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TEACHING METHODS AS CORRELATES OF STUDENTS' ACADEMIC ACHIEVEMENT IN ENGLISH LANGUAGE IN PUBLIC SECONDARY SCHOOLS IN ANAMBRA STATE

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ABSTRACT

The study investigated the relationship between teaching methods and students' academic achievement in English language in public secondary schools in Anambra State. Two research questions guided the study and two corresponding null hypotheses were tested at a 0.05 level of significance. The study adopted a correlational research design. The target population comprised 23,040 SS II students across 267 public secondary schools in the 2024/2025 academic session. A sample of 600 students was selected using Stratified and Simple Random Sampling Techniques. Out of which 571 were returned questionnaires. The research instrument, Teaching Methods and Students' Academic Achievement Questionnaire (TMSAAQ), were developed by the researcher and validated by three experts in English Studies and Educational Measurement and Evaluation. Reliability of the instrument was determined using Cronbach Alpha, which yielded an overall coefficient of 0.78, indicating high internal consistency. The returned questionnaires were retrieved and analyzed using Pearson Product Moment Correlation Coefficient for research questions and test of significance of Pearson r for hypothesis testing. Findings showed moderate positive and statistically significant relationships between each of the two teaching methods inquiry-based, and brainstorming and students' academic achievements. Based on these findings, the study recommended regular teacher training on diverse, learner-centered teaching strategies and better integration of innovative pedagogies into English language instruction to improve academic outcomes in secondary schools. It adds a context-specific understanding of how instructional strategies can influence language learning outcomes in Anambra State, thus supporting data-driven decision-making in curriculum and teacher development.

Keywords: Teaching Methods, Students' Academic Achievement and English Language.

Introduction

In any educational system, the learners are considered as the main element in educational design and all goals and educational programs are designed with the aim of making desirable changes in them. Development in any society stems from the efficient and correct education system. Learning is one of the most important topics in the field of educational systems that

has been the subject of many researches. Education as a tool for building a united independent, wealthy and egalitarian society that can maintain its tradition and values is a social process facilitated through the instrumentality of the school (Kaerner et al., 2020). The Nigerian educational system is categorized into pre-primary schools, primary schools, secondary schools and tertiary education. Secondary school education is a form of education students attain after primary education and before tertiary education. The goal of secondary school education is to prepare students for useful living within the society and higher education National Policy on Education (Federal Republic of Nigeria (FRN), 2013) and make sure that students' academic achievement improves in every internal and external examinations. Academic achievement of public secondary school students always remains a matter of great concern for the school and family. Parents and teachers are essential source in developing suitable learning attitude among students. In Nigeria, Popoola et al (2021) maintained that the low academic achievement of students in the secondary education has been of concern to many parents, teachers, counsellors, and educational administrators. Poor academic achievement has been attributed to lack of adequate teaching facilities, unqualified teachers, psychological adjustment problems such as anxiety, stress, and depression, and students' lack of financial support such as scholarships, bursary awards, and loans (Popoola el at., 2021).

Academic achievement is defined as the measurement of students' success across the subjects taught which displays the learning outcomes accessed through performance, classroom test, assignment, output reports, research and major examinations. Achievement refers to the completion and attainment of a certain level that a student can achieve after a series of education or training, while performance refers to the result of an examination in a subject or a whole course (Jega & bashir, 2018). However, some scholars consider achievement to be equivalent to grades, and it is on the basis of the different understandings of achievement and grades that scholars have differed in their definitions of academic achievement (Brookhart et al., 2016). Academic achievement refers to a student's success in meeting short or long-term goals in education. Liu et al., (2019) defined academic achievement as a definition of a learner's the performance of teaching and learning assessments, such as final examination results, achieved by the person in school. Okegbile in Nsini and Emeya (2017), stated that academic achievement is terminology used while determining learner's success in formal education, which is measured through factors exerting influence essentially. Academic achievement is commonly measured by examinations or continuous assessment but there is no general agreement on how it is best tested or which aspects are most important (Jega &bashir, 2018). The specified standard is usually called pass mark, and the pass mark is a score above average in which students are considered having passed and below which students are considered having failed.

