

Teachers ' Teaching Style and the Academic Outcomes of Senior Secondary School Students in Eti-Osa Local Government Area of Lagos State

Uchenna Azuka-Obieke Ph.D¹, Uchenna Azuka-Obieke Ph.D²

¹Multisectoral Consulting, Nigeria

²3A Ben Okagbue Mba , Lekki Phase 1, Nigeria

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ABSTRACT

The study investigated the influence of teachers' teaching styles on the academic outcomes of senior secondary school students in Eti-Osa Local Government Area, Lagos State. It focused on three instructional approaches—lecture, discussion, and demonstration—as well as their combined effect on students' performance in English Language and Mathematics. A total of 150 Senior Secondary Two (SS2) students from selected public schools participated in the study. Data were collected using a structured questionnaire and achievement tests, and analyzed through descriptive statistics and Pearson's correlation coefficient at a 0.05 level of significance. Findings revealed that the lecture method moderately enhanced students' understanding and syllabus coverage, but limited active participation and critical thinking. The discussion method significantly improved comprehension, confidence, and participation, while the demonstration method enhanced retention and practical application of lessons. Importantly, the combined use of lecture, discussion, and demonstration methods had the strongest positive effect on academic outcomes, highlighting that integrating teacher-centred and learner-centred approaches caters to diverse learning preferences, sustains interest, and improves examination performance. The study concluded that effective teaching is most successful when multiple instructional strategies are employed, rather than relying on a single method. Consequently, it is recommended that teachers adopt a balanced mix of teaching styles, schools provide professional development for instructional strategies, the Lagos State Ministry of Education promotes learner-centred practices, and parents support active student engagement to optimize academic achievement.

Keywords: Teaching styles, Academic outcomes, Senior secondary students, Instructional methods

INTRODUCTION

Education is still a very potent tool for the socio-economic development of a nation, the personal growth of the individual, and the progress of society. On a global scale, the education sector is considered by nations as the cornerstone on which social, economic, and technological changes are grounded. It opens up the eyes of students to the knowledge, skills, and abilities of accessing difficult life situations and positively contributing to the progress of their societies. Within the scope of these broad frameworks, academic outcomes have become the criteria for measuring the quality and efficiency of the educational process. The academic outcomes observed in phonological test scores, examination results, and behavioral competencies portray students' cognitive growth and reveal to us how much quality and quantity in teaching and learning processes happen in schools (Isa et al. 2020).

One of the key factors that influences the academic performance of educational outputs is the teaching-learning style that the teachers decide to follow. The teacher is the centre of the whole educational system that functions due to him/her. His or her method of instruction is the model and procedure he or she uses while planning, showing, and providing learning experiences in the classroom (Audu, 2018). By and large, four major teaching styles have been acknowledged by the use of various literature in the education field: the lecture method, the

discussion method, the demonstration method, and the collaborative or group work method (Chukwuka & Pius, 2024).

The lecture method, which is among the historically first instructional strategies, is to a great extent a teacher-centred approach. In the process, the teacher is in the forefront as the main source of information, while students receive it passively. According to a study conducted by Jatau et al. (2021) in Kaduna State, discussion-based instruction significantly enhanced students' understanding and retention of biological concepts, implying that interaction improves comprehension and performance.

In the same way, the demonstration method also comprises processes that are shown or illustrated to the learners to help them understand the abstract or complex ideas. On the other hand, the group work or collaborative method concentrates only on the above-mentioned skills, i.e., teamwork, communication, and problem-solving.

Chukwuka and Pius (2024) revealed that the cooperative learning environment in the universities of the South-South Nigeria region had a positive impact on the students' performance and motivation; therefore, the significance of the learner-centred instruction is still being confirmed.

The evolution of teaching styles over the years has reflected broader educational paradigms, starting from behaviourism, which was all about memorization, to constructivism, which focuses on active knowledge construction. According to Wiangga (2024), learner-centred approaches are the most preferred methods of teaching as they promote creativity and deep learning. On the contrary, in Nigeria, most of the teachers still prefer traditional methods like lectures mainly because of the large class sizes, lack of resources, and inadequate professional training.

Teachers' teaching styles have a great importance that is not less valued. Both Khalid, Akhter, and Hashmi (2017), as well as Akinbobola (2015), have presented evidence on how the compatibility of teachers' pedagogical methods with students' learning preferences results in increased motivation, learning, and performance. Whereas, when teaching methods do not engage the learners' cognitive and affective domains, low performance and dissatisfaction with studies are usually the outcomes. Additionally, teaching style has a wider scope than academic grades only; it affects students' confidence, curiosity, and the desire for lifelong learning (Wiangga, 2024).

As the issue of inconsistent academic results among senior secondary school students in Lagos State continues, an empirical study on how teachers' teaching styles – lecture, discussion, demonstration, and collaborative methods – affect students' academic outcomes would be the next step. The insights from the investigation will be crucial for teacher training, curriculum reform, and classroom practice improvement in Nigeria's secondary education sector.

