



TEACHERS' ENGAGEMENT STRATEGIES AS PREDICTORS OF STUDENTS' ACADEMIC ACHIEVEMENT IN PUBLIC SECONDARY SCHOOLS IN ANAMBRA STATE

¹Ekebuike, F. N., ²Ughamadu, U. & ³Ohamobi, I. N.

^{1,2&3}Department of Educational Foundations Faculty of Education, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus

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Abstract

The study examined teachers' engagement strategies as predictors of students' academic achievement in public secondary schools in Anambra State. Two research questions guided the study and two null hypotheses were tested at 0.05 level of significance. The study was a correlational research design. The population of the study consisted of 24,933 SS2 students in 267 public secondary schools in the six education zones in Anambra State. The sample of 1,247 SS2 students was used for the study. Multistage sampling procedure comprising proportionate stratified and simple random sampling techniques were used for the study. The instrument 'Teachers' Engagement Strategies Questionnaire (TESQ)' was used for data collection, while Students' Academic Achievement Scores (SAAS) were used to measure students' academic achievement for this study. The instrument (TESQ) was subjected to face and construct validation. Face validation was done by three experts. The reliability of the instrument was determined using the Cronbach Alpha technique and the average coefficient value of 0.83 for TESQ was obtained and considered highly reliable and suitable for the study. Simple linear regression statistical tool was used to answer the research questions and test the null hypotheses at 0.05 level of significance. The findings of the study revealed that teacher-student classroom interaction and communication skills have a high positive and significant prediction on students' academic achievement in public secondary schools in Anambra State. The study concluded that teachers' engagement strategies are positive and significant predictors of students' academic achievement in public secondary schools in Anambra State. Based on the findings, the study recommended that public secondary school teachers should build stronger classroom relationships with their students by showing a genuine care for their students' well-being. This will create a more supportive and trusting learning environment. This emotional connection between teacher and student is a critical factor for academic engagement and success.

Keywords: Teachers' Engagement Strategies, Students' Academic Achievement

1.1 Introduction

The desire for a high level of academic achievement puts a lot of pressure on students, teachers and schools and in general, the education system itself. In fact, it appears as if the whole education revolves around the academic achievement of students, though various outcomes are also expected from the system. Thus, a lot of time and effort of schools is used to help students do better in their scholastic endeavours. Thus, teachers play a vital role in shaping and helping

students to perform better academically. Teachers cannot be disassociated from the schools they teach and the academic output of schools. It would therefore be logical to use the standardized students' assessment results as the basis for judging the achievement of teachers. Thus, teachers have an important influence on students' academic achievement.

Academic achievement is a critical aspect of students' development and an essential factor in determining future success in higher education and career prospects. Academic achievement is an important aspect of education, as it serves as an indicator of the quality of education that students receive and their potential for success in their future careers. Adinna et al. (2025) defined academic achievement as a broad concept that refers to the level of achievement attained by students in their educational pursuits. It can be measured through various means such as grades, test scores, participation in extracurricular activities and attendance. Ohamobi et al. (2022) referred to academic achievement as the ability of students to demonstrate knowledge and skills acquired through various learning processes, including formal education. Academic achievement is often measured using standardized assessments, course grades, and other metrics.

Academic achievement represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college, and university. School systems mostly define cognitive goals that either apply across multiple subject areas (example, critical thinking) or include the acquisition of knowledge and understanding in a specific intellectual domain (example, numeracy, literacy, science, history). Okeke and Adinna (2025) noted that academic achievement is generally used to determine how well students are able to assimilate, retain, recall and communicate their knowledge of what has been learnt. Ughamdu et al. (2025) asserted that academic achievement is the demonstrated performance of learning as opposed to the potential for learning.

Teachers put in efforts by exposing students to appropriate pedagogical experiences to ensure that they are motivated to obtain good grades. Students should, therefore, be actively involved to complement the efforts of teachers to perform maximally and achieve good grades. Good grades depict good academic achievement, which is the desire of every purpose-driven student. Good academic achievement, therefore, benefits the students and promotes the image of the school that trains them. Even though good academic achievement is the desire of purpose-driven students, some of them still perform poorly in their examinations and tests. For instance, Amaonye et al. (2022) reported a high repetition rate in public secondary schools in Anambra State, which is an indicator of poor academic achievement among students. Many factors could account for poor academic achievement among students and such factors, according to Asiegbu et al. (2022), include spending much time on social media; students' self-efficacy and academic motivation. Chikendu (2023) listed individual characteristics, environmental factors and educational practices as factors that affect the academic achievement of students.

