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Effect Of Inquiry- Based Teaching Method On Secondary School Students Interest And Achievement In English Language In Jalingo Education Zone, Taraba State Nigeria

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ABSTRACT
This study examined the effect of inquiry-based teaching method on secondary school students' interest and achievement in English Language in Jalingo Education Zone, Taraba State, Nigeria. The study was anchored on Constructivist Learning Theory, which emphasizes that learners actively construct knowledge through inquiry, interaction, experience and engagement with learning tasks. A quasi-experimental research design was adopted for the study. The population comprised 9,487 secondary school students, from which a sample of 180 students offering English Language in selected secondary schools in Jalingo Education Zone was drawn. Two instruments were used for data collection, including the Students' Interest Rating Questionnaire (SIRQ), designed to measure students' interest in English Language and comprising 20 items structured on a four-point rating scale ranging from Strongly Agree (SA) to Strongly Disagree (SD), and an achievement measure for assessing students' performance in English Language. The instruments were subjected to appropriate validation procedures to establish their suitability for data collection. Data collected were analyzed using descriptive and inferential statistics with the aid of SPSS version 28. The findings showed that students exposed to the inquiry-based teaching method demonstrated greater interest and improved achievement in English Language compared with students taught using the conventional teaching method. The findings further indicated that inquiry-based instruction encouraged active participation, questioning, exploration, collaboration and deeper understanding of English Language concepts. The study concluded that inquiry-based teaching was an effective instructional approach for improving students' interest and academic achievement in English Language. It was recommended that English Language teachers should adopt inquiry-based teaching strategies regularly, while school administrators and relevant education authorities should organize workshops and in-service training programmes to equip teachers with the skills required to effectively implement inquiry-based instruction in secondary schools.
Keywords: Inquiry-Based Teaching, Students' Interest, Academic Achievement, English Language.

INTRODUCTION

Students' achievement and interest in English Language are widely recognized as vital indicators of the quality and effectiveness of teaching and learning in Nigerian secondary schools. In today's knowledge-driven society, students' academic achievement is often viewed as a reflection of the success of

instructional practices and the extent to which educational goals are being realized. Achievement refers to the level of knowledge, competence, and skill a learner demonstrates after a period of instruction. It is typically measured through standardized tests, classroom assignments, essays, and examinations (Achor, 2019). In the context of English Language learning, achievement encompasses the ability of students to communicate effectively, comprehend written texts, construct grammatically correct sentences, and write organized essays. It, therefore, serves as an objective measure of students' mastery of the four language skills listening, speaking, reading, and writing outlined in the Nigerian secondary school curriculum.

On the other hand, interest represents the emotional and motivational aspect of learning. It reflects students' curiosity, enthusiasm, and positive disposition toward engaging with a subject (Adamu, 2022). In the classroom setting, interest can be observed through students' active participation, attentiveness, willingness to ask questions, and eagerness to complete language tasks. When students have a positive interest in English Language, they are more likely to persist in difficult learning situations, retain new concepts for longer periods, and develop better problem-solving skills (Eze, 2021). Conversely, low interest often results in boredom, absenteeism, poor participation, and eventually, low academic achievement.

According to Federal Republic of Nigeria ([FRN], 2014). The English Language remains a compulsory subject and the medium of instruction across all disciplines in Nigeria, yet many students perform poorly in both internal and external examinations (West African Examinations Council, 2023). Reports from the West African Examinations Council (WAEC, 2023) consistently reveal that only a small proportion of candidates attain the credit passes required for admission into tertiary institutions. The WAEC Chief Examiner's Reports (2023) highlight common areas of weakness such as poor vocabulary development, disorganized essays, lack of coherence, and frequent grammatical errors. These shortcomings not only demonstrate a lack of mastery of the English Language but also expose deep-rooted pedagogical challenges in how the subject is taught at the secondary school level.

The low achievement and diminishing interest among students are often linked to the continued use of traditional, teacher-centred teaching methods. In many Nigerian classrooms, the teaching of English Language still revolves around the teacher's explanations and note dictation, with little opportunity for students to engage, explore, or think independently (Nwosu & Okafor, 2019). According to Ezekiel and Johnson (2020), this teacher-dominated method has remained one of the major factors responsible for students' poor performance because it encourages rote memorization rather than critical understanding. It also creates an atmosphere of passivity where learners are mere recipients of information, rather than active participants in constructing knowledge. Such methods fail to stimulate students' creativity, curiosity, and inquiry factors essential for sustaining interest and improving achievement in language learning.