Statement of the Problem

Nigerian educational sector has expanded and reformed; however, issues concerning the quality of student performance at the senior secondary level have not been fully resolved. In the Eti-Osa Local Government Area of Lagos State, various internal and external examination reports have indicated that students' academic performance has changed over time. Teachers usually point out that students' attitudes or learning environments are the main reasons for inconsistency, but they don't seem to consider how teaching styles have brought about this problem.

From the perspective of educational inspectors in Lagos, it appears that a significant number of teachers depend greatly on lecture-based instruction to the point that students' participation and creativity are limited. The practice of teacher-centered methods can lead to rote learning, where students memorise instead of understanding (Oladipo, 2010). Contrarily, a few of the teachers who have implemented discussion, demonstration, and group work have reported that students have had better engagement and have been able to achieve a higher level (Jatau et al., 2021; Umoru & Haruna, 2018). Nevertheless, there are still no comprehensive studies, particularly in the context of Eti-Osa.

The variety of learners in the schools of Eti-Osa with different socio-economic backgrounds and learning habits calls for teaching methods that can accommodate these differences. The question is: do the learners' needs get met through the use of a "one-size-fits-all" model of instruction? The type of teaching the teacher would adopt can be the factor that helps students get a better understanding, participation, and overall performance. Indeed, the influence of instructional strategies on achievement has pretty much been established by several national and regional studies (Adeoye & Igbinedion, 2018), but there is still a lack of evidence on the Eti-Osa local area, which links teaching styles directly to students' academic outcomes.

Consequently, this research is attempting to fill that empirical gap by finding out the extent to which the faculty teaching styles, namely, lecture, demonstration, discussion, and collaborative methods, have affected the senior secondary school students' academic performance in the Eti-Osa Local Government Area of Lagos State.

Research Objectives

The main objective of this study is to examine the influence of teachers' teaching style on the academic outcomes of senior secondary school students in the Eti-Osa Local Government Area of Lagos State.

Specifically, the study seeks to:

1. Determine the influence of the lecture method on students' academic outcomes in Eti-Osa Local Government Area.
2. Examine the effect of the discussion method on students' academic outcomes in the area.
3. Assess the impact of the demonstration method on students' academic outcomes.
4. Investigate how the collaborative or group work method influences students' academic outcomes in the Eti-Osa Local Government Area.

Research Questions

The following research questions will guide the study:

1. How does the lecture method influence the academic outcomes of senior secondary school students in Eti-Osa Local Government Area, Lagos State?
2. In what ways does the discussion method affect the academic outcomes of senior secondary school students in Eti-Osa Local Government Area?
3. What is the impact of the demonstration method on the academic outcomes of senior secondary school students in Eti-Osa Local Government Area?
4. What is the combined influence of teachers' teaching styles (lecture, discussion, and demonstration) on the academic outcomes of senior secondary school students in Eti-Osa Local Government Area?

Research Hypotheses

The following null hypotheses will be tested in the study:

H₀₁: There is no significant relationship between the lecture method and the academic outcomes of senior secondary school students in Eti-Osa Local Government Area.

H₀₂: There is no significant relationship between the discussion method and the academic outcomes of senior secondary school students in Eti-Osa Local Government Area.

H₀₃: There is no significant relationship between the demonstration method and the academic outcomes of senior secondary school students in Eti-Osa Local Government Area.

H₀₄: There is no significant combined relationship between teachers' teaching styles (lecture, discussion, and demonstration) and the academic outcomes of senior secondary school students in Eti-Osa Local Government Area.

LITERATURE REVIEW

Conceptual Framework

The conceptual framework defines and explains the major concepts behind the study. It outlines the features of teaching style that make it different from other educational terminologies and also shows how different teaching styles affect the academic performance of students. The argument establishes a theoretical framework for the understanding of the correlation between teachers' instructional characteristics and students' learning in senior secondary schools.

Concept of Teaching Style

Teaching style points out the unique way that a teacher does the planning, organizing, and actual teaching of the class. It includes the teacher's learning idea, communication method, pattern of classroom management, and exchange of words with students. Isa et al. (2020) define teaching style as a core of one's traits and habits in the use of educational materials, strategies, and approaches to enhance the learning process and the accomplishment of the set objectives. Likewise, Audu (2018) considers teaching style as the particular mode through which the teacher presents the facts, engages the learner with enthusiasm, and organizes activities for the attainment of educational goals.

Dimensions of Teaching Style

This research revolves around the 4 most cited characteristics of the teacher's conduct in the classroom, namely: lecture, discussion, demonstration, and collaborative/group-work methods. The student's and teacher's interaction, through which the implementation of pedagogical orientations, benefits, and limitations takes place, is in turn, the performance of students' engagement and achievement.