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 (Liu et al., 2019). It is the knowledge attained or skills developed in school. It is the extent to which a student, teacher

or institution has achieved their educational goals. The field of academic achievement covers a wide variety of educational outcomes that depends on the indicators used to measure it. Liu et al ,stated that there are very general indicators of academic achievement such as procedural and declarative knowledge acquired in an educational system, more curricular-based criteria such as grades or performance on an educational achievement test, and cumulative indicators of academic achievement such as educational degrees and certificates. In almost all societies, either developed, or developmental, academic achievement plays a vital role in every person's life. In Anambra state, academic achievement for all educational systems is going through a general measure, that is, grades or performance (e.g. Grade Point Average) performed on several test or examinations.

Achievement in English language may inextricably linked to future career opportunities, plays an important role in the level of the students general learning acquisitions, as well as a reliable criterion to divide students into scientific or literary streams. Achievement in English language can be a gate way to well rewarded and high-status positions; the functional role of English language to Science and Technology is so multifaceted and multifarious that no area of science, technology and business enterprise escapes its application (Jega & bashir, 2018). The researcher sees academic achievement as student's or individual's success in meeting academic goals, standards, and expectations. Erik et al., (2019), posited that academic achievement can be influenced by factors that come from within students and teachers such as student engagement, school pant, conducive environment, teaching method of the teacher, teachers' competence, teachers' interpersonal skills etc. The research tends to investigate teaching methods and students' academic achievement.

Teaching methods are a set of measures that the teacher usually uses according to the existing conditions and facilities to guide students' activities and to achieve the educational goals. Abdulkadir et al., (2021) defined teaching methods as various approaches used by educators to achieve objectives of a lesson. (Ozbal, 2019) viewed teaching methods as various methods of organizing learners and suitable methods to best promote learning process which are influenced by some determinants like number of learners, objectives of lesson, age and the topic to be taught It is up to the teacher to choose the best and most appropriate teaching method according to the situation, and in general, learners learn more when they work together than when they try alone, which shows the importance of using active teaching methods (Pech et al., 2021).

A teaching method is a generalized plan for a lesson that includes structure, instructional objectives, and an outline of planned tactics, necessary to implement the methods (Stone and Morris, 2020). Lawton and Sarode, (2018) defined, "teaching method is a generalized plan for a lesson(s) which includes structure desired learner behavior in terms of goals of instructions and an outline of planned tactics necessary to implement the method". Teaching methods refer to methods used to help students learn the desired course contents and be able to develop achievable goals in the future. Teaching methods identify the different available learning methods to enable them to develop the right method to deal with the target group

identified. Teaching methods are several approaches to making judgments regarding a course, a single class, or even an enti re curriculum, all of which begin with an examination of essential aspects in the teaching environment. Onajite (2020) opined that teaching methods are teacher's complicated educational behaviour in applying method, tactics, tools, discipline, and communications to achieve educational aims and/or objectives. Onajite, stated that teaching methods encompass not just the teacher's method of presentation, but also everything he does in terms of setting up settings, grouping pupils, supervising activities, creating assignments, and providing information to promote learning.

The success of teaching English language in secondary schools depends to a large extent on effective teaching methods applied by teachers. More so, any teacher who is not applying effective methods in teaching English language at secondary school is operating below optimum capacity. On this basis, Nwaokolo (2018) was of the opinion that effective teaching of English language at secondary school demands the use of appropriate tools, equipment, and effective methods in order to emphasize learning-by-doing.