Contextually, students' academic achievement is how the students deal with their studies through their abilities to learn and how they accomplish different tasks or assignments given to them by their teachers in the classroom or outside of their classroom that resulted in excellent

performance. A student who always attends classes, contributes his/her quota during teaching learning process, is well-disciplined, does the assignments given by the teacher and dedicates time to reading would be successful in the examination attempted. However, teachers developing good engagement strategies with students in the classroom may lead to positive student academic achievement. It involves creating a positive learning environment, maintaining discipline and order, and promoting students' engagement and learning. Effective engagement strategies by teachers are an essential element in ensuring the success of any school.

Teachers' engagement strategies convey the idea that classroom management involves a series of ongoing activities that teachers employ to stabilize the activities in the classroom during the lessons delivery. Mbonu et al. (2023) submitted that teachers' engagement strategies are carefully crafted plans and actions that outline the specific tactics and activities to be implemented in order to effectively engage with the students in the classroom for effective learning. Mbonu et al. mentioned teachers' engagement strategies as class interaction, mentoring, arrangement, communication and reinforcement. Teachers' engagement strategies involve understanding the needs, preferences and behaviours of students to create tailored experiences that resonate with them in the classroom. Shaibu et al. (2024) opined that teachers' engagement strategies encourage teachers to create an emotional bond with their students in the school. Shaibu et al. further noted that teachers' engagement strategies include classroom interaction, teacher-student relationship, class communication, class arrangement and class mentoring among others. Essentially, engagement strategies that teachers apply in the classroom explain the way teachers are going to keep their students engaged and promote a positive connection between them in the school.

Teachers' engagement strategies entail all the activities that are highly necessary not only to create but also to maintain a supportive and orderly atmosphere. Itanka (2023) opted that teachers' engagement strategies include planning and preparation of teaching and learning materials, organization of the materials, decoration of the classroom, creation of expectation and establishment and enforcement of rules and routines in the classroom. Itanka added that teachers' use of instructional materials, class arrangement, teacher-student classroom interaction, class mentoring and classroom communication skills of teachers are teachers' engagement strategies. In the view of Mbanugo et al. (2024), teachers' engagement strategies are the process of efficiently and effectively organizing the classroom so that learning objectives can be achieved. Mbanugo et al. noted that teachers' communication skills, class mentoring, teacher-student classroom interaction, class arrangement, teachers' use of instructional materials and classroom reinforcement are teachers' engagement strategies. Okaforcha et al. (2025) noted that organizing the classroom efficiently and effectively through evolving good classroom practices, learning experiences become more task-oriented, predictable and therefore lead students to learning in their highest potentials and even exceeding set standards.

Contextually, teachers' engagement strategies refer to the plan and approach that teachers use to motivate, boost and stimulate the interest, involvement and loyalty of their students in the classroom. It involves creating meaningful and impactful interactions to build a strong relationship with students in the process of teaching and learning in the classroom. By implementing well-

defined engagement strategies in the classroom, teachers can establish a two-way communication channel to understand their students' needs and preferences better. In this study, teachers' engagement strategies were delimited to teacher-student classroom interaction and teachers' communication skills.

Teacher-student classroom interaction occurs in the learning process involving teachers and students in the classroom. Classroom interaction is about class interaction as a two-way process between teachers and students in the learning process in the classroom. Anakwue et al. (2024) stated that interaction involving teachers and students in the classroom has the potential for positive cooperation or conflict. This happens because of the collaboration between the two parties, teachers and students. Communication can take place properly and effectively so that the learning process occurs. Classroom interaction is an important part of the teaching and learning process. Ughamadu et al. (2025) noted that it is in the classroom that the mindset is set, attitudes will be formed, and process participation can affect students' confidence in learning. Thus, teachers and students must build interactions well to create a good learning process. Moreover, Obikeze and Ezeanowai (2025) stated that the essence of interaction is communication, where communication is all about everything. Okaforcha and Aniefuna-Mokwugwo (2025) maintained that classroom interactions include class behaviour such as taking turns, questions and answers, negotiation and feedback. Based on the description, it can be concluded that classroom interactions that occur in the learning process involving teachers and students have reciprocity in the teaching and learning process in the classroom. Good teacher-student classroom interaction is a good engagement strategy between students and teachers in the classroom, especially with good teachers' communication skills.