(a) Lecture Method

The lecture method is still the most ancient and the most common instructional techniques among others. It is a teacher-centered approach in which the teacher, by his/her questions, explanations, and summaries, organizes and manages the theoretical part, while students are passive listeners and helpers by writing down and outlining the material. In their work, Oladipo et al. (2010) stress that the lecture method empowers the teacher to pack the content of a course spanning various topics in a short time and this is one of the reasons it is recommended for extensive syllabi.

(b) Discussion Method

The discussion method is a student-centred instructional style that entails the facilitation of conversations, the exchange of thoughts and the active participation of learners. It instills the principle that knowledge is co-constructed through the engagement of participants. Jatau et al. (2021) have reported that students of biology in Kaduna State who had been exposed to the concept learned through discussion achieved better conceptual understanding as well as exhibited a more positive attitude towards the subject than those who were taught through lecture. The method encourages discussion among learners to critically analyse, synthesize, and evaluate the information, thus deep comprehension and longer retention are brought about.

(c) Demonstration Method

The demonstration method combines the explanation with the demonstration of an idea or process. The

instructor shows the students how a certain procedure can be done, a problem can be solved, or a piece of equipment can be handled, making the students observe and copy the steps. In their study, Umoru and Haruna (2018) confirmed that the use of the demonstration method had a significant impact on students' understanding of accounting principles compared with the use of only lectures. The method helps to accommodate the theory and practice learners and to increase the learners' psychomotor skills by the use of the demonstration method.

Akinbobola (2015) concurs with the view that conceptual clarity, especially in science and technology subjects, is facilitated by demonstration when the abstract phenomena are practically figured out through the provision of example-based learning.

(d) Collaborative or Group-Work Method

Sometimes referred to as group-work or cooperative learning, collaborative learning is a learner-centred approach whereby students work in small groups to discuss topics, find solutions to problems, or generate collective outcomes. According to Chukwuka and Pius (2024), collaborative learning is an instructional mode that integrates the cognitive and social dimensions of education, thereby increasing students' engagement and accountability. Adeoye and Igbinedion (2018) revealed that business-studies students in Edo State who were imparted with collaborative techniques made better academic performance than those who were taught through traditional instruction.

Concept of Academic Outcomes

Academic outcomes are those indicators that can be measured, that show the students' achievements in school through the content delivery processes. They include cognitive abilities as well as achievements like grades, test scores, and examination results; besides them, they are also indicators of developmental achievements like learning, skill, attitude, and problem-solving abilities. Isa et al. (2020) termed academic outcomes as a visible indicator of students' knowledge and skills resulting from instruction. Equally, Audu (2018) identified them as the footprints of the learning progression, which reflect to the teacher and the process of instruction have facilitated it.

Academic outcomes in secondary education are dealt with by continuous assessments, internal school examinations, and external standardised tests like the West African Senior School Certificate Examination (WASSCE). Olaoyin and Isuku (2019) give the importance of these results in their study by mentioning that academic outcomes measure student learning, guide the improvement of instruction as well as provide accountability data for educational stakeholders.

Relationship between Teaching Styles and Academic Outcomes

The evidence from different educational contexts points to the fact that a teacher's style has a major impact on a student's academic performance. Instructional approaches are not only an indication of what students learn but also an efficient way of retaining and applying the learned knowledge. According to Isa et al. (2020), talking about teaching methods is highly correlated with students' achievement levels across different subjects at the level of Nigerian secondary schools.