Teaching and learning are meaningful when the learner is actively engaged in the process and understands the ideas or skills that he is learning. When teachers apply effective teaching methods, students learn and their competences will be highly boosted in subjects like English language. Demonstration, discussion, role-play/socio drama, lecture, questioning, explanations, discovery/inquiry based learning brainstorming, practice or practical exercises, field trip, excursion, narration, modelling, guest speaker, visual aids, direct instruction, rote learning, query method, activity method, debate, conferencing, cooperative learning, game based, graphic organize are some of the teaching methods used in teaching of English language as identified by various scholars (Ezenwafor & Akpobome, 2017; Nwokike, 2016; Taalai, 2016; Ukata, Wechie & Nmehielle, 2017; Umameiye, 2015). However, this study adopted inquired based, brainstorming, discussion, demonstration, and game based methods as teaching methods for the study.

Inquiry-based teaching method has gained prominence as an innovative pedagogical approach that emphasizes student- centred learning through active exploration, questioning, and problem-solving. Rooted in constructivist theories of education, Inquiry-based teaching encourages students to engage deeply with subject matter, develop critical thinking skills, and foster a lifelong love of learning (Almulla, 2023). This teaching/learning method contrasts with traditional rote learning methods by promoting curiosity and allowing students to take ownership of their educational journeys. The effectiveness of inquiry-based teaching has been widely studied across various educational settings and disciplines, revealing its potential to significantly enhance educational outcomes. Despite these promising findings, the implementation of IBL presents several challenges, including the need for substantial instructional support, adequate teacher training, and the creation of conducive learning environments (Hinostroza et al., 2024).

Inquiry-based teaching method is a teaching method that was undertaken to improve the process of teaching and learning science. It is a form of teaching that emphasizes the process of seeking knowledge by questioning and investigation rather than portraying a direct path to knowledge (Marcus, 2017). It is closely related to the ways scientists come to know what they know; Students develop understanding of the natural world through problem formulation, making hypotheses conducting investigations, and drawing conclusions based on evidence. The process of inquiry learning promotes students' understanding of the nature of English language as well as the motivation for learning. It also develops students' inquiry skills which is a key aspects of lifelong learning. Inquiry based learning is one of the best methods used in inductive approaches of learning process. It is the ideal way of engaging learners in more meaningful manner to learn rather than just rote learning the facts (Smith, 2019), learning by doing experientially. It involves observation of facts to interpret the challenging real-world problems. Kember (1997 as cited in smith, 2019) stated that inquiry-based learning sets the base for learner centered approach, which becomes the focus on student learning rather than sharing the well-defined bodies of content knowledge or subject matter. Inquiry-based teaching creates an active learning environment as it involves learning by doing and may comprise of discussions, questioning and bring solution to the problems. Inquiry-based teaching facilitates the enhancement of self- directed learning skills of the students (Khalaf & Zin, 2018). Essential characteristic of Inquiry-based teaching is that there is no one right answer, it specifically focus on students learning promote and encourages critical thinking, most specifically make the learners responsible and integrate disciplines and connecting real world situations (Eysink et al., 2015).

The inquiry learning method consists of six steps viz. First, the teacher's orientation will refute and encourage students to overcome the problem. Second, formulating the problem is a step to raise students to a question that listed the problem. Third, proposing a hypothesis is a temporary response to the question being examined. Fourth, collecting data that is the activity of getting the input needed. Fifth, testing the hypothesis is a technique to find responses that are considered to be comparable with the information and instructions obtained according to data collection. And sixth, formulating conclusions is outlining the findings obtained based on the results of hypothesis testing. The main characteristics of the inquiry learning method according to (Made, 2021) include the maximum focus on student activity in solving problems. In addition, all activities carried out by students are shown to solve and find individual responses that are being asked by teachers, this will create students more confident in expressing opinions. And finally, it is intended to elaborate the students' perceptive absorption into an intellectual process. This method serves to increase student learning activities to the maximum in order to obtain a questionable problem (Sapitri, 2018).

