gratifications to them than their administrative duties or they are inconsiderate and autocratic in dealing with their staff. This situation may jeopardize effectiveness of teachers who are under their supervision. It is equally observed that some teachers do not attend to their lessons regularly; some sleep in the staff room or engage in petty trading during school hours, some even engage students to work in their farms Furthermore, it has also been observed by the researcher that, despite those numerous challenges raised above, some schools are advantageous than others when it comes to overall school climate. The school climate of one institution varied from another simply because the factors contributing to it are not exactly the same in all schools. This is coupled with general belief that one of the major factors responsible for fallen standard of education is poor organizational climate in schools. Given this predicament and realizing the importance of school climate to secondary schools and teachers, others feel that organizational climate is a major factor behind success in teacher competence. Thus, the main thrust of this study therefore was to examine the relationship between teacher competence and school climate in Sokoto state senior secondary schools in relation to student academic performance.

#### **Research Questions**

- 1. Is there any relationship between teacher competence and students' academic performance?
- 2. Is there any relationship between school climate and students' academic performance?

#### **Research Objectives**

- 1. To find out if there is any relationship between teacher competence and students' academic performance
- 2. To find out if there is any relationship between school climate and students' academic performance

## **Research Hypothesis**

- 1. There is no significant relationship between teacher competence and students' academic performance
- 2. There is no significant relationship between school climate and student's academic performance

## Significance of the Study

The study is significant to the government, ministry of education and policy makers since it will make them more aware of the need for a conducive environment in schools that can be of benefit to both teachers and students in order to enhance teaching and learning process for the attainment of educational objectives.

The study is of significance to teachers who are the most important in- school factor in students' achievement. They have to be aware of their responsibility to the government, principals, students, colleagues, parents and the entire community at large, because if the teacher fail his complex and most important role as an instructor or educator, the whole foundation of the teaching and learning process could collapse.

#### Scope and Delimitation of the Study

This study was delimited to only public senior secondary school students in Sokoto State, the study considered only twelve (12) public senior secondary schools, and focused only on senior secondary school students II, within the state. The choice of the sample was based on maturity and experience, since the sampled students have been in the system for a long period of time.

## IV. RESEARCH METHODOLOGY

The research design adopted for this study was correlational research design, under the descriptive survey method that is concerned with determining or measuring the degree of relationship between two or more variables for making predictions about relationship.

The population of the study is all the public senior secondary school students in Sokoto State. There are eighty (80) public senior secondary schools in Sokoto State, with a total population of eighty five thousand six hundred and forty (85,640) students, and twenty two thousand, one hundred and seventy five (22,175) as the total population of SS II students.S

Table 1: Distribution of Population by Educational Zones								
Education Zones	No of schools	Total population of SS II						
Sokoto South	19	8,252						
Sokoto North	16	4,139						
Bodinga	9	2,415						
Yabo	11	2,055						
Goranyo	14	2,452						
Gwadabawa	11	1,723						
Total	80	22,175						

Table 1: Distribution of Population by Educational Zones

#### Source: Field work 2014

A total number of twelve (12) public senior secondary schools, with three thousand four hundred and twenty eight (3,428) as the population of the SS II students, are purposively selected within the six educational zones, to represent the total population of senior secondary school students in Sokoto State. A sample of three hundred and seventy nine (379) respondents was selected using krejcie and Morgan (1971) table for determining sample size. Subsequently, a proportionate selection of respondents was carried out in each of the selected

school, The instruments used for collecting data for this study were: qualitative instruments which include focus group discussion guide, measure of academic performance, and quantitative instrument a self designed questionnaire, titled "Students Questionnaire on Teacher competence and school climate on students academic performance, both the instruments were validated by the supervisory team and some experts within and outside the faculty of education and extension services.

The 20 item questionnaire was validated by the supervisory team and the reliability was obtained by pilot testing conducted in five secondary schools within Sokoto metropolis with a representative sample of sixty (60) students, whom are not part of the sample of the research. After, administering, scoring using Pearson Product Moment Correlation co-efficient, a reliability co- efficient Alpha level 0.83 was obtained. Regarding the validity of the qualitative research instrument (Focus Group Discussion), this depend on the research's point of view and discretion bearing in mind that this study relates to the extent at which the results of the study reflects the problem he/she sought to explore and understand, while the validity of the forty (20) self designed items for the achievement tests was obtained by scrutiny, screening and corrections of the tests items by English and Mathematics teachers in secondary schools who happen to be experts in the subjects. However, the reliability of the focus group discussion (FGDs) guide became apparent after thorough vetting by the research supervisors. To obtain reliability of the achievement test, a test retest was conducted in five Secondary Schools within the metropolis with a representative sample of sixty (60) students used. The data were collected through personal visitations to the areas of study by the researcher where the three already mentioned instruments were administered.