Influence Of Teachers ' Teaching Style On The Academic Outcomes' Diagram

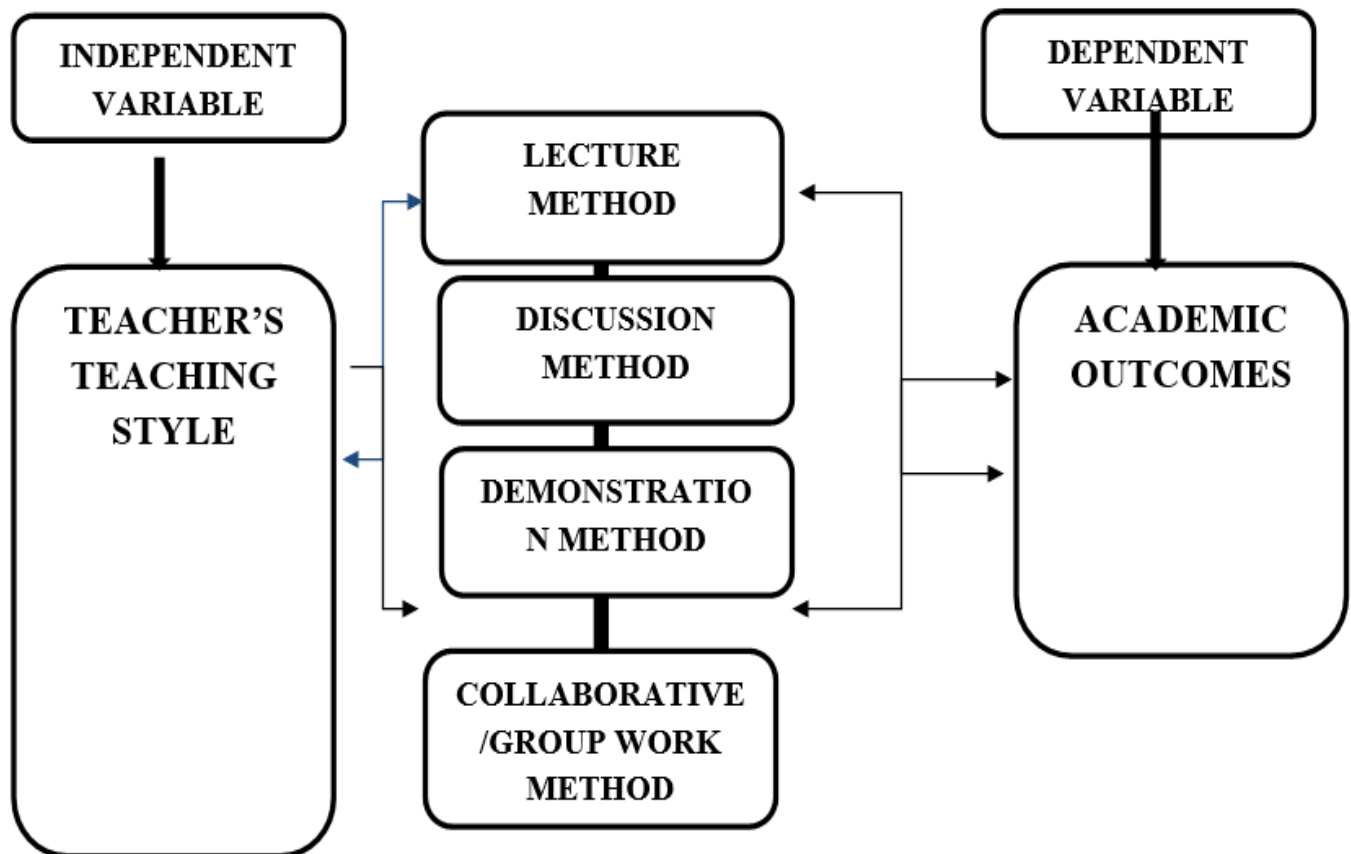


Figure 1: Conceptual Framework Showing the Relationship between Teachers' Teaching Styles and Academic Outcomes.

The conceptual framework illustrates how teachers' teaching styles influence the academic outcomes of senior secondary school students. The diagram identifies four major teaching styles, lecture method, discussion method, demonstration method, and collaborative or group work method, as the key instructional approaches that shape learners' performance. Each teaching style is linked to academic outcomes through directional arrows, showing that these methods have direct effects on students' learning achievements.

THEORETICAL FRAMEWORK

Constructivist Learning Theory (Piaget & Vygotsky)

The Constructivist Learning Theory is one of the most influential frameworks in modern education. The theory, advanced by Jean Piaget and Lev Vygotsky, asserts that learners actively construct knowledge through interaction with their environment rather than passively receiving information from the teacher. Piaget (1977) viewed learning as a process of internal cognitive development, where individuals assimilate and accommodate new experiences to form mental structures known as schemas.

Behaviourist Learning Theory (Skinner)

Behaviourist Learning Theory, primarily associated with B. F. Skinner, posits that learning is a change in observable behaviour caused by external stimuli in the environment. According to this theory, learning occurs when an individual responds to stimuli and is reinforced through rewards or punishments (Skinner, 1953). Behaviourists emphasise that teachers play a dominant role in controlling the learning process, structuring experiences, and reinforcing to shape students' behaviour and performance.

Empirical Review

This section critically examines empirical studies, both Nigerian and international, that investigate the relationship between various teaching styles (lecture, discussion, demonstration, collaborative/group work) and academic outcomes. The purpose is to identify what past research has found, the strengths and the limitations of those studies, emerging trends and contradictions, and where gaps remain, particularly relevant to senior secondary schools in Lagos and Eti-Osa.

Influence of Lecture Method on Academic Outcomes

Studies examining the lecture method (a teacher-centred style where the teacher transmits information and students are mainly passive listeners) often show mixed outcomes depending on the subject matter, student level, and whether the lecture is supplemented with interactive components.

One such study is by Bello et al. (2016), who compared simulation techniques with the lecture method in Mafoni Day Secondary School, Maiduguri, Borno State. Their quasi-experimental design found that students taught via simulation significantly outperformed those taught by lecture, indicating that while lecture can deliver content broadly, it is often inferior in promoting higher retention or understanding when compared with more interactive or hands-on methods.

Influence of Discussion Method on Academic Outcomes

The discussion method involves two-way teacher-student and student-student interaction. It allows for exchange of ideas, clarification of concepts, debate, reflection, and helps in deeper understanding.