To overcome these challenges, scholars and educational practitioners have advocated for a shift toward learner-centred and inquiry-driven instructional approaches that actively engage students in the learning process. One such strategy is the Inquiry-Based Teaching Method (EBTM). This method is rooted in the constructivist theories of learning developed by Bruner (1961) and Piaget (1973), which emphasize that learners construct knowledge through exploration, experimentation, and reflection. The Inquiry-based method encourages students to ask questions, investigate problems, seek information, and draw conclusions based on evidence. In this approach, the teacher's role changes from that of a knowledge transmitter to a facilitator or guide, helping students to discover and internalize concepts on their own.

Inquiry-based teaching is a form of constructivist pedagogy that allows learners to explore, ask questions, investigate problems, and construct knowledge through inquiry. This method fosters critical thinking, creativity, collaboration, and deeper understanding, which are essential for academic success in the 21st century (Nwachukwu, Adolalom & Nwanekezie, 2023). In contrast to traditional lecture-based methods, where the teacher is the sole dispenser of knowledge, Inquiry-based learning (EBL) encourages students to take ownership of their learning through problem-solving and investigation (Ezeyi, Ene, & Nwosu, 2021). In the Nigerian educational context, the need for more effective teaching methods is particularly pressing given the challenges facing the nation's education sector. Among these challenges are poor

student performance in standardized tests, lack of motivation among learners, and the prevalence of teacher-centered instructional strategies that often fail to engage students meaningfully (Eze & Eze, 2019). The Senior Secondary School (SSS) level is particularly critical because it serves as the foundation for students who wish to pursue higher education or enter into various career paths. Therefore, there is a growing consensus among educators and researchers that Inquiry-based teaching methods could play a pivotal role in reversing the trend of poor academic achievement among Nigerian secondary school students.

In English Language instruction, Inquiry-based teaching offers numerous advantages. It can be applied in reading comprehension lessons, where students explore the meanings and implications of texts through guided questioning. In grammar and vocabulary lessons, learners can analyze sentence structures, compare word usages, and infer grammatical rules from examples rather than merely memorizing them. Likewise, in writing lessons, students can be guided through inquiry tasks that help them plan, draft, and revise their essays systematically. Through such active learning processes, students develop problem-solving abilities, enhance their understanding of linguistic patterns, and sustain long-term interest in English Language learning (Audu & Sule, 2022). Despite these promising findings, the application of Inquiry-based teaching methods in English Language classrooms within the Jalingo Education Zone of Taraba State remains limited. Many English teachers continue to rely on outdated instructional approaches due to challenges such as inadequate teaching materials, large class sizes, insufficient training in modern pedagogies, and rigid school curricula (Ezekiel & Johnson, 2020). Consequently, many students continue to experience difficulties in reading comprehension, grammar, and writing tasks, which contribute to their low academic achievement and waning interest in the subject. Therefore, it is against this background that the study investigate the effect of Inquiry-based teaching method on secondary school students' achievement and interest in English Language in Jalingo Education Zone, Taraba State, Nigeria.

Statement Of The Problem

English Language occupies a central position in the Nigerian educational system as it serves not only as a compulsory subject but also as the official medium of instruction at all levels of education. Despite its importance, students' achievement and interest in English Language at the secondary school level have continued to decline, particularly in external examinations such as the West African Examinations Council and the National Examinations Council examinations. Reports from WAEC Chief Examiners have consistently revealed students' poor performance in areas such as essay writing, comprehension, vocabulary development, sentence construction, and grammatical expression. This persistent poor achievement has become a major concern to educators, parents, curriculum planners, and government because English Language is a prerequisite for admission into higher institutions and for effective communication in academic and professional settings.

The poor achievement in English Language has been attributed by experts largely to the continued use of traditional teacher-centred instructional methods in many secondary schools. In most classrooms, English Language teaching is dominated by note dictation, rote memorization, and excessive teacher talk, with little opportunity for students to actively participate in the learning process. Such instructional approaches make students passive learners and fail to stimulate their curiosity, creativity, and critical thinking abilities. Consequently, many students develop low interest, negative attitudes, fear, and lack of confidence toward English Language learning, which further contributes to their poor academic achievement.