## Method of Data Analysis

The data obtained in this study were statistically analyzed to determine the relationship between teacher competence, school climate and students' academic performance. The data treatment and analysis of the hypotheses were done using the Statistical Package for Social Sciences (SPSS) version 20.0.

Qualitatively, the analysis involved detailed description of data that was collected through Focus Group Discussion (FGDs), the data were transcribed into writing. The researcher gave a detailed description through analyzing by coding and classifying the data that were contained in responses. Thus, a thematic data analysis was employed to identify and analyze pattern themes and sub-themes within the data.

The quantitative data collected was analyzed using Pearson Product Moment Correlation Co-efficient, hypotheses 1 and 2, were analyzed using Pearson Product Moment Correlation Co-efficient.

## **Quantitative Data Presentation and Analysis**

The descriptive statistics of the findings of the study were presented in tables.

 $H0_1$  There is no significant relationship between teacher competence and student's academic performance. The hypothesis was tested by subjecting the scores on teacher competence and students' academic performance to Pearson's correlation analysis as shown in table 21.

1 a	one 1. Relationship bet	ween re		simperence and	1 Students	Acaucin	ic i ci ioi mane
	Variables	Ν	Mean	Std. Deviation	r-Cal	p-Value	Decision
	Teacher Competence	379	8.45	.888	300	.000	H <sub>0</sub> Rejected
	Academic Performance	379	17.47	4.68			

Table 1: Relationship between Teacher Competence and Students' Academic Performance.

From the result of table 1, teacher competence and students' academic performance though negatively related were significant, Pearson's r(377) = -.300, p = .000. This indicates a significant relationship between teacher competence and students' academic performance because the p-value is less than the .05 level of significance. Therefore, H01 which states that there is no significant relationship between teacher competence and students' academic performance was rejected.

H02 There is no significant relationship between school climate and student's academic performance.

The hypothesis was tested by subjecting the scores on school climate and students' academic performance to Pearson's correlation analysis as shown in table 22.

T	able 2: Relationshi	p bet	ween S	School	Clim	ate and	Studen	ts' Aca	demic Po	erformance	•

Variables	N	Mean	Std. Deviation	r-Cal	p- Value	Decision
School Climate	379	9.49	.824	.880	.003	H <sub>0</sub>
Academic Performance	379	17.47	4.68			Rejected

From the result of table 22, school climate and students' academic performance was negatively related and not significant, Pearson's r(377) = ..880, p = .003. This indicates a significant relationship between school climate and students' academic performance because the p-value is less than the .05 level of significance.

Therefore,  $HO_6$  which states that there is no significant relationship between school climate and students' academic performance was rejected.

## **Research Question one**

## V. QUALITATIVE PRESENTATION

#### Relationship between teacher competence and student's academic performance

Competence can be approached either in terms of outcomes or in terms of inputs believed to contribute to positive outcome. Outcome-based indices of teacher competence are such things as increased test scores, or a harmonious classroom where students seem happy, engaged and well-behaved. Academic performance has the widespread belief that it has the most validity in indicating whether an educational institution or its teachers are excellent. One outcome indicator of teacher competence which has high psychometric advantage but which is rarely used in evaluating teachers is to ask students what they think about their teachers. It have been found that competence evaluations that rely heavily on elementary or secondary students' opinions are much likely to result in false "positive" that is labeling a competent teacher as incompetent, but there is an understandable general reluctance to acknowledge that children can or should be allowed to evaluate adults. While generally in favor of student ratings, it could be pointed out that these are most valid when they truly have an outcome focus, as it is easy for them to be hijacked by an input emphasis.

Respondent one, explained that:

Majority of the teachers come to class late and also teach without using teaching aids which will help them demonstrate the lesson effectively, they teach while citing examples verbally to students, whereas some students don't even know what the teacher is referring to. Because they have not seen it before, and if a student ask what is it, the teacher will only say we don't have it in this school. So how can they blame a student when he fails the exam? (Student, aged 17, Govt. day sec. sch. Kofar Rini. 20-12-14).