Jatau et al. (2021) carried out a study in Zonkwa, Kaduna State, examining the impact of the discussion method on performance and attitude in biology. They found that students taught by the discussion method not only improved in academic performance but also showed more positive attitudes toward biology compared to those taught through lecture or other more passive methods. Students were more engaged, asked more questions, and could relate biology concepts to everyday life.

Precious and Feyisetan (2020) compared teacher-centred and student-centred teaching methods in biology in Delta State. They reported that student-centred methods (which include discussion) led to higher academic achievement than teacher-centred methods. Student-centred methods also fostered higher motivation and participation.

Influence of Demonstration Method on Academic Outcomes

The demonstration method (showing processes, experiments, physical or visual models) often works well for subjects with a strong practical or visual component such as sciences, technical subjects, or accounting when graphical or procedural knowledge is involved.

Udo and Madu (2024) explored demonstration instructional strategy on students' academic achievement in physics in senior secondary schools in Akwa Ibom State. Using quasi-experimental design, they found that students taught via demonstration achieved significantly higher scores in projectile motion topics than students taught via lecture. This supports the view that demonstration aids conceptual clarity and application.

Influence of Collaborative/Group Work Method on Academic Outcomes

Collaborative or group work methods involve students working together in small groups to solve problems, discuss issues, or carry out tasks; the teacher becomes more of a facilitator.

Chukwuka and Pius (2024) investigated "Collaborative/Competitive Learning Styles and Students' Academic Performance in Cost Accounting in Federal Universities in South-South Nigeria." Though this study is in a tertiary setting, it provides insight: there was a significant positive association between collaborative learning

style and academic performance in cost accounting. Students using collaborative approaches had better grades and reported better understanding.

RESEARCH METHODOLOGY

Research Design

The study adopted a descriptive survey research design. This design will enable the researcher to obtain the opinions and perceptions of a representative sample of the target population and will allow generalisation of findings to the entire population.

Population of the Study

The population of this study consists of all Senior Secondary Two (SS2) students in public senior secondary schools within the Eti-Osa Local Government Area (LGA) of Lagos State. According to the Lagos State Ministry of Education's most recent publicly available enrolment report (2018/2019 Annual School Census), Eti-Osa LGA has a total SS2 enrolment of 3,145 students, comprising 1,448 males and 1,697 females (Lagos State Ministry of Education, 2019).

Sample and Sampling Procedure

A total of one hundred and fifty (150) SS2 students will be selected as the sample for this study. The sample will comprise both male and female students drawn from public senior secondary schools in Eti-Osa Local Government Area (LGA) of Lagos State. A multistage sampling procedure will be adopted.

In the first stage, a simple random sampling technique will be used to select the schools. The names of all public senior secondary schools in Eti-Osa LGA will be written on slips of paper, folded, and placed in a container. A neutral person will then pick the slips at random until the required number of three (3) schools is selected.

In the second stage, after the schools have been selected, the students will also be chosen using simple random sampling. A list of all SS2 students in each selected school will be obtained from the school's administration. The students on the list will be assigned numbers, after which a random number table or balloting method will be used to select fifty (50) SS2 students from each school, making a total sample size of 150 students. This procedure will give all SS2 students an equal chance of being selected and will ensure adequate representation of the population.

Research Instrument

The research instrument that will be used in this study for data collection from the respondents will be a self-structured questionnaire and will be titled: **"Influence of Teachers' Teaching Style on Academic Outcomes of Questionnaire"** (ITTSAOQ), which will be researcher-made. The questionnaire will be divided into three (3) sections. Section A will be designed to collect the respondents' biodata. Section B will be designed to test the hypotheses. Section B took the format of the modified 4-point Likert scale. It will have 4 optional responses vis-à-vis: Strongly Agree (SA), Agree (A), Strongly Disagree (SD), and Disagree (D). The responses will be weighted on a four-point scale, with the most favourable responses having four points and the least favourable responses having one point. while section C consisted of ten achievement test items/questions in English Language and Mathematics.

Method of Data Analysis

The data collected will be analyzed using both descriptive and inferential statistical techniques. Participants' biodata will be summarised with descriptive statistics, including frequencies and percentages, to provide an overview of the sample characteristics. To test the study's hypotheses, inferential statistics will be employed, specifically Pearson's Correlation Coefficient, at a 0.05 level of significance, to determine the relationships

between teaching styles and students' academic outcomes. All analyses will be conducted using the Statistical Package for Social Sciences (SPSS) software to ensure precision and reliability in the results.

Data Presentation And Analysis

This chapter presents the analysis and interpretation of data collected for the study. The data are presented according to the research questions and hypotheses that guided the study.

Data Presentation and Analysis

Table 1: Demographic Data of the Respondents

Variables	Frequency	Percentage (%)
Gender		
Male	68	45.3
Female	82	54.7
Total	150	100

Table 1 shows that 68 respondents (45.3%) were male, while 82 respondents (54.7%) were female. This indicates that both genders were adequately represented in the study, with a slightly higher number of female students. The balanced gender distribution ensures that the findings reflect diverse perspectives on teachers' teaching styles and academic outcomes.