Communication is usually done for a purpose. Asiegbu et al. (2022) opted that the purpose of conversation is to create and maintain social relations, negotiating the status and role of society, and deciding or carrying out joint actions in the teaching and learning process in schools. Obi et al. (2025) asserted that teachers' communication skills are abilities that enable the exchange of information, ideas and feelings through verbal, non-verbal, and written methods. These skills include active listening, empathy, clarity, and conciseness, and are vital for effective interpersonal relationships and professional success. Onu and Ogbuanya (2025) noted that developing strong communication skills helps individuals connect with others, build rapport and convey their messages clearly and appropriately in various settings like meetings and face-to-face conversations. Ohamobi et al. (2025) opined that teachers' communication skills are essential tools that empower them to express ideas, share information and interact effectively with others. In a classroom interaction situation, students and teachers interact with each other and communicate, gathering for the purpose of learning. Onyekwelu (2025b) maintained that effective teacher communication involves strong listening, speaking, reading, and writing skills, which are essential for clear instruction and classroom management. Key skills include active listening, providing constructive and clear feedback, adapting to different learners, and using verbal and non-verbal cues to build a positive and supportive classroom environment. Thus, the way teachers monitor, control and motivate students in the classroom would determine their level of academic achievement.

The fluctuating rate of academic achievement of students in English Language and Mathematics in public secondary schools in Anambra State is becoming more worrisome than envisaged. The abysmal academic achievement of students in the West African Examinations Council (WAEC) and the National Examinations Council (NECO) is alarming, and one begins to wonder if teachers possess the quality and apply proper engagement strategies in managing students in the classroom. Evidence from the report of the WAEC chief examiner's report (2023) showed that students' academic achievement in English Language and Mathematics in WAEC reduced by 8 percent between 2021 and 2023, while students' academic achievement in English Language and Mathematics in NECO was reduced by 12 percent between 2021 and 2023.

The fluctuating achievement of some students often experienced in some public secondary schools in Anambra State might be attributed not only to teachers' engagement strategies but also to their and classroom management practices. Onyejekwe et al. (2025) suspected that this unsatisfactory academic achievement of students might be attributed to teachers' lack of requisite competencies, especially in the area of classroom management. Teachers' deficiency in good classroom management practices manifests in students' disruptive behaviours such as noise making, sleeping in class, irrelevant discussions, lack of interest in lessons, all these has led to poor learning, which negatively affects their achievement in tests and exams. Adinna and Anene (2024) opted that poor academic achievement of some students has been shifted to the classroom teachers for their practical method of managing instruction and behaviour of students in the classroom for quality teaching and learning. Teachers, on the other hand, complain of students' inattentiveness, disruptive behaviour, and lack of cooperation during classroom lessons on one hand and the challenges they face in managing their demanding classes that are most times over populated and lack sufficient learning and teaching aids, which are all obstacles to effective classroom instruction for quality teaching and learning. This, however, necessitated the researcher to carry out an analytic examination of teachers' engagement strategies as predictors of students' academic achievement in public secondary schools in Anambra State.

1.2 Purpose of the Study

The main purpose of the study is to examine teachers' engagement strategies as predictors of students' academic achievement in public secondary schools in Anambra State. Specifically, the study sought to:

1. examine the predictive value of teacher-student classroom interaction on students' academic achievement in public secondary schools in Anambra State.
2. ascertain the predictive value of teachers' communication skill on students' academic achievement in public secondary schools in Anambra State.

1.3 Research Questions

The following research questions guided the study:

1. What is the predictive value of teacher-student classroom interaction on students' academic achievement in public secondary schools in Anambra State?
2. What is the predictive value of teachers' communication skill strategy on students'

academic achievement in public secondary schools in Anambra State?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. Teacher-student classroom interaction is not a significant predictor of students' academic achievement in public secondary schools in Anambra State.
2. Teachers' communication skill strategy is not a significant predictor of students' academic achievement in public secondary schools in Anambra State.