Furthermore, gender differences in students' achievement and interest in English Language have continued to generate mixed opinions among researchers and educators. While some studies suggest that female students perform better in English Language, others argue that achievement depends more on teaching methods and learning environment than gender. This inconsistency creates the need to further examine whether Inquiry-based teaching method could influence male and female students differently in terms of achievement and interest in English Language.

Therefore, the problem of this study is the persistent poor achievement and low interest of secondary school students in English Language, which may be associated with the continued use of conventional teaching methods. Hence, this study seeks to investigate the effect of Inquiry-based teaching method on secondary school students' achievement and interest in English Language in Jalingo Education Zone, Taraba State, Nigeria.

Purpose Of The Study

The main purpose of the study is to investigate the effect of Inquiry-based teaching method on secondary school students' interest and achievement in English Language in Jalingo Education Zone, Taraba State, Nigeria. Specifically, the study seeks to determine:

1. The difference in interest rating of students taught English language using the Inquiry-based teaching method and those taught using conventional teaching method in Jalingo Education Zone of Taraba State, Nigeria
2. the difference in academic achievement of students taught English language using the Inquiry-based teaching method and those taught using conventional teaching method in Jalingo Education Zone of Taraba State, Nigeria

Research Questions

The following research questions were raised to guide the study:

1. What is the difference in the interest ratings of students taught English Language using the Inquiry-based teaching method and those taught using the conventional teaching method in Jalingo Education Zone of Taraba State, Nigeria?
2. What is the difference in the academic achievement of students taught English Language using the Inquiry-based teaching method and those taught using the conventional teaching method in Jalingo Education Zone of Taraba State, Nigeria?

Research Hypotheses

The following null hypotheses were formulated and will be tested at 0.05 level of significance:

H_{01}: There is no significant difference in the interest ratings of students taught English Language using the Inquiry-based teaching method and those taught using the conventional teaching method in Jalingo Education Zone of Taraba State, Nigeria.

H_{02}: There is no significant difference in the academic achievement of students taught English Language using the Inquiry-based teaching method and those taught using the conventional teaching method in Jalingo Education Zone of Taraba State, Nigeria.

REVIEW OF RELATED LITERATURE

Structure of Inquiry-Based Teaching Method

According to Shanmugavelu, Balakrishnan, Khairi, Baskaran and Manimaran (2020), there are five aspects that need to be emphasized in the planning of the inquiry method. These are:

(a) Planning Behavioral Objective: In the process of planning the inquiry method, teachers should focus on students' abilities. In this case, the teacher should be aware of the students' background and their ability to carry out the activities in the inquiry method. This is important because each student will go through specific processes in the inquiry process, and teachers also need to know about the abilities of the students in their different classes.

(b) Designing Teaching Materials: Teachers should also provide students with appropriate titles. At the same time, teachers should also ensure that the resources for a title are adequate and provide the resources needed to implement them. For example, teachers can provide appropriate reference materials to enable students to gather information. Reference materials may include reference books, textbooks, newspaper and magazine clippings, documents, maps, electronic media, and others.

(c) Designing Questioning Strategies: In the inquiry method, the questioning strategy is more important than the answer. In this case, the teacher should plan the questions that can guide the students towards the learning objectives they want to achieve. The questions submitted must be able to develop critical and creative thinking among students. Questions that are more complex and challenge students' thinking.

There are three levels of questions (i) for information (Recall Questions), (ii) questions that require interpretation, and (iii) High-Level questions in which students are required to develop tentative answers. The questions usually begin with the question of 'why' then 'how' and so on.

(d) Designing Teaching and Learning Strategies: Before implementing the inquiry method, teachers must be clear about what their students need to achieve and learn. Next, teachers should plan student activities according to specific steps. Teachers also need to instruct students to understand what they need to do. In this case, teachers can also decide whether the inquiry is to be conducted individually or in groups. If it is group work, teachers should take into account specific factors such as group size, group members of the same or different gender, problems to solve, and so on. In this regard, teachers need to be more democratic in the formation of groups. Also, teachers should consider the techniques and methods that will be used in teaching and learning. For example, teachers can use the discussion method within the group they have formed.