Analysis of Research Questions

Research Question 1: How does the lecture method influence the academic outcomes of senior secondary school students in Eti-Osa Local Government Area?

Table 2: Mean Scores on Lecture Method and Academic Outcomes

S/N	Item	SA (%)	A (%)	D (%)	SD (%)	Mean (\bar{x})	Remark
1	Detailed verbal explanations improve my understanding.	44	36	12	8	3.16	Agreed
2	Lecture method helps complete the syllabus on time.	40	38	14	8	3.10	Agreed
3	Teacher mainly explains while students listen and take notes.	48	34	10	8	3.22	Agreed
4	Long lectures sometimes reduce my concentration.	36	32	18	14	2.90	Agreed
5	Lecture method helps exam preparation.	42	35	13	10	3.09	Agreed

All the items in Table 2 recorded mean scores above the criterion mean of 2.50, indicating that respondents agreed that the lecture method influences their academic outcomes. While students acknowledged the usefulness of lectures for understanding and examination preparation, some also indicated that prolonged lectures may affect concentration. Overall, the lecture method was found to have a positive influence on academic outcomes.

Research Question 2: In what ways does the discussion method affect the academic outcomes of senior secondary school students?

Table 3: Mean Scores on Discussion Method and Academic Outcomes

S/N	Item	SA (%)	A (%)	D (%)	SD (%)	Mean (\bar{x})	Remark
1	Teacher encourages open discussion.	46	38	10	6	3.24	Agreed
2	Sharing ideas improves understanding.	50	34	10	6	3.28	Agreed
3	Discussion increases confidence.	42	36	14	8	3.12	Agreed
4	Discussions clarify difficult topics.	48	32	12	8	3.20	Agreed
5	Students express opinions freely.	44	34	14	8	3.14	Agreed

Table 3 shows that all the items recorded mean scores above the criterion mean of 2.50, indicating that the discussion method has a positive influence on students' academic outcomes. The highest mean score ($\bar{x} = 3.28$) suggests that sharing ideas during discussions significantly improves students' understanding of lessons. Students also agreed that open discussions encouraged by teachers promote active participation and create opportunities for learners to ask questions and clarify difficult concepts ($\bar{x} = 3.24$; 3.20). Furthermore, discussion-based lessons were found to boost students' confidence in contributing during class activities ($\bar{x} = 3.12$). Overall, the findings indicate that the discussion method enhances comprehension, participation, and confidence, thereby contributing positively to students' academic performance.

Research Question 3: What is the impact of the demonstration method on academic outcomes?

Table 4: Mean Scores on Demonstration Method and Academic Outcomes

S/N	Item	SA (%)	A (%)	D (%)	SD (%)	Mean (\bar{x})	Remark
1	Teacher demonstrates problem-solving steps.	52	32	10	6	3.30	Agreed
2	Demonstration makes learning easier.	48	36	10	6	3.26	Agreed
3	Practical examples improve memory.	46	34	12	8	3.18	Agreed
4	Demonstrations make lessons interesting.	44	36	12	8	3.16	Agreed
5	Real-life materials aid understanding.	42	38	12	8	3.14	Agreed

Table 4 indicates that all the items recorded mean scores above the benchmark mean of 2.50, showing that the demonstration method has a positive influence on students' academic outcomes. The highest mean score ($\bar{x} = 3.30$) reveals that teachers' demonstration of problem-solving steps greatly enhances students' understanding of lessons. Students also agreed that demonstrations make learning easier and help them remember concepts better through the use of practical examples ($\bar{x} = 3.26$; 3.18). In addition, demonstration-based lessons were perceived as more interesting and engaging, which sustains students' attention during class ($\bar{x} = 3.16$). The use of real-life materials further aided comprehension ($\bar{x} = 3.14$). Overall, the findings show that the demonstration method promotes clarity, interest, and retention, thereby improving students' academic performance.

Research Question 4: What is the combined influence of teachers' teaching styles on academic outcomes?

Table 5: Mean Scores on Combined Teaching Styles and Academic Outcomes

S/N	Item	SA (%)	A (%)	D (%)	SD (%)	Mean (\bar{x})	Remark
1	Teaching styles influence performance.	50	34	10	6	3.28	Agreed
2	Combining methods improves learning.	54	30	10	6	3.32	Agreed
3	Variety of methods sustains interest.	48	36	10	6	3.26	Agreed
4	Teaching style affects exam success.	46	34	12	8	3.18	Agreed
5	Multiple methods enhance understanding.	52	32	10	6	3.30	Agreed

Table 5 shows that all the items recorded mean scores above the criterion mean of 2.50, indicating that the combined use of different teaching styles positively influences students' academic outcomes. The highest mean score ($\bar{x} = 3.32$) suggests that students strongly agreed that combining different teaching methods improves learning. Respondents also acknowledged that the use of varied instructional approaches sustains their interest and enhances understanding of lessons ($\bar{x} = 3.26; 3.30$). In addition, teaching style was perceived to have a direct effect on students' academic performance and success in examinations ($\bar{x} = 3.28; 3.18$). Overall, the findings imply that integrating lecture, discussion, and demonstration methods creates a more effective learning environment, promotes deeper comprehension, and leads to better academic outcomes among senior secondary school students.