Despite the benefits of inquiry-based teaching, the actual implementation of inquiry-based learning remains difficult for both teachers and learners; even after many years of reforms this implemented in the classrooms and traditional approach is not widely learning still

dominate the teaching and learning activities (Dushimimana & Mugabo, 2022); This is due to challenges associated with inquiry implementation as compared to the traditional way of learning. The main challenges include: (i) Teachers' deficiency of inquiry experiences which causes low self-confidence in conducting the inquiry, (ii) Students' resistance to inquiry, (iii) Lack of inquiry skills on the side of the students that make it difficult for them to formulate good research questions,(iv) Inability of students to manage and organize complex tasks,(v) The practical constraints of the learning contexts such as fixed schedules, and (vi) Unavailability of necessary resources (Dushimimana & Mugabo, 2022). Some teachers may prefer brainstorming teaching method to inquiry based method.

The brainstorming approach can make students express ideas because the teacher collects as many ideas as possible that differ from one student to another. The brainstorming method is effective in training students' critical thinking skills. This method trains students' activeness in asking and processing questions so as to encourage students to participate in the learning process (Chaijum, 2020). Brainstorming is very needed to identify and analyze problems in problem-based learning. Problem-based learning requires efforts to solve problems that are presented in an unstructured manner (Anazifa & Djukri, 2017). The brainstorming teaching method was implemented to encourage students to think creatively in finding a solution to the problem in the company by way of discussion, where every employee is free to express his opinion (Hanipah et al., 2018). The brainstorming method is a way to gather ideas or the opinion of every student who learns about a problem. In line with this opinion, Brainstorming is a method for generating ideas to solve all obstacles and problems (Hidayanti et al., 2018).In brainstorming, a group of people try to come up with group solutions and ideas about an issue without judging them (Unin & Bearing, 2016).

The purpose of brainstorming is to super level the process of generating responses from the evaluation process, because evaluation and judgment often hinder the flourishing of creativity and expression of various responses and cause the suppression (Malkawi & Smadi, 2018). In the brainstorming method, students sit together and discuss a topic, and each person expresses any solution that comes to mind, and the teacher, as a guide and facilitator, teaches all the material and solutions (Clark et al., 2019). The brainstorming teaching method by Masoumifard (2022), was based on two principles and four rules, which include the importance of diversity of opinions and the existence of more than one solution to a problem and the role of the quantity of solutions in improving their quality and rules including the prohibition of criticism and evaluation, free and direct comment emphasizing the quantity and integration and improvement of suggestions and solutions. Brainstorming method has an effective role in enhancing the creativity and learning knowledge and skills, promoting participation and responsibility, improving social support and reducing stress, anxiety, frustration and helplessness (Al Masri, 2019). Syahrin et al (2019) who described that the purpose of using the brainstorming method is to exhaust everything that is thought by students in responding to the problems given to them by the teacher. Brainstorming has better advantages than other learning methods in terms of developing students' critical thinking skills. Brainstorming method becomes an essential learning method for the teachers

to understand comprehensively and able to implement it in the classroom appropriately. The brainstorming method makes students able to express their ideas or thoughts and actively engage in solving problems posed by the teachers.

Teachers are encouraged to make adjustments to the curriculum, modify ways of approaching various problems associated with the topic, and fine-tune the product based on the levels of readiness. They are also required to discern a student's interest in a particular subject and the learning curve of every schoolchild. Effective teaching of English language involves the incorporation of a variety of methods in the instructions given to students, the way they are grouped and the assessment method used since not all students learn the same thing at the same time using a similar approach. Therefore, teachers ought to proactively distinguish the needs of a student. They can make changes regarding how the curriculum should adapt to the students' needs and the appropriate teaching method to use. The ultimate goal of teaching English language is to ensure all students are successful without hindrances brought forth by their learning capabilities.