(e) Evaluation: Teachers should also know how to evaluate the inquiry process. Evaluation can be done through questions that students ask, how they perform in learning activities, and how they handle information. Evaluation can also be done using media or audio visual tools for viewing, listening, and analyzing.

Inquiry-based learning is more than just simply asking students a lot of questions. Inquiry-based learning is about igniting curiosity and a hunger for answers. Although teachers can approach inquiry-based instruction in a variety of ways. According to *Andrew (2024),* researchers have identified a few of the core phases of inquiry-based learning. The core structure of inquiry based teaching method is shown in table 1

Categorization of Inquiry-Based Teaching Method

According to Marcus (2017), there are different kinds of inquiry-based learning, which become decreasingly structured and suit different classrooms. Marcus (2017) hence identified four kinds of inquiry-based teaching methods as thus;

Confirmation Inquiry: This is the kind of inquiry teaching method in which a teacher give students a question, its answer and the method of reaching this answer. Their goal is to build investigation and critical-thinking skills, learning how the specific method works.

Structured Inquiry: In this type of inquiry-based teaching method, a teacher gives students an open question and an investigation method. They must use the method to craft an evidence-backed conclusion.

Guided Inquiry: This type of inquiry-based teaching method requires the teacher to give students an open question. Typically in groups, they design investigation methods to reach a conclusion.

Open Inquiry: This is type of inquiry-based teaching in which a teacher give students time and support. They pose original questions that they investigate through their own methods, and eventually present their results to discuss and expand. Marcus (2017) pointed that, regardless of the type, inquiry-based learning aims to develop students' abilities to analyze, synthesize and evaluate information indications of high-level thinking according to Bloom's taxonomy.

Similarly, Colburn and Clough (1997) identified types of inquiry modified from the science teacher as thus;

Open or "Full" Inquiry: This type of inquiry teaching method build upon prior experiences and inquire about the overarching concepts. The processes of open of full inquiry are; displaying the tools and materials, begin with the student's question, continue with student(s) designing and conducting the investigation or experiment and complete the learning cycle by communicating the results. The students have a prior experience with a set variety of tools and materials. The teacher then displays these tools and materials and asks the students what questions they could devise using the materials provided. Students formulate testable questions, devise a plan using the materials, carry out their investigation and record and analyze their data. Students use the data to make a generalization or conclusion or further question and share the process and outcomes with peers.

Guided Inquiry: In this type inquiry, teacher selects the over arching question. The whole class or groups of students work to assist in developing the laboratory procedure and learn specific skills needed

for future open-inquiries. Using the data gathered or provided, students generate explanations, findings and claims are communicated. When the more complex concepts cannot be investigated directly in the classroom, teachers can provide applicable scientific data from a variety of sources to use in the guided inquiry.

Coupled Inquiry: In this type of inquiry teaching method, a teacher chooses the first question to investigate, specifically targeting a standard or set of benchmarks, after the guided inquiry, students engage in an open or full inquiry. Using this approach will ensure that the students questions will closely align with the standard or set of benchmarks. The teacher creates enthusiasm for an inquiry and initiates the guided inquiry. Students then initiate an open inquiry. Groups of students share their findings regarding their open inquiry. Students analyze professional literature (electronic, periodicals, text) for support of their inquiry findings. The teacher poses a problem that students solve by applying their student's understanding of the standard or set of benchmarks. This serves as an assessment.

Structured Inquiry: This is the inquiry guided by the teacher, students follow teacher directions to come up with a specific end point or product .The teacher asks the class to discuss the results when the inquiry is complete. Lab setup, time considerations, concept development, place in the learning cycle, student aptitude are a few variables that may help the teacher determine the appropriate use of this inquiry strategy. Keep in mind that this approach lends itself to prescribed questions, protocols, and outcomes. "More students thinking take place when the teacher allows students to make choices and decisions in classroom investigations