Testing of Hypotheses

Hypothesis One: There is no significant relationship between the lecture method and academic outcomes.

Table 6: Pearson Correlation between Lecture Method and Academic Outcomes

Variable	N	Mean	SD	df	r-cal	r-crit	Decision
Lecture Method	150	15.42	3.28	148	0.218	0.159	H_{01} Rejected
Academic Outcomes	150	16.08	3.41				

Analysis presented in Table 6 shows a positive relationship between the lecture method and students' academic outcomes ($r = 0.218$) at 148 degrees of freedom. The calculated correlation value ($r\text{-cal} = 0.218$) is greater than the critical value ($r\text{-crit} = 0.159$) at the 0.05 level of significance. Therefore, the null hypothesis (H_{01}) is rejected. This result indicates that there is a statistically significant relationship between the lecture method and the academic outcomes of senior secondary school students in Eti-Osa Local Government Area. Although the relationship is moderate, the finding suggests that the lecture method contributes meaningfully to students' academic achievement, particularly in content coverage and examination preparation when effectively delivered.

Hypothesis Two: There is no significant relationship between the discussion method and academic outcomes.

Table 7: Pearson Correlation between Discussion Method and Academic Outcomes

Variable	N	Mean	SD	df	r-cal	r-crit	Decision
Discussion Method	150	15.88	3.36	148	0.241	0.159	H_{02} Rejected
Academic Outcomes	150	16.08	3.41				

Analysis shown in Table 7 indicates a positive relationship between the discussion method and students' academic outcomes ($r = 0.241$) at 148 degrees of freedom. The calculated correlation value ($r\text{-cal} = 0.241$) is higher than the critical value ($r\text{-crit} = 0.159$) at the 0.05 level of significance. Consequently, the null hypothesis (H_{02}) is rejected. This finding reveals that the discussion method has a statistically significant relationship with the academic outcomes of senior secondary school students in Eti-Osa Local Government Area. The result suggests that discussion-based teaching enhances students' understanding, confidence, and active participation, which in turn contributes positively to improved academic performance.

Hypothesis Three: There is no significant relationship between the demonstration method and academic outcomes.

Table 8: Pearson Correlation between Demonstration Method and Academic Outcomes

Variable	N	Mean	SD	df	r-cal	r-crit	Decision
Demonstration Method	150	16.02	3.29	148	0.268	0.159	H_{03} Rejected
Academic Outcomes	150	16.08	3.41				

Analysis presented in Table 8 reveals a positive relationship between the demonstration method and students' academic outcomes ($r = 0.268$) at 148 degrees of freedom. The calculated correlation value ($r\text{-cal} = 0.268$) is greater than the critical value ($r\text{-crit} = 0.159$) at the 0.05 level of significance. Therefore, the null hypothesis (H_{03}) is rejected. This result indicates a statistically significant relationship between the demonstration method and academic outcomes among senior secondary school students in Eti-Osa Local Government Area. The finding suggests that teaching through demonstrations enhances students' understanding by linking theoretical concepts with practical illustrations. By observing step-by-step procedures and real-life examples, students are better able to comprehend, retain, and apply learned concepts. Consequently, the demonstration method contributes positively to improved academic performance and overall learning effectiveness.

Hypothesis Four: There is no significant combined relationship between teaching styles and academic outcomes.

Table 9: Pearson Correlation between Combined Teaching Styles and Academic Outcomes

Variable	N	Mean	SD	df	r-cal	r-crit	Decision
Teaching Styles (Combined)	150	16.24	3.37	148	0.291	0.159	H_{04} Rejected
Academic Outcomes	150	16.08	3.41				

Analysis in Table 9 shows a positive and significant relationship between combined teaching styles (lecture, discussion, and demonstration) and students' academic outcomes ($r\text{-cal} = 0.291$) at 148 degrees of freedom. Since the calculated value exceeds the critical value ($r\text{-crit} = 0.159$) at the 0.05 level of significance, the null hypothesis (H_{04}) is rejected. This finding indicates that the integrated use of multiple teaching methods positively influences academic performance. By combining lecture, discussion, and demonstration approaches, teachers cater to diverse learning preferences, sustain student interest, and promote deeper understanding. The result highlights that a varied pedagogical approach is more effective in improving students' comprehension, engagement, and overall academic achievement in senior secondary schools.