Learners not only respond by giving useful information, but they also actively use what they know to explore, negotiate, interpret. Recent observations have shown that the state of school and teaching methods in our various schools are poor and quite insignificant that if nothing is done to rectify and improve the situation, Nigeria education system may pose a more threat ahead and may collapse in the near future with the gradual increasing demand not being met by supply of higher education. It also becomes paramount to update and intensify an academic research that could showcase the method; the various forms of teaching methods; and to show their influence to properly call for improvement or provision of the most viable teaching method for better teaching. It is in pursuant of this that this research is exhumed to assess teaching methods used by English language teachers in teaching of English language in public secondary schools in Anambra State. It is against this backdrop that this study tends to fulfill.

Statement of the Problem

Over the years, observations and studies have shown that students' academic achievement in English Language in internal and external examinations such as WASSCE and NECO (SSCE) in Nigeria generally which Anambra State is not an exemption have been persistently low. Low academic achievement in English Language in particular among secondary school students in Anambra State has posed concern to parents, teachers, educational administrators and government for years. One suspects that this low academic achievement in English Language may be attributed to inadequate of teachers to employ good teaching methods among others. It may be that teachers are not properly using teaching methods in their classroom as expected which might be the cause of students' poor academic achievement in both internal and external examination in mathematics. This trend has been on the increase on daily basis. Its prevalence has attracted the concern of many researchers has it has become worrisome.

It is unfortunate however that many teachers do not realize that their methods and approach coupled with their relationship or interaction with students in the classroom have a far reaching implication on the academic achievements of their students. The end result of this if not given attention could be half-baked secondary school graduates that may not be able to further their educational pursuit, or even be employable because they could lack the requisite knowledge and skill to function in the labor market. Therefore, because of the low academic achievement of learners most especially in external examinations in English Language, many scholars tend to shift the problem to inadequate finance from the government. However, these may not be the major reasons why students fail both internal and external examinations in English Language. Students' poor achievement might be an indication of teachers' inadequacy of effective teaching methods for which they require development training. The problem of this study therefore, is to assess teaching methods as correlates of students' academic achievement in English language in public secondary schools in Anambra State.

Purpose of the Study

The main purpose of the study was to determine the relationship between teaching methods as correlates of students' academic achievement inEnglish language in public secondary schools in Anambra State. Specially the study sought to;

1. find out the relationship between inquiry-based method and students' academic achievement in English language in public secondary schools in Anambra state
2. determine the relationship between brainstorming method and students' academic achievement in English language in public secondary schools in Anambra state

Research Questions

The following research questions guided the study:

1. What is the relationship between inquiry based method and students' academic achievement in English language in public secondary schools in Anambra State?
2. What is the relationship between brainstorming method and students' academic achievement in English language in public secondary schools in Anambra State?

Hypotheses

The following null hypotheses was tested at 0.05 level of significance.

1. There is no significant relationship between inquiry based method and students' academic achievement in English language in public secondary schools in Anambra State
2. There is no significant relationship between brainstorming method and students' academic achievement in English language in public secondary schools in Anambra State