2. Research Method

The study was carried out in public secondary schools in Anambra State. Two research questions guided the study and two null hypotheses were tested at 0.05 level of significance. The study was a correlational research design. The population of the study consisted of 24,933 SS2 students comprising 11,359 males and 13,574 females in 267 public secondary schools in the six education zones in Anambra State. The sample of 1,247 SS2 students was used for the study. Multistage sampling procedure comprising proportionate stratified and simple random sampling techniques were used for the study. The instrument 'Teachers' Engagement Strategies Questionnaire (TESQ)' was used for data collection while Students' Academic Achievement Scores (SAAS) of SS2 students was used to measure students' academic achievement using their termly mathematics scores for 2024-2025 Academic Session. The instrument (TESQ) was subjected to face and construct validation. Face validation was done by three experts while construct validation was carried out with Principal Component Analysis approach using SPSS vol.26 and the results showed that the construct validity was met. The reliability of the instrument was done using Cronbach Alpha technique and the average coefficient value of 0.83 for TESQ was obtained and considered highly reliable and suitable for the study. Out of 1,247 copies of the instrument administered, 935 copies representing 75% of the instrument were correctly completed and returned. Simple linear regression statistical tool was used to answer the research questions and test the null hypotheses at 0.05 level of significance.

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3. Results

Research Question One: What is the predictive value of teacher-student classroom interaction on students' academic achievement in public secondary schools in Anambra State?

Table 1: Summary of simple regression analysis on the predictive value of teacher-student classroom interaction on students' academic achievement in public secondary schools in Anambra State

	Unstandardized β		Std. Dev. β	Standardized β
Constant		33.512		4.116
teacher-student classroom interaction		0.691		0.285
R	0.648			
R ²	0.609			
Adj. R ²	0.576			

The summary of the simple regression analysis as shown in Table 1 indicated that the regression line has a positive intercept as presented by the constant value of 33.512. This means that if all the variables are held constant or fixed (zero) at the expense of teacher-student classroom interaction, students' academic achievement will be valued at 34%. The analysis showed that teacher-student classroom interaction positively predict students' academic achievement in public secondary schools in Anambra State as shown by the regression coefficient ($R = 0.648$). Additionally, the standardized beta is also values at $\beta = 0.648$ which revealed that teacher-student classroom interaction is a positive predictor of students' academic achievement in public secondary schools in Anambra State. This implies that a unit rise in teacher-student classroom interaction led to 0.648(65%) rise in students' academic achievement in public secondary schools in Anambra State. The coefficient of determination (R^2) value of 0.609 indicated that the explanatory power of the variable was highly strong. This implies that 61% of the variations in students' academic achievement in public secondary schools in Anambra State were accounted for by the variations in teacher-student classroom interaction. The adjusted R^2 supported the claim of the R^2 with a value of 0.576 indicating that 58% of the total variation in students' academic achievement was explained by teacher-student classroom interaction. Thus, adjusted R^2 supports the statement that the explanatory power of students' academic achievement highly depends on teacher-student classroom interaction in public secondary schools in Anambra State.

Research Question Two: What is the predictive value of teachers' communication skills on students' academic achievement in public secondary schools in Anambra State?

Table 2: Summary of simple regression analysis on the predictive value of teachers' communication skills on students' academic achievement in public secondary schools in Anambra State

	Unstandardized β	Std. Dev. β	Standardized β
Constant	34.882	3.758	
teachers' communication skills	0.701	0.226	0.678
R	0.678		
R ²	0.621		
Adj. R ²	0.582		

The summary of the simple regression analysis as shown in Table 2 indicated that the regression line has a positive intercept as presented by the constant value of 34.882. This means that if all the variables are held constant or fixed (zero) at the expense of teachers' communication skills, students' academic achievement will be valued at 35%. The analysis showed that teachers' communication skills positively predict students' academic achievement in public secondary schools in Anambra State as shown by the regression coefficient ($R = 0.678$). Furthermore, the standardized beta is also values at $\beta = 0.678$ which revealed that the application of teachers' communication skills is a positive predictor of students' academic achievement in public secondary schools in Anambra State. This implies that a unit increase in teachers' communication skills led to 0.678(68%) increase in students' academic performance in public secondary schools in Anambra State. The coefficient of determination (R^2) value of 0.621 indicated that the explanatory power of the variable was highly strong. This implies that 62% of the variations in students' academic achievement in public secondary schools in Anambra State were accounted for by the variations in teachers' communication skills. The adjusted R^2 supported the claim of the R^2 with a value of 0.582 indicating that 58% of the total variation in students' academic achievement was explained by teachers' communication skills. Thus, adjusted R^2 supports the statement that the explanatory power of students' academic achievement highly depends on teachers' communication skills in public secondary schools in Anambra State.

Test of Hypotheses

H₀₁: Teacher-student classroom interaction does not significantly predict students' academic achievement in public secondary schools in Anambra State.