DISCUSSION OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS

Discussion of Findings

The purpose of this study was to examine the influence of teachers' teaching styles on the academic outcomes of senior secondary school students in the Eti-Osa Local Government Area of Lagos State. The study was guided by four research questions and corresponding null hypotheses addressing the lecture, discussion, and demonstration methods, and the combined effect of these teaching styles on academic outcomes. The

discussion below interprets the findings in relation to the research questions, hypotheses, and relevant literature.

Hypothesis One: There is no significant relationship between the lecture method and academic outcomes. Data from Table 6 revealed that all items measuring the lecture method had mean scores above 2.50, with the Pearson correlation showing a positive, significant relationship ($r\text{-cal} = 0.218 > r\text{-crit} = 0.159$). This indicates that the lecture method moderately influences students' academic performance. Students benefit from structured verbal explanations and syllabus coverage, although prolonged lecture sessions may reduce concentration. This finding aligns with Oladipo et al. (2010) and Bello et al. (2016), who reported that while lectures transmit knowledge efficiently, they may limit active participation and critical thinking. Therefore, the lecture method contributes to learning outcomes but is most effective when complemented with participatory strategies.

Hypothesis Two: There is no significant relationship between the discussion method and academic outcomes. Table 7 shows that students agreed the discussion method enhances understanding, confidence, and participation (mean scores 3.12–3.28). The correlation analysis indicated a significant positive relationship ($r\text{-cal} = 0.241 > r\text{-crit} = 0.159$). Discussion-based teaching encourages active engagement and collaborative knowledge construction, allowing students to clarify difficult concepts and develop critical thinking skills. These results are consistent with Jatau et al. (2021) and Precious & Feyisetan (2020), who found that learner-centred approaches, such as discussions, improve academic outcomes. Thus, discussion as a teaching method significantly fosters comprehension and retention among senior secondary students.

Hypothesis Three: There is no significant relationship between the demonstration method and academic outcomes.

Data in Table 8 indicate that students strongly agreed that demonstrations help understanding and retention, with mean scores ranging from 3.14 to 3.30. The correlation analysis showed a statistically significant positive relationship ($r\text{-cal} = 0.268 > r\text{-crit} = 0.159$). Demonstration allows students to observe problem-solving steps, apply practical examples, and relate lessons to real-life contexts. This finding supports Bandura's social learning theory, emphasizing learning through observation and modeling, and is in line with Umoru & Haruna (2018), who reported that demonstration improves comprehension in technical subjects. Therefore, practical and visual instructional methods enhance academic performance among students.

Hypothesis Four: There is no significant combined relationship between teaching styles and academic outcomes.

Table 9 shows that integrating lecture, discussion, and demonstration methods has the highest mean scores (3.18–3.32), and a significant positive correlation ($r\text{-cal} = 0.291 > r\text{-crit} = 0.159$). This indicates that the combination of multiple teaching styles produces the most substantial impact on academic outcomes. Using varied approaches caters to different learning preferences, maintains students' interest, and improves understanding and retention. These findings align with Akinbobola (2015) and Isa et al. (2020), who emphasized that combining teacher-centred and learner-centred methods results in better academic performance.

Overall, the findings reveal that while each teaching style individually influences students' academic outcomes, a combined, balanced approach maximizes learning effectiveness, engagement, and exam success.

Conclusion

The study has shown that teachers' teaching styles have a significant influence on the academic outcomes of senior secondary school students in Eti-Osa Local Government Area, Lagos State. The analysis revealed that the lecture method provides structured delivery of content, enabling students to cover the syllabus efficiently and understand key concepts, though it may not fully promote active engagement or critical thinking. The discussion method, on the other hand, was found to enhance student participation, confidence, and comprehension, allowing learners to clarify difficult topics and develop higher-order thinking skills. Similarly,

the demonstration method significantly improved understanding and retention by providing visual and practical illustrations of lesson content, making learning more meaningful and interactive. Importantly, the combined use of lecture, discussion, and demonstration methods was observed to have the most substantial positive impact on academic outcomes, suggesting that a balanced, multi-method approach caters to diverse learning preferences, sustains interest, and improves examination performance. Overall, the findings indicate that effective teaching is not limited to one method but requires integration of teacher-centred and learner-centred strategies to maximize learning potential. Consequently, teachers, schools, and policymakers should prioritize the use of varied instructional methods to enhance students' academic achievement and foster a more engaging and effective learning environment.

Recommendations

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

1. Teachers should adopt a mix of lecture, discussion, and demonstration methods to enhance students' understanding, participation, and retention of lessons.
2. School administrators should provide training and workshops for teachers on the effective use of diverse instructional methods to improve academic outcomes.
3. The Lagos State Ministry of Education should encourage policies that promote learner-centred teaching practices across senior secondary schools.
4. Parents should support teachers' efforts by creating a conducive learning environment at home and encouraging students to actively engage in classroom discussions and practical exercises.
5. Teachers should use collaborative activities, where feasible, to complement lecture, discussion, and demonstration, further improving students' motivation and cognitive skills.

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