Methodology

The study adopted a correlational research design for this study. The area of the study is Anambra state. There six educational zone in Anambra State which are Aguata, Awka, Nnewi, Ogidi, Onitsha and Otuocha. The population of the study comprised 23,040 Senior Secondary SS 1I students as respondents. The sample size is 600 SS11 students drawn using Stratified and Simple random sampling technique. The instrument for the study was a self-structured questionnaire, titled ““Teaching methods questionnaire (TMQ) and Academic Achievement of SSII students in English Language”. The instrument has three section A-C. Section A deals with the personal data of the respondents, while section B is divided in clusters with 10 items, section C is Academic Achievement of SSII students in English Language collected from the classes of the sampled teachers. The instrument has four point scale response options with response format of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) and numerical value of 4,3,2 and 1 respectively. The instrument was validated by three experts two from English studies and one from Educational Measurement and Evaluation, all from Department of Educational Foundations, Faculty of Education, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus. The questionnaire was administered to the respondents with the help of five research assistants. A total number of 571were retrieved which represented (94%) return rate and (6%) loss. The reliability of the instrument was determined using Cronbach Alpha formula and average coefficient values of 0. 80 for inquired based and 0. 77 for brainstorming method are considered highly reliable and suitable for the study. Pearson Product Moment Correlation was used to analyze Teaching Methods and Students’ Academic Achievement in English Language in public Secondary Schools in Anambra State. In answering the research questions, the coefficient (r) and the size of the relationship were interpreted using the interpretation of correlation coefficient by Downie and Heath cited in Nworgu (2015) as shown: 0.80 and above for very high, 0.80 to below 0.60 for high, 0.40 to 0..60 for medium, 0.20 to 0.40 for low and 0.00 to 0.02 for very low respectively. The null hypotheses was tested using simple regression at 0.05 level of significance and the decision rule was rejection of null hypothesis wherever P value was less than or equals 0.05 (P≤.05) and non-rejection of P value wherever P value is greater than 0.05 (P>.05).

Research Question 1: What is the relationship between inquiry-based method and students’ academic achievement in English language in public secondary schools in Anambra State?

Table 1: Summary of Pearson Product Moment Correlation on the relationship between inquiry-based method and students’ academic achievement in English language

Variable	Inquiry-Based Method	Students' Academic Achievement	Remark

Inquiry-Based Method	Pearson Correlation	1.00	0.54**	Moderate relationship
	Sig. (2-tailed)	–	0.0117	Positive
	N	571	571	
Students' Academic Achievement	Pearson Correlation	0.54**	1.00	
	Sig. (2-tailed)	0.0117	–	
	N	571	571	

****Correlation is significant at the 0.05 level (2-tailed).**

Table 1 presented an analysis showing that there existed a moderate positive relationship between inquiry-based method and students' academic achievement in English language in public secondary schools in Anambra State. This deduction comes as a result of the 'r' having a positive value, r = 0.54 and n = 571. Hence, the study concluded that there exists a moderate positive relationship between inquiry-based method and students' academic achievement in English language in public secondary schools in Anambra State.

Research Question 2: What is the relationship between brainstorming method and students' academic achievement in English language in public secondary schools in Anambra State?

Table 2: Summary of Pearson Product Moment Correlation on the relationship between brainstorming method and students' academic achievement in English language

Variable		**Brainstorming Method**	**Students' Academic Achievement**	**Remark**
Brainstorming Method	Pearson Correlation	1.00	0.49**	Medium relationship
	Sig. (2-tailed)		0.0003	Positive
	N	571	571	
Students' Academic Achievement	Pearson Correlation	0.49**	1.00	

Sig. (2-tailed)	0.0003	
N	571	571

****Correlation is significant at the 0.05 level (2-tailed).**

Table 2 presented an analysis showing that there existed a moderate positive relationship between brainstorming method and students' academic achievement in English language in public secondary schools in Anambra State. This deduction comes as a result of the 'r' having a positive value, r = 0.49 and n = 571. Hence, the study concluded that there exists a moderate positive relationship between brainstorming method and students' academic achievement in English language in public secondary schools in Anambra State.

Test of Hypotheses

Hypothesis 1: There is no significant relationship between inquiry-based method and students' academic achievement in English language in public secondary schools in Anambra State.**H_i**= There is significant relationship between inquiry-based method and students' academic achievement in English language in public secondary schools in Anambra State.

Table 3: Test of significance of correlation between inquiry-based method and students' academic achievement in English language.