Table 3: Test of significance on the simple regression analysis on significant predication of teacher-student classroom interaction on students' academic achievement in public secondary schools in Anambra State

	Unstandardize d <i>B</i>	Std. Dev. <i>B</i>	Standardize d <i>β</i>	t- value	p- value
Constant	33.512	4.116		27.531	0.000
teacher-student interaction	0.691	0.275	0.648	24.832	0.000
R	0.648				
R ²	0.609				
Adj. R ²	0.576				
F	42.584				0.000

The summary of the test of significance of simple regression analysis as shown in Table 8 showed that the simple regression coefficient (R) is 0.648 while the R² is 0.609 and Adjust R² is 0.576. The F-ratio associated with regression is 42.584, the t-test is 24.832 and the p-value = 0.000. Since p-value (0.000) is less than the specified level of significance 0.05, the study therefore rejected the null hypothesis that teacher-student classroom interaction does not significantly predict students' academic achievement in public secondary schools in Anambra State and accepted the alternative hypothesis that teacher-student classroom interaction significantly predicts students' academic achievement in public secondary schools in Anambra State.

H₀₂: Teachers' communication skills do not significantly predict students' academic achievement in public secondary schools in Anambra State.

Table 4: Test of significance on the simple regression analysis on significant predication of teachers' communication skills on students' academic achievement in public secondary schools in Anambra State

	Unstandardize d β	Std. Dev. <i>B</i>	Standardize d β	t- value	p- value
Constant	28.478	5.641		24.683	0.000
teachers' communication skills	0.554	0.328	0.524	20.841	0.000
R	0.524				
R ²	0.448				
Adj. R ²	0.407				
F	35.125				0.000

The summary of the test of significance of simple regression analysis as shown in Table 9 showed that the simple regression coefficient (R) is 0.524 while the R² is 0.448 and Adjust R² is 0.407. The F-ratio associated with regression is 35.125, the t-test is 20.841 and the P-value = 0.000. Since p-value (0.000) is less than the specified level of significance 0.05, the study therefore rejected the null hypothesis that teachers' communication skills does not significantly predict students' academic achievement in public secondary schools in Anambra State and accepted the alternative hypothesis that teachers' communication skills significantly predicts students' academic achievement in public secondary schools in Anambra State.

4. Discussion of Findings

Findings on the predictive value of teacher-student classroom interaction on students' academic achievement in public secondary schools in Anambra State revealed that teacher-student classroom interaction has a high positive predictive value of 0.648(65%) on students' academic achievement in public secondary schools in Anambra State. This means that improvement in teacher-student classroom interaction will bring about 65% improvements in students' academic achievement in public secondary schools in Anambra State. The study also showed that teacher-student classroom interaction significantly predicted students' academic achievement in public secondary schools in Anambra State. The positive and significant findings are due to the fact that teacher-student classroom interaction is crucial for academic and social-emotional development, leading to higher achievement, increased motivation, and better behaviour. The finding is in consonance with those of Ferdinand and Andala (2024), who found that strong teacher-student

relationships are linked to higher academic achievement and fewer disciplinary issues. Okaforcha and Aniefuna-Mokwugwo's (2025) findings showed that classroom interaction makes students more active participants in the learning process, rather than passive recipients of information. In the findings of Ughamadu et al. (2025), a caring and well-structured environment, fostered through positive classroom interaction, is associated with better students' behaviour. Thus, teachers who show care and respect for individual students' interests can bolster their feelings of competence, autonomy, and relatedness. Similarly, the findings of Oguejiofor and Obigwe (2025) affirmed that teachers who are not rigid and adopt a friendly approach help students better understand concepts and reduce stress. Obikeze and Ezeanowai (2025) found that classroom interaction is a key tool for improving both language and social skills, allowing students to practice communication in real time. The similarities found in these studies result from the fact that positive classroom interactions build students' confidence and make them feel more secure in their studies. It fosters a more supportive learning environment by boosting students' confidence, engagement and self-efficacy, while also helping students develop essential communication skills.