The above responses reveals that, there is lack of punctuality, absence of teaching aids and effective demonstration of the lesson. It is common practice in our public school that a teacher should be late to class, this is as a result of lack of supervision from the education authority which make the teachers to be reluctant to their job, and even if the teachers attend to their classes many does not have the culture of using teaching aids which are objects that carry teaching messages and foster the process of understanding the content of the lesson by the students during the process of teaching and learning. They are the objects or materials that facilitate learning and make it more lively and meaningful.

## **Research Question Two**

#### Relationship between school climate and student's academic performance

School climate is the social interactions in the school between the teachers and students and administrators. It also encompasses aspects such as respect, caring, support and dependence, shared decision making, good communication, equal opportunities for student's participation and community- school relationship.

Respondent two, stated that:

The school system these days is more challenging because most of the teachers, students and school authority use to sustain the system through improvisation. Education authority is not providing all the necessary facilities that are required in the school for teaching and learning. The students sometimes haves to come with it from home (Student, SS II, aged 17, Govt. girls memorial sec. sch. Illela. 30-12-14).

The information indicated that the school did not have adequate facilities for teaching and learning. Thus, the provision of all these facilities lies on the shoulder of the education authority, and these facilities are pre-requisite for students' commitment to learning and also enhances good academic performance.

#### Summary of the major findings

- 1. Teacher competence has relationship with students' academic performance. This implies that teacher composure, good knowledge of subject matter and teacher/student relationship enhances academic performance.
- 2. School climate has relationship with students' academic performance. This implies that conducive environment, teaching and learning facilities enhances academic performance.

## VI. DISCUSSION

The finding on hypothesis one (Ho<sub>1</sub>), led to the rejection of the statement that there is no significant relationship between teacher competence and students academic performance. From the result of table 1, teacher competence and students' academic performance though negatively related were significant, Pearson's r (377) = -.300, p = .000. This indicates a significant relationship between teacher competence and students' academic

performance because the p-value is less than the .05 level of significance. Therefore, H01 which states that there is no significant relationship between teacher competence and students' academic performance was rejected. In order to illustrate the notion that teacher is the most influential factor affecting student achievement, Paul Wright, Sandra Horn, and William Sanders (1997) cited in Marzona, Marzona and Pickering (2003) conducted a study involving 60,000 students, the result of the study shows that the most important factor affecting students learning is the teacher. In addition the result of the findings reveals wide variation in effectiveness among teachers. The immediate and clear implication of this finding is that more can be done to improve education by proving the effectiveness of teachers than by any other single factor. Effective teachers appear to be effective with students of all achievement level regardless of the levels of heterogeneity in their classes. If the teacher is ineffective, student under that teachers' tutelage will achieve inadequate progress academically, regardless of how similar or different they are regarding academic achievement.

The finding on hypothesis six (Ho2), led to the rejection of the statement that there is no significant relationship between school climate and students academic performance. From the result of table 18, school climate and students' academic performance was negatively related and not significant, Pearson's r(377) = ...880, p = ...003. This indicates a significant relationship between teacher competence and students' academic performance because the p-value is less than the .05 level of significance. Therefore, H02 which states that there is no significant relationship between teacher competence and students' academic performance was rejected.

Tshabalala and Ncube (2014) examined the role played by school climate in promoting school effectiveness in Zimbabwen Secondary Schools using a sample of 200 teachers from a population of 650 teachers in Nkayi South Circuit in Matebele Land North of Western Zimbabwe. The sample consist of 110 females and 90 males, the survey research design was employed and questionnaire is the research instrument used to collect data. The findings of the study revealed that there was a very high correlation between a positive school climate and school's high pass-rate standards. The findings also revealed that poor results were closely linked to a negative school climate. The study recommends school heads should create a conducive school climate to enhance the effectiveness of their schools.

#### VII. CONCLUSION

Based on the data collected, analyzed and interpreted, as well as the findings, it can be concluded from the study that:

- 1. Teacher competence also goes a long way in determining high students' academic performance in our public secondary schools. This implies that teacher composure, good knowledge of subject matter and teacher/student relationship enhances academic performance.
- 2. A positive school climate enhances good academic performance; which include school culture, classroom ecology, school physical plant and school administration. That provide conducive and enabling environment for teaching and learning activities, which enhances academic performance.

#### RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made:

1, Government should look at how programme developers, university researchers, and national and international agencies can directly conduct carefully constructed studies to create and support teacher professional competence within the school and ascertain their impact on providing good academic performance in our schools.

2, Policy makers should become aware of school climate research and the importance of positive school climate and encourage teachers' preparation programmes that give teachers and administrators the tools to evaluate classroom and school climate, and take steps to use these findings to promote a climate for learning in schools.

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