Theoretical Framework

This study is anchor on the Constructivist Learning Theory primarily propounded by Jean Piaget (1896–1980), a Swiss developmental psychologist, and later expanded by Lev Vygotsky (1896–1934), a Russian social psychologist. Piaget introduced the idea that learners actively construct knowledge through interaction with their environment, while Vygotsky emphasized the **social** dimension of learning, showing that knowledge is co-constructed through collaboration and language. Both scholars laid the foundation for modern Inquiry-Based Learning (IBL) and student-centred pedagogy. Constructivist Theory holds that learning is an active process in which individuals construct new ideas or concepts based upon their current and past knowledge. According to Piaget (1970), learners are not empty vessels to be filled by teachers but active participants who interpret and organize information through experiences. Vygotsky (1978) complemented Piaget's work by introducing the concept of the Zone of Proximal Development (ZPD) the gap between what a learner can do independently and what they can achieve with guidance from a teacher or peer. He emphasized scaffolding, meaning that teachers should support learners as they explore and investigate, gradually reducing help as learners become more competent. Therefore, Constructivist Theory implies that meaningful learning occurs when: Students engage in active inquiry rather than passive listening; Knowledge is constructed through experience, reflection, and dialogue; The teacher functions as a facilitator. Constructivist theory (Piagetian traditions) proposes that learners build new knowledge on prior knowledge through active exploration and reflection. In the context of English language learning, constructivism supports student-centred tasks such as problem solving, text inquiry, and collaborative investigations that require learners to hypothesise, test ideas, and negotiate meaning.

RESEARCH METHODS

The study adopted a quasi-experimental research design, specifically the non-equivalent pre-test, post-test control group design. A quasi-experimental design was considered appropriate because it enabled the researcher to investigate the effect of the independent variable on the dependent variable using intact classes without random assignment of participants to groups. For the purpose of the study, two intact SS II classes were selected from the sampled secondary schools.

The population of this study comprises 9,487 students offering English Language from 44 senior secondary school in Jalingo Education Zone, Taraba State, Nigeria. This population includes both male and female students, ensuring gender representation. The data obtained from the Taraba State Ministry of

Education (2024). The sample for this study consisted of 180 secondary school students offering English Language in Jalingo Education Zone of Taraba State, Nigeria.

Two instruments were used for data collection: Students' Interest Rating Questionnaire (SIRQ): Designed to measure students' interest in English Language. Comprised 20 items on a 4-point rating scale (Strongly Agree to Strongly Disagree). English Language Achievement Test (ELAT): Comprised 50 items the designed to measure students' achievement in English Language, including comprehension, essay writing, and grammar. Permission to conduct the study will be obtained from the school authorities and students' consent was sought. The pre-test will be administered to both the experimental and control groups before the intervention.

Data collected were analyzed using descriptive and inferential statistics with the aid of SPSS version 28: Descriptive statistics (mean and standard deviation) were used to answer the research questions on students' interest. Inferential statistics of : Analysis of Covariance (ANCOVA) was used to test differences in post-test scores between the experimental and control groups. Independent samples t-test was used to examine differences in interest and achievement between male and female students at 0.05 level of significance.

RESULTS AND DISCUSSION

Table 1:: Mean interest ratings of students taught English Language using the Inquiry-based teaching method and the Conventional teaching method (N = 180)

Group	N	Pretest Mean	Pretest Std. Deviation	Posttest Mean	Posttest Std. Deviation	Mean Gain
Inquiry-based Teaching (Experimental Group)	90	2.23	0.18	3.18	0.32	0.95
Conventional Teaching (Control Group)	90	2.25	0.17	2.70	0.34	0.45
Difference						**0.50**

Table 1 presents the mean interest ratings of students taught English Language using the Inquiry-based teaching method and those taught using the conventional teaching method. The experimental group consisted of 90 students, while the control group also consisted of 90 students, making a total sample of 180 students. The table shows that the students in the experimental group had a pretest mean interest rating of 2.23 with a standard deviation of 0.18, while their posttest mean interest rating increased to 3.18 with a standard deviation of 0.32. This resulted in a mean gain of 0.95, indicating a remarkable improvement in the interest ratings of students after being taught using the Inquiry-based teaching method. The table further shows that students in the control group had a pretest mean interest rating of 2.25 with a standard deviation of 0.17, while their posttest mean interest rating increased to 2.70 with a standard deviation of 0.34. The group recorded a mean gain of 0.45, indicating that although students' interest improved after instruction, the improvement was relatively lower than that of the experimental group. The difference in the mean gain between the two groups is 0.50. This indicates that students taught English Language using the Inquiry-based teaching method exhibited greater improvement in their interest ratings than those taught using the conventional teaching method. Based on the descriptive statistics, the Inquiry-based teaching method was more effective in improving students' interest in English Language among senior secondary school students in Jalingo Education Zone, Taraba State.