Variable		Inquiry-Based Method	Students' Academic Achievement	Decision
Inquiry-Based Method	Pearson Correlation	1.00	0.54**	Significant/ Reject H_o
	Sig. (2-tailed)		0.0117	
	N	571	571	
Students' Academic Achievement	Pearson Correlation	0.54**	1.00	
	Sig. (2-tailed)	0.0117		
	N	571	571	

**** Correlation is significant at the 0.05 level (2-tailed).**

The result of the test of significance of Pearson Product Moment Correlation Coefficient from Table 3 above showed a significant relationship between inquiry-based method and students' academic achievement in English language in public secondary schools in Anambra State. With r = 0.54, n = 571, and p-value = 0.0117. Since p-value (0.0117) is less than 0.05, the study rejects the null hypothesis and does not reject the alternative hypothesis

that there is a significant relationship between inquiry-based method and students' academic achievement in English language in public secondary schools in Anambra State.

Hypothesis 2: There is no significant relationship between brainstorming method and students' academic achievement in English language in public secondary schools in Anambra State.

Table 4: Test of significance of correlation between brainstorming method and students' academic achievement in English language.

Variable		**Brainstorming Method**	**Students' Academic Achievement**	**Decision**
Brainstorming Method	Pearson Correlation	1.00	0.49**	Significant/ Reject H_o
	Sig. (2-tailed)	–	0.0003	
	N	571	571	
Students' Academic Achievement	Pearson Correlation	0.49**	1.00	
	Sig. (2-tailed)	0.0003	–	
	N	571	571	

****Correlation is significant at the 0.05 level (2-tailed).**

The result of the test of significance of Pearson Product Moment Correlation Coefficient from Table 4 above showed a significant relationship between brainstorming method and students' academic achievement in English language in public secondary schools in Anambra State. With r = 0.49, n = 571, and p-value = 0.00. Since p-value (0.00) is less than 0.05, the study rejects the null hypothesis and does not reject the alternative hypothesis that there is a significant relationship between brainstorming method and students' academic achievement in English language in public secondary schools in Anambra State.

Discussion

Findings on the relationship between inquiry-based method and students' academic achievement in English language in Anambra State public secondary schools revealed a moderate positive and statistically significant relationship between the two variables (p=0.0117), with a Pearson correlation coefficient of r = 0.54. This finding indicates that increased use of inquiry-based teaching strategies corresponds with improved academic achievement among students in English language. The implication of this result is that

students exposed to inquiry-based methods such as questioning, investigation, analysis, and problem-solving tend to develop deeper understanding, critical reasoning, and personal engagement with the content, all of which translate into stronger academic performance. This outcome aligns with the core of constructivist learning theory, which underpins the conceptual framework of this study. According to the theory, learners actively construct knowledge through experience and reflection, and inquiry-based instruction provides the environment for such active engagement (Almulla, 2023). From the student responses in Cluster A of the instrument, it is evident that many students perceived inquiry-based strategies positively. They affirmed that their teachers regularly posed thought-provoking questions, connected lessons to prior knowledge, and encouraged active exploration of texts. These classroom practices, when consistently applied, align with the tenets of student-centered pedagogy and appear to foster both academic growth and sustained interest in English language learning.

This finding is in agreement with the statistical outcomes reported by Pedaste et al. (2015), whose study found a statistically significant positive relationship between inquiry-based science education and students' conceptual understanding. Similarly, Issaka (2020) observed measurable gains in achievement across subjects where learners were engaged through inquiry activities, although the magnitude of their correlation coefficient was slightly lower ($r \approx 0.48$) than in the current study. These comparisons suggest that the present study not only aligns with existing literature but also demonstrates a moderately stronger relationship between inquiry-based instruction and performance within the English language domain. In a broader context, the outcome also resonates with Bruner's discovery learning model, which advocates for guided inquiry where learners discover relationships and principles through exploration rather than passive reception. The current study reaffirms that when English language teachers in public secondary schools act as facilitators rather than sole transmitters of knowledge, students are empowered to take ownership of their learning, resulting in better academic outcomes. Therefore, the result of this study not only confirms existing empirical literature but also reinforces the relevance of inquiry-based strategies in the Nigerian secondary school context. It suggests that incorporating more inquiry-driven practices into English language instruction may serve as a viable path toward improving students' achievement in the subject.