Findings on the predictive value of teachers' communication skills on students' academic achievement in public secondary schools in Anambra State revealed that teachers' communication skills have a high positive predictive value of 0.678(68%) on students' academic achievement in public secondary schools in Anambra State. This means that a rise in teachers' communication skills will bring about 68% rises in students' academic achievement in public secondary schools in Anambra State. The study also showed that teachers' communication skills significantly predicted students' academic achievement in public secondary schools in Anambra State. The positive and significant findings are due to the fact that teachers' communication skills are crucial for fostering a positive learning environment, which directly impacts student success both academically and personally. The finding is in line with those of Onu and Ogbuanya (2024), who found that effective communication enables teachers to spot problems and understand individual student needs, enabling them to adapt their teaching methods. The finding aligns with Onyejekwe et al. (2025), who found that good communication fosters mutual respect and rapport, leading to a more engaging and supportive learning environment. Obi et al. (2025) found that clear explanations from teachers to students lead to better understanding and higher grades, while effective communication can also motivate students to work harder. The finding is also in line with Onyekwelu's (2025b) findings that a classroom with effective communication is more pleasant and safe, encouraging students to ask questions and seek help when needed. Similarly, Ohamobi et al. (2025) found that students learn to express themselves better and develop confidence in their communication as a result of their teachers' strong classroom communication skills, which is valuable in school and society. The similarities found in these studies result from the fact that they were all carried out in the same location. However, the studies generally find that effective communication enhances students' comprehension, motivation, and confidence, while also building stronger relationships with students, parents, and colleagues. Without them, learning can be hindered, and students' achievement can suffer.

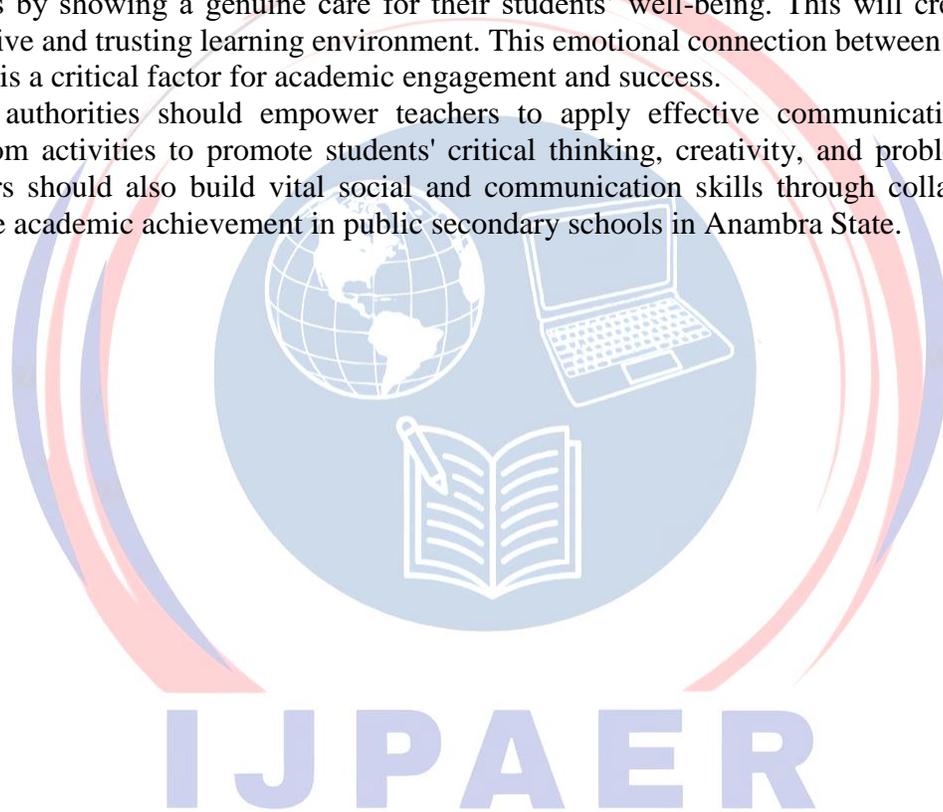
5. Conclusion

From the results of this study, teachers' engagement strategies are driving forces that determine the academic achievement of students. Hence, the study concluded that teachers' engagement strategies are positive and significant predictors of students' academic achievement in public secondary schools in Anambra State.

6. Recommendations

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

1. Public secondary school teachers should build stronger classroom relationships with their students by showing a genuine care for their students' well-being. This will create a more supportive and trusting learning environment. This emotional connection between teacher and student is a critical factor for academic engagement and success.
2. School authorities should empower teachers to apply effective communication in their classroom activities to promote students' critical thinking, creativity, and problem-solving. Teachers should also build vital social and communication skills through collaboration to improve academic achievement in public secondary schools in Anambra State.



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