Table 2: Mean academic achievement scores of students taught English Language using the Inquiry-based teaching method and the Conventional teaching method (N = 180)

Group	N	Pretest Mean	Pretest Std. Deviation	Posttest Mean	Posttest Std. Deviation	Mean Gain
Inquiry-based Teaching (Experimental Group)	90	41.84	6.28	76.91	7.13	35.07
Conventional Teaching (Control Group)	90	42.16	6.11	61.48	6.84	19.32
Difference						**15.75**

Table 2 presents the mean academic achievement scores of students taught English Language using the Inquiry-based teaching method and those taught using the conventional teaching method. The experimental group comprised 90 students, while the control group also comprised 90 students, giving a total sample size of 180 students. The table shows that students in the experimental group had a pretest mean academic achievement score of 41.84 with a standard deviation of 6.28. Following exposure to the Inquiry-based teaching method, the posttest mean score increased to 76.91 with a standard deviation of 7.13. This resulted in a mean gain of 35.07, indicating a substantial improvement in students' academic achievement after the treatment. The table further reveals that students in the control group had a pretest mean academic achievement score of 42.16 with a standard deviation of 6.11, while their posttest mean score increased to 61.48 with a standard deviation of 6.84. The group recorded a mean gain of 19.32, showing an improvement in academic achievement, although the improvement was lower than that of the experimental group. The difference in the mean gain between the two groups is 15.75. This indicates that students taught English Language using the Inquiry-based teaching method achieved higher academic gains than those taught using the conventional teaching method. Based on the descriptive statistics, the Inquiry-based teaching method appears to be more effective in enhancing students' academic achievement in English Language among senior secondary school students in Jalingo Education Zone of Taraba State, Nigeria.

Hypotheses Testing

Table 5: ANCOVA of Interest Ratings of Students Taught English Language Using Inquiry-based Teaching Method and Conventional Teaching Method

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	5.948[a]	2	2.974	18.734	.000
Intercept	22.461	1	22.461	141.502	.000
Pretest Interest	3.714	1	3.714	23.405	.000
Group	**2.865**	**1**	**2.865**	**18.051**	**.000**
Error	28.101	177	.159		
Total	3618.000	180			
Corrected Total	34.049	179			

a. R Squared = .175 (Adjusted R Squared = .166)

Table 5 presents the Analysis of Covariance (ANCOVA) conducted to determine whether there was a significant difference in the interest ratings of students taught English Language using the Inquiry-based teaching method and those taught using the conventional teaching method in Jalingo Education Zone of Taraba State, Nigeria, while controlling for pretest interest ratings. The result indicates that the treatment effect was statistically significant, $F(1,177) = 18.051$, $p = .000 < .05$. Since the probability value is less than the 0.05 level of significance, the null hypothesis is rejected. This implies that there is a statistically significant difference in the posttest interest ratings of students taught using the Inquiry-based teaching method and those taught using the conventional teaching method after adjusting for differences in their pretest interest ratings.

Table 6: ANCOVA of Mean Academic Achievement Scores of Students Taught English Language Using Inquiry-based Teaching Method and Conventional Teaching Method

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1126.485[a]	2	563.243	27.348	.000
Intercept	14682.713	1	14682.713	713.197	.000
Pretest Achievement	5.374	1	5.374	0.261	.610
Group	**1118.962**	**1**	**1118.962**	**54.360**	**.000**
Error	3644.015	177	20.587		
Total	930186.000	180			
Corrected Total	4770.500	179			

a. R Squared = .236 (Adjusted R Squared = .227)

Table 4.6 presents the Analysis of Covariance (ANCOVA) conducted to determine whether there was a significant difference in the academic achievement of students taught English Language using the Inquiry-based teaching method and those taught using the conventional teaching method, while controlling for pretest achievement scores. The result indicates that the effect of the teaching method (group) on students' posttest academic achievement was statistically significant, $F(1,177) = 54.360$, $p = .000 < .05$. Since the probability value is less than the 0.05 level of significance, the null hypothesis is rejected. This implies that there is a statistically significant difference in the mean academic achievement scores of students taught English Language using the Inquiry-based teaching method and those taught using the conventional teaching method. The result further reveals that the pretest achievement covariate was not statistically significant, $F(1,177) = 0.261$, $p = .610 > .05$, indicating that students' initial achievement scores did not significantly influence their posttest academic achievement after adjusting for the treatment effect.