The finding on the relationship between brainstorming method and students' academic achievement in English language in public secondary schools in Anambra State revealed a moderate positive and statistically significant relationship between the use of the brainstorming method and students' academic achievement in English language, with a Pearson correlation coefficient of $r = 0.49$ and a p-value < 0.05. This result implies that students taught through brainstorming-based strategies tend to perform better in English language than those taught through more traditional, teacher-dominated approaches. Brainstorming as a pedagogical method encourages students to generate ideas freely, exchange perspectives, and approach problems creatively. It creates a student-centered classroom environment, where learners actively co-construct meaning rather than passively

receive information. These characteristics are consistent with the social constructivist theory that underpins this study, particularly Vygotsky's notion of the Zone of Proximal Development (ZPD). Through guided participation and peer collaboration, brainstorming enables learners to extend their thinking beyond what they could achieve individually. Students' responses in Cluster B confirmed the value of brainstorming as a learning tool. Many reported that brainstorming sessions helped them organize their thoughts, build confidence in speaking, and engage more fully with both peers and teachers. These outcomes point to the method's dual role in fostering both linguistic competence and critical thinking.

The findings resonate with the works of Babut (2021) and Malkawi & Smadi (2018), who emphasized that brainstorming stimulates cognitive activity and enhances student engagement by temporarily suspending judgment and encouraging the free flow of ideas. In their studies, learners exposed to brainstorming techniques demonstrated statistically significant improvements in both oral and written communication tasks. While their correlation coefficients were slightly lower ($r \approx 0.41–0.45$), their findings still point toward a positive and meaningful relationship between brainstorming and academic performancereinforcing the present study's outcome. Furthermore, Masri and Smadi (2023) noted that brainstorming contributes to risk-free learning environments, where students are more willing to contribute without fear of making mistakes. This is especially critical in language classrooms, where anxiety often impedes verbal participation. Brainstorming helps reduce such barriers by allowing students to express ideas collaboratively, drawing from each other's strengths and building on shared knowledge. From a theoretical perspective, the current findings further support the constructivist view of learning as a social process, and reinforce the role of the teacher as a facilitator. As emphasized by Clark et al. (2019) and Fontaine (2017), the teacher's role in moderating brainstorming sessions is crucialposing relevant questions, guiding discussion, and ensuring equitable participation across all students.

However, it's important to recognize that the success of brainstorming as a teaching method depends on its structure and implementation. As Wagbara (2020) pointed out, poorly facilitated sessions may lead to off-topic discussions or dominance by a few voices, which can limit the benefits for the entire class. Effective brainstorming requires clear objectives, active moderation, and post-session reflection to ensure learning goals are achieved. In conclusion, this study provides both empirical and theoretical support for the use of brainstorming as a viable instructional method in English language classrooms. The statistically significant relationship ($r = 0.49$, $p < 0.05$) found in this research confirms that brainstorming does more than promote creativity it positively influences academic performance. When applied thoughtfully, brainstorming enhances learners' cognitive, social, and expressive capacities, making it a valuable tool for improving achievement in English language across public secondary schools in Nigeria.

Conclusion

Based on the findings, the study concluded that teaching methods play a vital role in determining students' academic achievement, especially in language-based subjects such as English. The findings of the study indicate that each of these teaching methods has a moderate positive and statistically significant relationship with students' academic performance. This means that when these methods are applied effectively in the classroom, they significantly enhance students' comprehension and academic grwoth.

Recommendations

The following recommendations are made following the outcome research:

1. Regular teacher training on diverse, learner-centered teaching strategies and better integration of innovative pedagogies into English language instruction to improve academic outcomes in secondary schools.
2. Teachers should be encouraged to diversify their teaching methods to accommodate different learner types visual, auditory, and kinesthetic and foster better academic achievement.

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