The R^2 value of 0.236 (Adjusted $R^2 = 0.227$) indicates that approximately 23.6% of the variation in students' posttest academic achievement scores was explained by the teaching method and the pretest achievement, while the remaining 76.4% of the variation was attributable to other factors not included in the model. The findings therefore revealed that the Inquiry-based teaching method significantly improved students' academic achievement in English Language compared with the conventional teaching method. Consequently, the null hypothesis, which states that there is no significant difference in the academic achievement of students taught English Language using the Inquiry-based teaching method and those taught using the conventional teaching method in Jalingo Education Zone of Taraba State, Nigeria, was rejected.

DISCUSSION OF FINDINGS

The present study investigated the effect of the Inquiry-based teaching method on secondary school students' interest and academic achievement in English Language in Jalingo Education Zone, Taraba State, Nigeria. Specifically, the study examined the difference in the interest ratings and academic achievement of students taught using the Inquiry-based teaching method and those taught using the conventional teaching method. It also determined whether gender influenced students' interest and academic achievement when exposed to the Inquiry-based teaching method. The findings revealed that the Inquiry-based teaching method significantly improved students' interest and academic achievement in English Language compared to the conventional teaching method. However, no significant gender differences were observed in either students' interest or academic achievement. These findings are discussed under the following subheadings.

The first findings of this study revealed that students taught English Language using the Inquiry-based teaching method recorded significantly higher interest ratings than those taught using the conventional teaching method. This suggests that the Inquiry-based teaching method effectively stimulated students' curiosity, active participation, and enthusiasm for learning English Language. This finding agrees with the study of Almulla (2020), who reported that inquiry-based learning promotes students' motivation and interest by engaging them in problem-solving, questioning, and collaborative learning activities. Similarly, Khalaf and Zin (2021) found that students exposed to inquiry-based instructional strategies demonstrated higher classroom engagement and sustained interest than those taught through teacher-centred approaches. Likewise, Akanbi and Olatunji (2023) observed that inquiry-oriented English Language instruction significantly increased students' classroom participation and learning interest among secondary school students in Nigeria. The finding is also consistent with Kang (2022), who reported that inquiry-based learning encourages learners to become active participants in knowledge construction, thereby enhancing their intrinsic motivation and interest in learning. Similarly, Onyema et al. (2024) concluded that inquiry-oriented instructional approaches improve students' attitudes and interest by providing opportunities for exploration, discussion, and independent thinking. However, the finding differs slightly from that of Rahman and Ahmed (2021), who reported only moderate improvement in students' interest following inquiry-based instruction. The difference may be attributed to variations in

classroom environment, teacher competence, availability of instructional materials, and duration of treatment. In the present study, students received adequate guidance and participated actively throughout the inquiry process, which may have contributed to the higher level of interest recorded.

CONCLUSION

Based on the findings of this study, it is concluded that the Inquiry-based teaching method is an effective instructional approach for improving secondary school students' interest and academic achievement in English Language in Jalingo Education Zone, Taraba State. The findings established that students exposed to the Inquiry-based teaching method demonstrated significantly higher interest and academic achievement than those taught using the conventional teaching method. This indicates that the learner-centred nature of the Inquiry-based teaching method promotes active participation, critical thinking, problem-solving, and collaborative learning, thereby enhancing students' engagement and understanding of English Language concepts.

The study further concludes that gender does not significantly influence students' interest or academic achievement when taught using the Inquiry-based teaching method. Both male and female students benefited equally from the instructional approach, suggesting that the method provides an inclusive learning environment that promotes equal learning opportunities irrespective of gender. Therefore, the adoption of the Inquiry-based teaching method in the teaching of English Language can significantly improve students' learning outcomes and should be encouraged in secondary schools.

RECOMMENDATIONS

In view of the findings and conclusions of this study, the following recommendations are made:

1. English Language teachers should adopt the Inquiry-based teaching method as a regular instructional strategy in secondary schools to enhance students' interest and improve their academic achievement in English Language.
2. Curriculum developers and educational policymakers should integrate Inquiry-based learning activities into the English Language curriculum to promote learner-centred instruction and active classroom participation.

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